



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, Chanderlok Building, Janpath, New Delhi- 110001.

विषय: मार्च, 2024 माह की मार्केट मॉनिटरिंग रिपोर्ट।

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

महोदय/ Sir,

मार्च, 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 March, 2024 is enclosed herewith for kind information and perusal.

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

- (i) मार्च, 2024 माह में देश में कुल 138,614 MU विद्युत का कारोबार किया गया, जिसमें से 67,943 MU का कारोबार अंतर्राज्यीय पारेषण प्रणाली (Inter State Transmission System) के माध्यम से किया गया था और शेष राज्य नियंत्रित उत्पादन स्टेशनों से अंतराराज्यीय पारेषण प्रणाली (Intra State Transmissions System) के माध्यम से किया गया। In the month of March, 2024 a total of 138,614 MU of electricity was transacted in the country out of which 67,943 MU was transacted through ISTS, and the remaining through state controlled generating stations through Intra State Transmissions System.

- (ii) अल्पावधि मार्केट के अंतर्गत कुल 17,337 MU का कारोबार किया गया था, जिसमें से 10,877 MU पावर एक्सचेंजों के माध्यम से कारोबार किया गया और शेष द्विपक्षीय कारोबार और विचलन (deviations) के रूप में हुआ। इस प्रकार अल्पावधि कारोबार, मार्च, 2024 माह में ट्रेड की गई विद्युत की कुल मात्रा का 12.51 % था और 7.85 % पावर एक्सचेंजों के माध्यम से रहा। A total of 17,337 MU was transacted under Short Term Market, out of which 10,877 MU was transacted through Power Exchanges and remaining happened as bilateral transactions & deviations. Thus, the total short term trade in March, 2024 was 12.51 % of total volume of electricity traded in March, 2024 and 7.85 % 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 25.52 % रहा, जिसमें से पावर एक्सचेंजों के माध्यम से कारोबार 16.01 % रहा। If we compare these transactions with respect to the electricity supplied through ISTS, the short term transactions constitutes about 25.52 % of ISTS transactions, out of which transaction through the power exchanges constitutes 16.01 %.

भवदीय/ Yours faithfully,
Signed by Narsi Ram Meena
Date: 02-05-2024 16:02:38

(विक्रम सिंह / Vikram Singh)
मुख्य अभियंता (आर.ए.)/ Chief Engineer (RA)

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मासिक मार्केट मॉनिटरिंग रिपोर्ट - मार्च, 2024

Monthly Market Monitoring Report

March, 2024



भारत सरकार/ Government of India
विद्युत मंत्रालय/ Ministry of Power
केन्द्रीय विद्युत प्राधिकरण/ Central Electricity Authority
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**मार्च, 2024 की मासिक मार्केट
मॉनिटरिंग रिपोर्ट का सारांश**

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

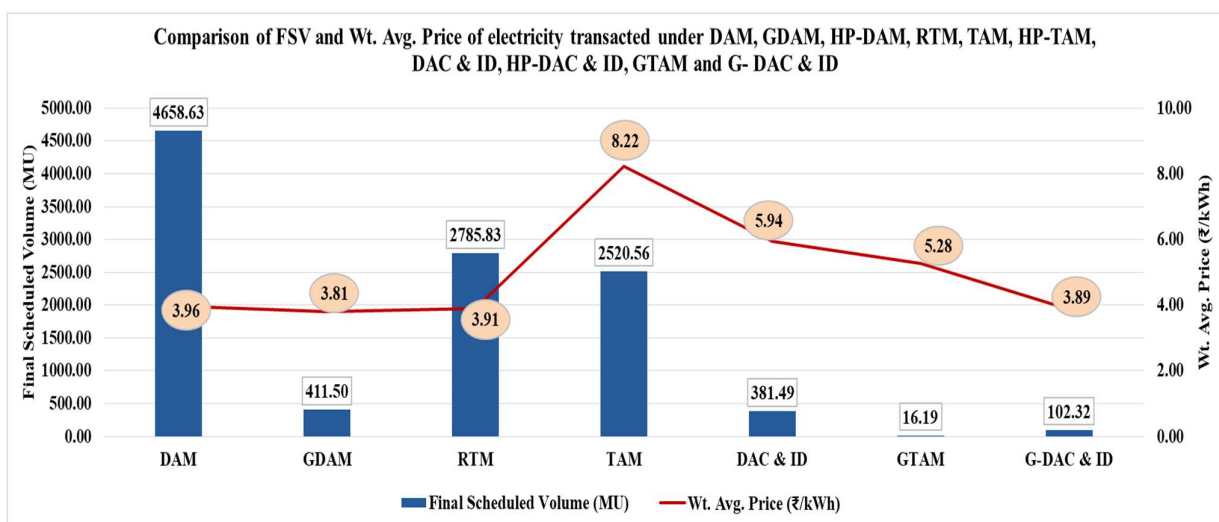
मार्च, 2024 माह के लिए सारांश Summary for Month: March, 2024

भारत में विद्युत एक्सचेंजों पर विद्युत के व्यापार का सारांश

Summary of Electricity Transactions on Power Exchanges in India

- मार्च, 2024 के दौरान विद्युत एक्सचेंजों (यानी आईईएक्स, पीएक्सआईएल और एचपीएक्स) के माध्यम से कुल **10,877 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 **10,877 MU** electricity was transacted through power exchanges i.e. IEX, PXIL & HPX, during the month of March, 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.

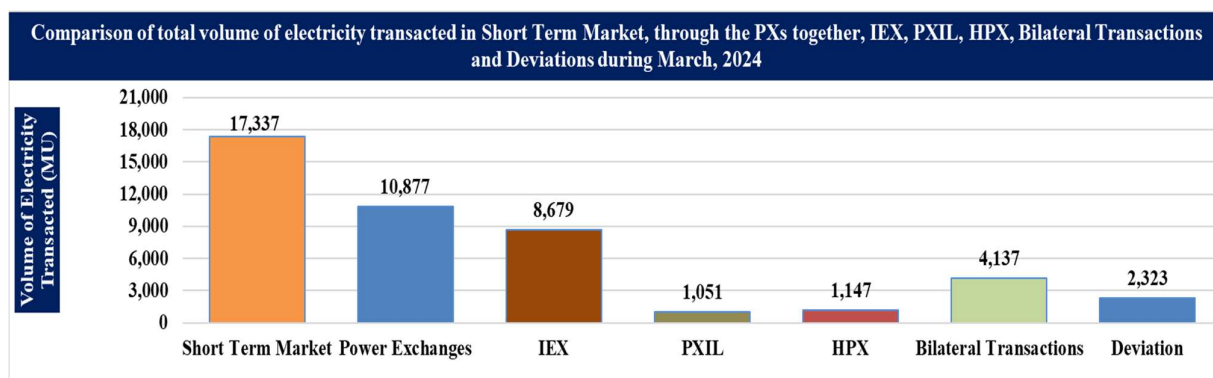


Segment	Transactions in the PXs (IEX, PXIL & HPX combined)			
	FSV (MU)	Wt. Avg. MCP (₹/kWh)	Congestion (MU)	Real Time Curtailment (MU)
DAM	4,659	3.96	23.80	0.00
GDAM	412	3.81	1.85	0.00
HP-DAM	0	-	0.00	0.00
RTM	2,786	3.91	0.04	0.00
TAM	2,521	8.22	13.30	75.86
HP-TAM	0	-	0.00	0.00
DAC & ID	381	5.94	0.00	1.51
HP-DAC & ID	0	-	0.00	0.00
GTAM	16	5.28	0.00	0.00
G-DAC & ID	102	3.89	0.00	0.03
Total in PXs	10,877	5.00*	38.99	77.40

* The total average is weighted average of all market segments.

- द्विपक्षीय व्यापार के तहत कुल **4,137 MU** विद्युत का कारोबार किया गया और **2,323 MU** को विचलन के रूप में लेनदेन किया गया। इस प्रकार कुल **17,337 MU** विद्युत का कारोबार अल्पावधि व्यापार के रूप में किया गया था। मार्च, 2024 के महीने में देश में कुल **138,614 MU** विद्युत की आपूर्ति की गई थी, इस प्रकार मार्च, 2024 माह में कारोबार की गई विद्युत की कुल मात्रा में अल्पावधि बाजार का हिस्सा **12.51%** था।

Under the Bilateral trade, a total of **4,137 MU** of electricity was transacted and **2,323 MU** was transacted as deviation from schedule. Thus, a total of **17,337 MU** of electricity was transacted as short term trade (Power Exchange + Bilateral trade + deviation from schedule). In March, 2024, a total of **138,614 MU** of electricity was supplied in the country, thus, the share of short term market in the total volume of electricity supplied in March, 2024 was **12.51 %**.



- मार्च, 2024 के दौरान संचरण जाम की कुल मात्रा **38.99 MU** थी, जो की विद्युत एक्सचेंजों में कारोबार की गई विद्युत की कुल मात्रा का केवल **0.36 %** है और मार्च, 2024 के महीने के दौरान आपूर्ति की गई कुल ऊर्जा का **0.03 %** है।

The total volume affected by the transmission congestion that happened during the month of March, 2024 was **38.99 MU** which is only **0.36 %** of the total volume of electricity transacted in the power exchanges and **0.03 %** of total energy supplied during the month of March, 2024.

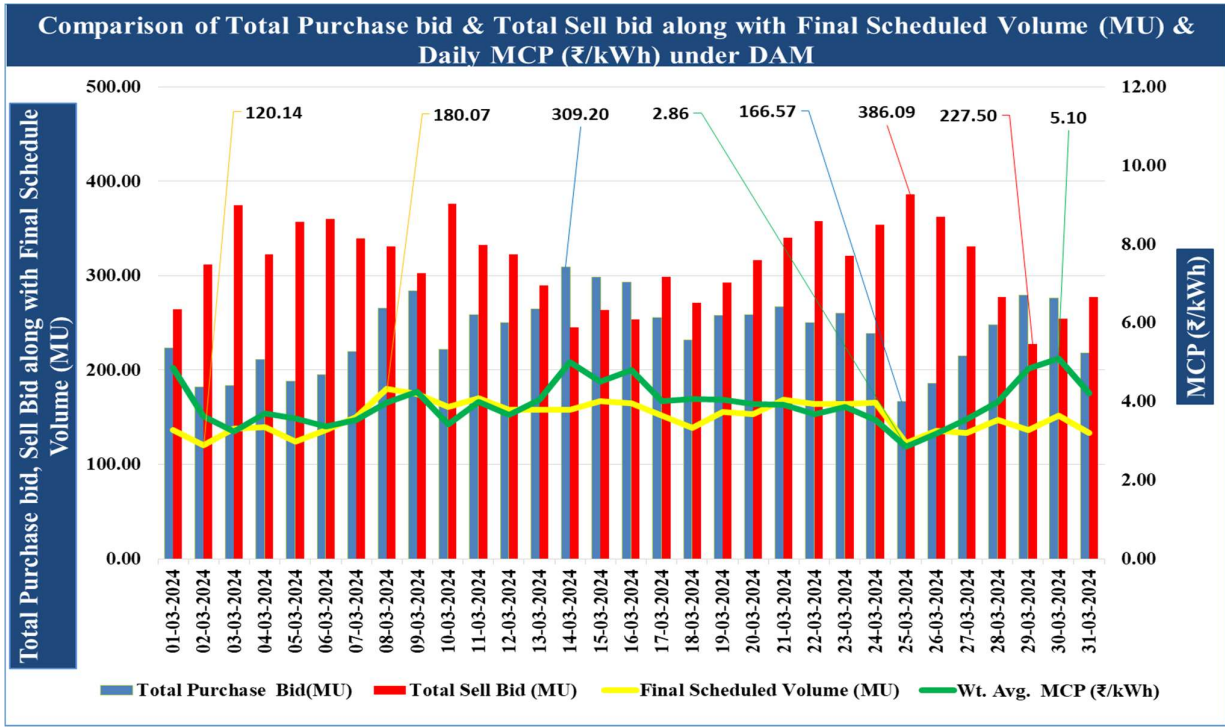
DAM में **19** दिन अर्थात् दिनांक 3 से 12, 14 से 16 एवं 25 से 30 मार्च, 2024, GDAM में **8** दिन अर्थात् दिनांक 3 से 7, 9, 10 एवं 26 मार्च, 2024 और TAM में **1** दिन अर्थात् दिनांक 13 मार्च, 2024 को संचरण जाम देखा गया। जबकि HP-DAM, RTM, HP-TAM, DAC & ID, HP-DAC & ID, GTAM और G-DAC & ID में कोई संचरण जाम नहीं देखा गया। मार्च, 2024 माह के महीने में रिपोर्ट की गई वास्तविक समय में विद्युत कटौती की कुल मात्रा केवल **77.40 MU** थी।

Transmission congestion was observed in DAM on **19** days i.e. 3rd to 12th, 14th to 16th and 25th to 30th March, 2024, in GDAM on **8** days i.e. 3rd to 7th, 9th, 10th and 26th March, 2024 and in TAM on **1** days i.e. 13th March, 2024. Whereas, there was no impact of congestion in HP-DAM, RTM, HP-TAM, DAC & ID, HP-DAC & ID, GTAM and G-DAC & ID. The total volume of real time curtailment reported in the month of March, 2024 was only **77.40 MU**.

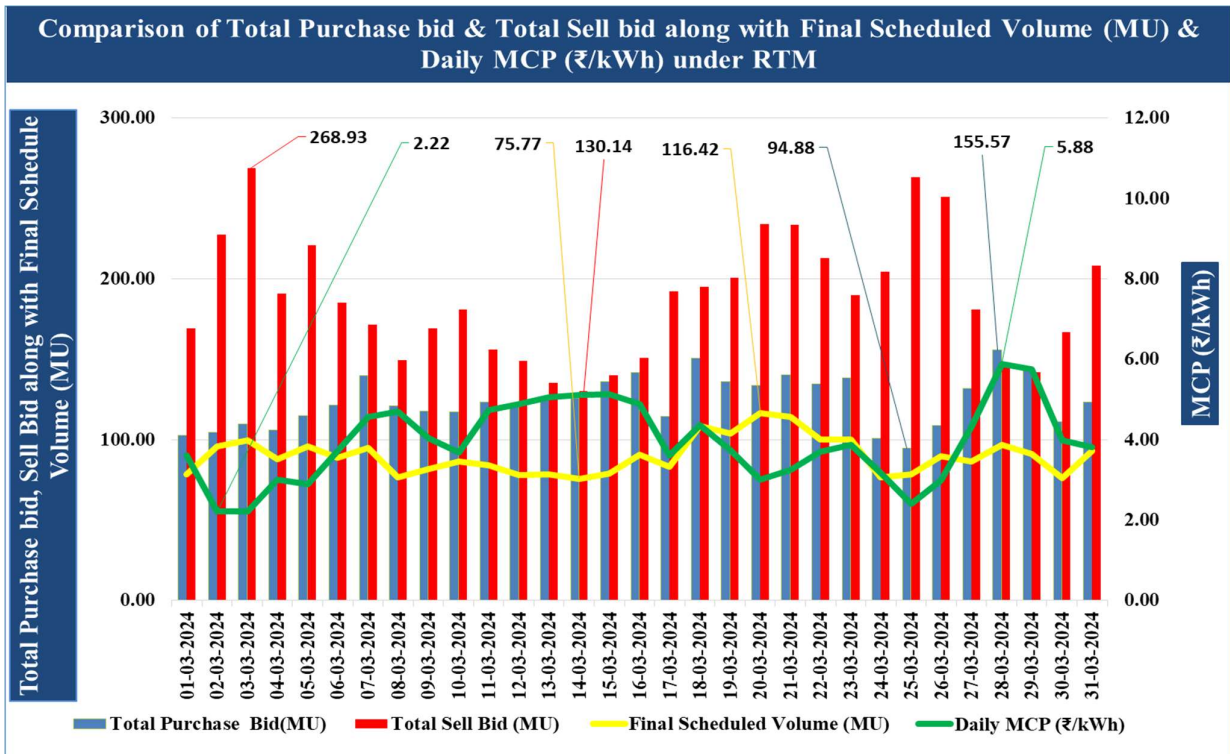
- मार्च, 2024 माह के दौरान अंतर्राज्यीय पारेषण प्रणाली (**ISTS**) में निर्धारित अनुसूचित विद्युत की कुल मात्रा **67,943 MU** थी। मार्च, 2024 के महीने में अल्पावधि बाजार में विद्युत का लेन-देन अंतर्राज्यीय पारेषण प्रणाली (**ISTS**) के माध्यम से अनुसूचित की गई कुल विद्युत की मात्रा का **25.52 %** रहा।
- The total volume of electricity scheduled through ISTS during the month of March, 2024 was **67,943 MU**. The total volume of electricity transacted in the short term market was **25.52 %** of total volume schedule at ISTS in March, 2024.

- मार्च, 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 March, 2024 are shown in following figures:

DAM Volume

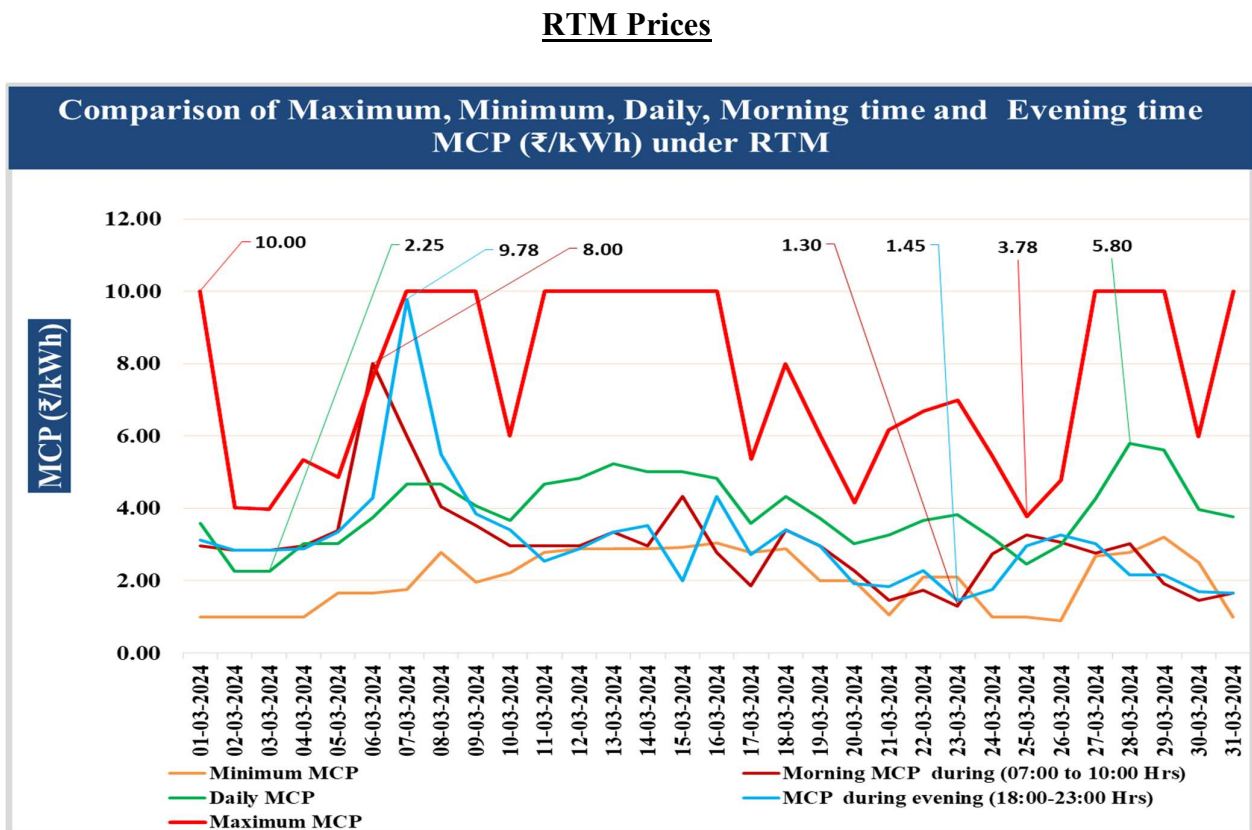
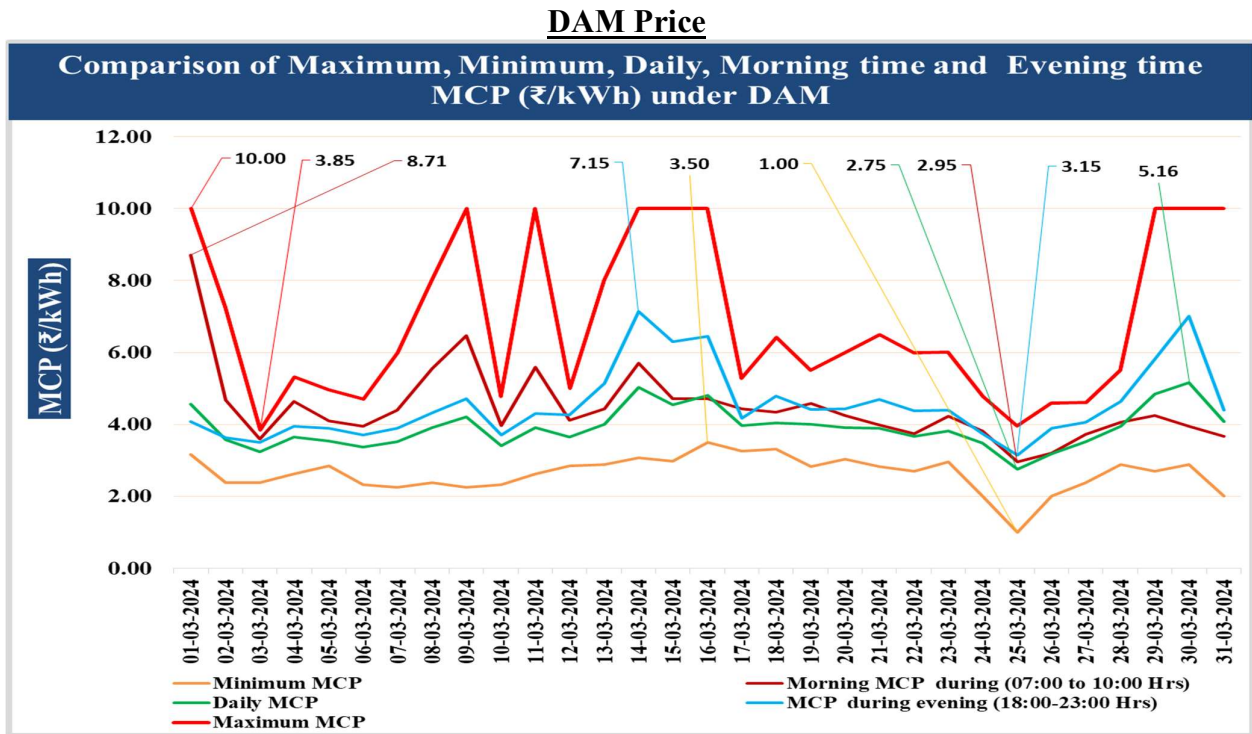


RTM Volume



- मार्च, 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 March, 2024 are shown in following figures:



MARKET MONITORING REPORT DETAILS

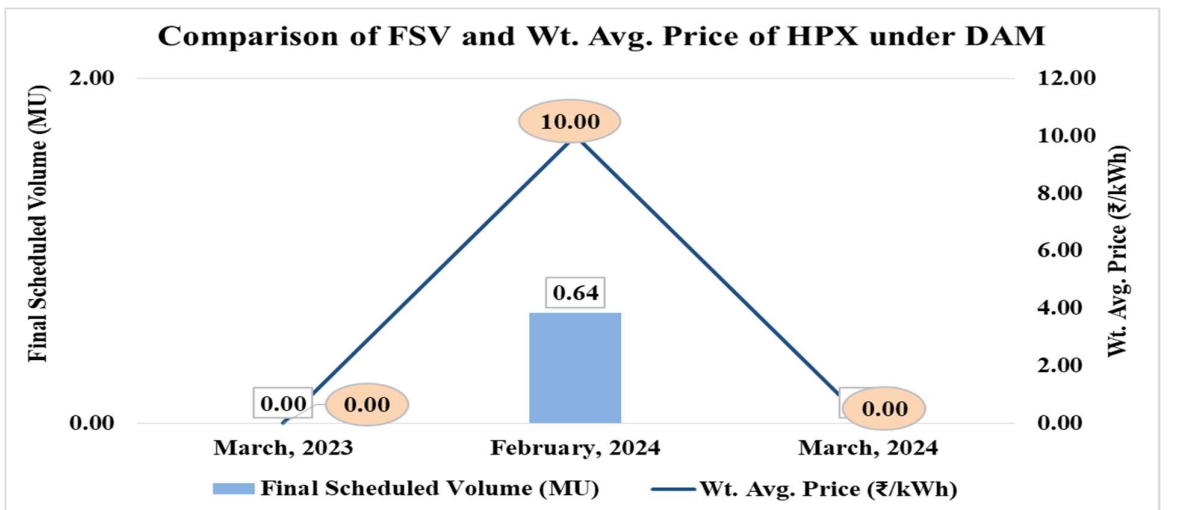
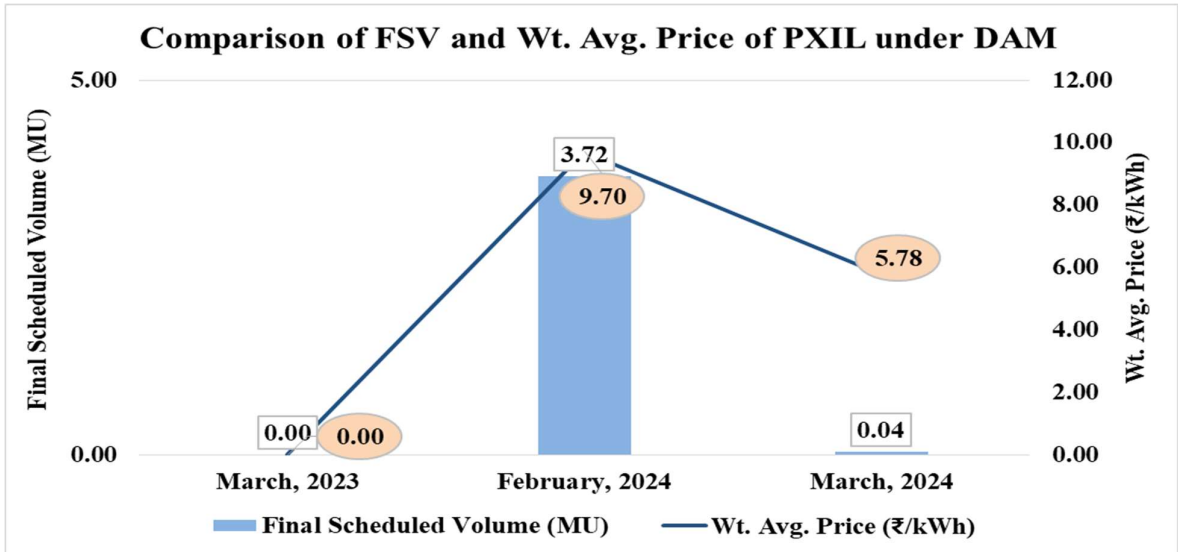
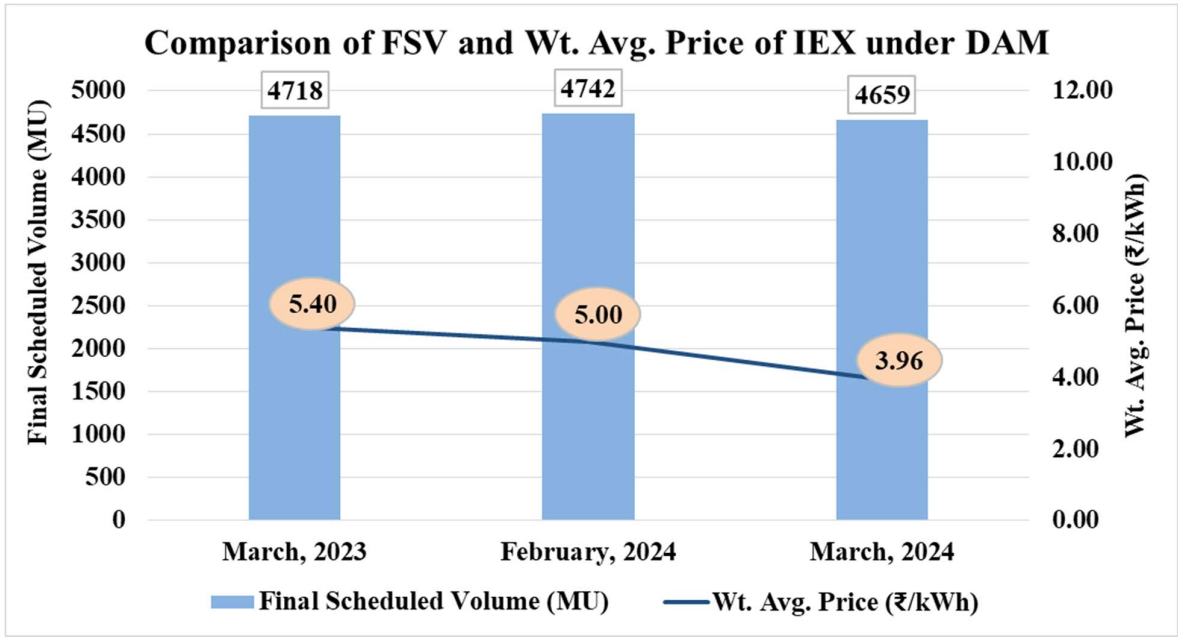
Electricity Transactions on Power Exchanges in India

1. Day Ahead Market (DAM)

The volume of electricity transacted under DAM was 4,658.63 MU at a Wt. Avg. Price of ₹ 3.96/kWh in March, 2024.



- 1.1. The total volume of electricity transacted on the power exchanges, viz., IEX, PXIL and HPX in the Day Ahead Market (DAM) in March, 2024 was **4,658.63 MU**. The total energy supplied in the country during the month of March, 2024 was 138,614 MU. Thus, the volume of electricity transacted on the power exchanges under DAM during March, 2024 was 3.36 % of the total energy supplied in the country. Comparing with the total volume of electricity transacted under DAM during last month February, 2024 i.e. **4,746.11 MU** which was 3.71 % of the total energy supplied (127,828 MU) in the country during February, 2024. Similarly, the total volume of electricity transacted under DAM during previous year i.e. March, 2023, was **4,718.38 MU** which was 3.68 % of the total energy supplied (128,124 MU) in the country during March, 2023.
- 1.2. The volume of electricity transacted on IEX, PXIL and HPX during March, 2024 were **4658.59 MU, 0.04 MU**, respectively and no transaction of electricity took place in HPX. The volume of electricity transacted on IEX, PXIL and HPX during February, 2024 were **4741.75 MU, 3.72 MU and 0.64 MU**, respectively. The volume of electricity transacted on IEX during March, 2023 were **4718.38 MU** and no transaction of electricity took place in PXIL & HPX during March, 2023.
- 1.3. The DAM volume for March, 2024 in IEX is inclusive of Cross Border Transactions of Electricity with Nepal and Bhutan (details given at **Annexure XII**), which was **583.22 MU** (i.e. 291.32 MU bought by Nepal, 291.90 MU bought by Bhutan).
- 1.4. The Average Market Clearing Price (MCP) on IEX during the month of March, 2024 was ₹ **3.96/kWh**, which shows a decrease of 20.80 % & 26.67 % when compared with Wt. Avg. MCP's for the month of February, 2024 and March, 2023, which were ₹ **5.00/kWh** and ₹ **5.40/kWh**, respectively. On PXIL, the Wt. Avg. MCP during the month of March, 2024 was ₹ **5.78/kWh**, which shows a decrease 40.41 % when compared with Wt. Avg. MCP's for the month of February, 2024, which was ₹ **9.70/kWh** and no transaction of electricity took place in PXIL during March, 2023. On HPX, no transaction of electricity took place in HPX during March, 2024.
- 1.5. The Comparison of Final Scheduled Volume (FSV) and Wt. Avg. Price of IEX, PXIL and HPX under DAM for March, 2024 vs February, 2024 and March, 2023 is Shown below:



1.6. The maximum Area Clearing Price (ACP) of ₹ 10.00/kWh in IEX was observed in all 13 regions during 46 time blocks on 1st, 9th, 11th, 14th to 16th & 29th to 31st March, 2024. As there was no congestion in transmission system, the MCP for these time blocks was also ₹ 10.00/kWh. Whereas, in PXIL, the maximum ACP of ₹ 5.78/kWh was observed in all 13 regions during 8 time blocks on 1st & 15th March, 2024. As there was no congestion in transmission system, the MCP for these time blocks was also ₹ 5.78/kWh. Further, in HPX, no transaction of electricity took place during March, 2024.

1.7. The minimum ACP of ₹ 0.50/kWh in IEX was observed in 3 regions during the time block 10:45 - 11:00 Hrs on 25th March, 2024. As there was congestion in transmission system, the MCP for this time-block was also ₹ 1.33/kWh. Whereas, in PXIL, the minimum ACP of ₹ 5.78/kWh was observed in all 13 regions on 8th March, 2024. As there was no congestion in transmission system, the MCP for these time blocks was also ₹ 5.78/kWh. Further, in HPX, no transaction of electricity took place during March, 2024.

1.8. Final Scheduled Volume (FSV), Daily Avg. Market Clearing Prices (MCP), Area Clearing Prices (ACP) under Day Ahead Market during the month of March, 2024 as compared with February, 2024 and March, 2023 are shown in Table- 1A & 1B:

(i) Final Scheduled Volume:

Exchange	Period	Final Scheduled Volume (MU)			
		Total	Minimum (on a day)	Maximum (on a day)	Average (per day)
IEX	March, 2024*	4658.59	120.14	180.07	150.28
	February, 2024*	4741.75	127.30	191.37	163.51
	%Change (Month over Month)	-1.75	-5.62	-5.90	-8.09
	March, 2023*	4718.38	108.25	175.95	152.21
	%Change (Year over Year)	-1.27	10.98	2.34	-1.27
PXIL	March, 2024	0.04	0.02	0.03	0.02
	February, 2024	3.72	0.15	0.72	0.41
	%Change (Month over Month)	-98.92	-86.67	-95.83	-95.12
	March, 2023	-	-	-	-
	%Change (Year over Year)	NA	NA	NA	NA
HPX	March, 2024	-	-	-	-
	February, 2024	0.64	0.64	0.64	0.64
	%Change (Month over Month)	NA	NA	NA	NA
	March, 2023	-	-	-	-
	%Change (Year over Year)	NA	NA	NA	NA

-: No transaction took place

NA: Not Applicable

* DAM Volume in IEX is inclusive of Cross Border Transactions of Electricity with Nepal and Bhutan

Table: 1A

(ii) Daily Wt. Avg. Market Clearing Price (MCP) and Area Clearing Price (ACP):

Exchange	Period	Prices (₹/kWh)				
		Daily MCP (₹/kWh)		ACP (₹/kWh)		Monthly Wt. Avg. MCP (₹/kWh)
		Minimum	Maximum	Minimum	Maximum	Average
IEX	March, 2024	2.86	5.09	0.50	10.00	3.96
	February, 2024	3.74	6.75	2.09	10.00	5.00
	%Change (Month over Month)	-23.53	-24.59	-76.08	0.00	-20.80
	March, 2023	3.23	9.41	2.22	12.00	5.40
	%Change (Year over Year)	-11.46	-45.91	-77.48	-16.67	-26.67
PXIL	March, 2024	5.78	5.78	5.78	10.00	5.78
	February, 2024	5.67	10.00	5.56	10.00	9.70
	%Change (Month over Month)	1.94	-42.20	3.96	0.00	-40.41
	March, 2023	-	-	-	-	-
	%Change (Year over Year)	NA	NA	NA	NA	NA
HPX	March, 2024	-	-	-	-	-
	February, 2024	10.00	10.00	10.00	10.00	10.00
	%Change (Month over Month)	NA	NA	NA	NA	NA
	March, 2023	-	-	-	-	-
	%Change (Year over Year)	NA	NA	NA	NA	NA

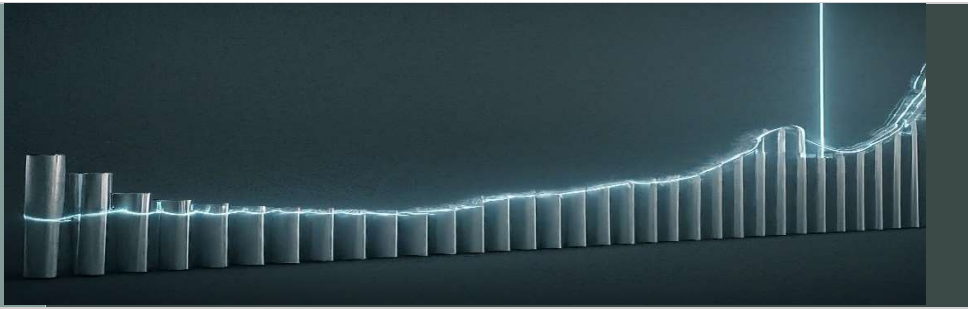
-: No transaction took place

NA: Not Applicable

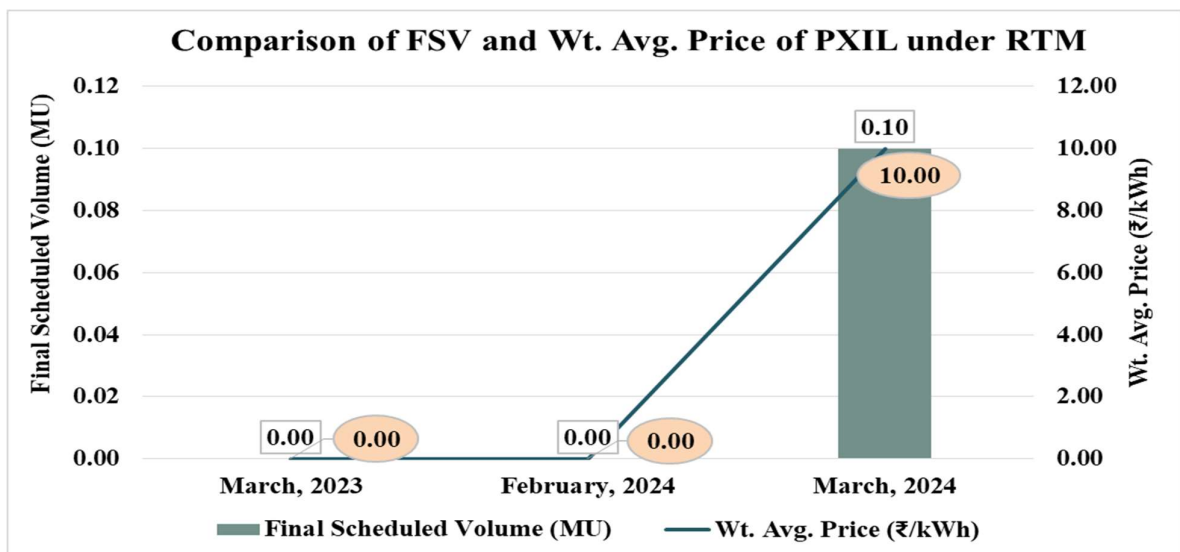
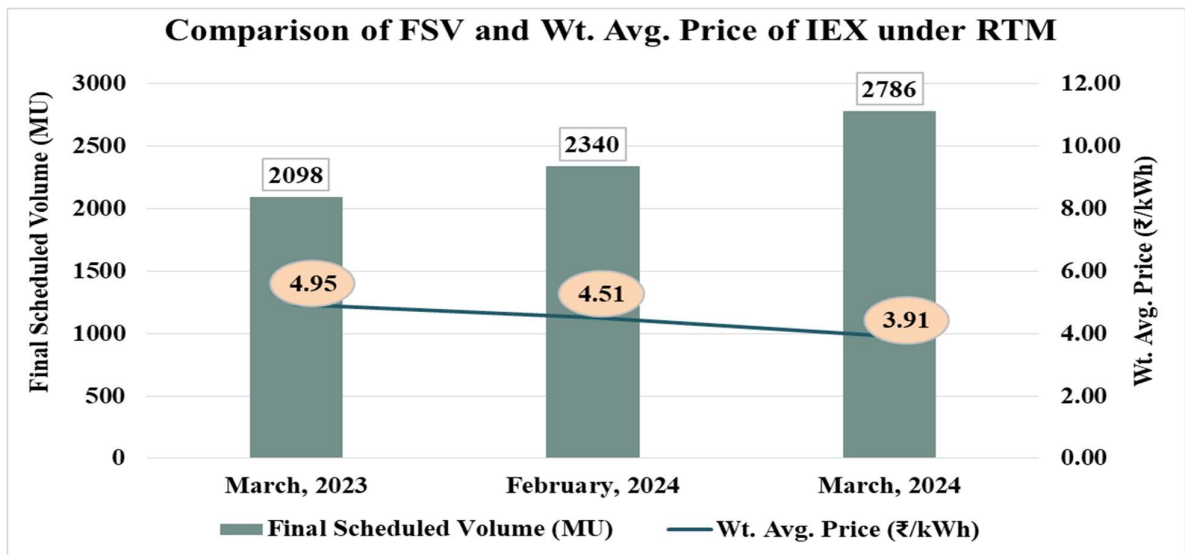
Table: 1B

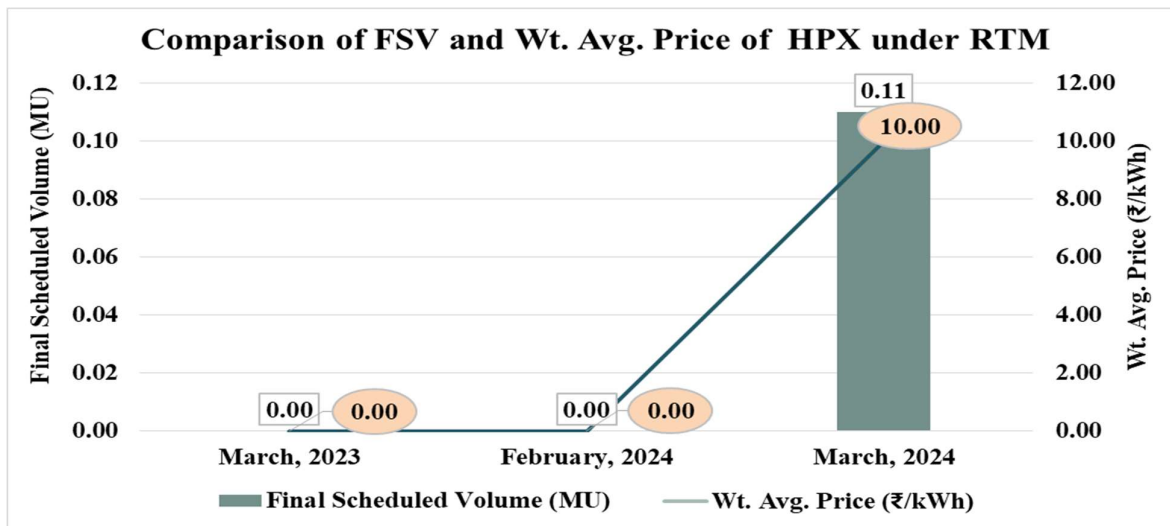
2. Real Time Market (RTM)

The volume of electricity transacted under RTM was 2785.83 at a Wt. Avg. Price of ₹ 3.91/kWh in March, 2024.



- 2.1. The total volume of electricity transacted on the power exchanges under Real Time Market in March, 2024 was **2,785.83 MU**, out of which **2,785.62 MU (99.99 %)** was transacted in IEX, **0.10 MU (0.004 %)** was transacted in PXIL and **0.11 MU (0.004 %)** 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 March, 2024 vs February, 2024 and March, 2023 is Shown below:





2.3. The RTM volume for March, 2024 in IEX is inclusive of Cross Border Transactions of Electricity with Nepal and Bhutan (details given at **Annexure XIII**), which was **27.78 MU** (i.e. 6.42 MU bought by Nepal, 5.90 MU sold by Nepal, 15.43 MU bought by Bhutan).

2.4. The Final Scheduled Volume (FSV), Daily Avg. Market Clearing Prices (MCP) and Area Clearing Prices (ACP) under Real Time Market during the month of March, 2024 as compared with February, 2024 and March, 2023 are shown in Table- 2A & 2B:

(i) Final Scheduled Volume:

Exchange	Period	Final Scheduled Volume (MU)			
		Total	Minimum (on a day)	Maximum (on a day)	Average (per day)
IEX	March, 2024*	2785.62	75.77	116.42	89.86
	February, 2024*	2339.92	64.59	112.29	80.69
	% Change (Month over Month)	19.05	17.31	3.68	11.36
	March, 2023	2097.72	48.13	98.49	67.67
	% Change (Year over Year)	32.79	57.43	18.20	32.79
PXIL	March, 2024	0.10	0.10	0.10	0.10
	February, 2024	-	-	-	-
	% Change (Month over Month)	NA	NA	NA	NA
	March, 2023	-	-	-	-
	% Change (Year over Year)	NA	NA	NA	NA
HPX	March, 2024	0.11	0.11	0.11	0.11
	February, 2024	-	-	-	-
	% Change (Month over Month)	NA	NA	NA	NA
	March, 2023	-	-	-	-
	% Change (Year over Year)	NA	NA	NA	NA

-: No transaction took place

NA: Not Applicable

*** RTM Volume in IEX is inclusive of Cross Border Transactions of Electricity with Nepal and Bhutan**

Table-2A

(ii) Daily Wt. Avg. Market Clearing Price (MCP) and Area Clearing Price (ACP):

Exchange	Period	Prices (₹/kWh)				
		Daily MCP (₹/kWh)		ACP (₹/kWh)		Monthly Wt. Avg. MCP (₹/kWh)
		Minimum	Maximum	Minimum	Maximum	Average
IEX	March, 2024	2.22	5.88	0.90	10.00	3.91
	February, 2024	2.57	6.15	0.99	10.00	4.51
	% Change (Month over Month)	-13.62	-4.39	-9.09	0.00	-13.30
	March, 2023	2.63	7.96	1.25	12.00	4.95
	% Change (Year over Year)	-15.59	-26.13	-28.00	-16.67	-21.01
PXIL	March, 2024	10.00	10.00	10.00	10.00	10.00
	February, 2024	-	-	-	-	-
	% Change (Month over Month)	NA	NA	NA	NA	NA
	March, 2023	-	-	-	-	-
	% Change (Year over Year)	NA	NA	NA	NA	NA
HPX	March, 2024	10.00	10.00	10.00	10.00	10.00
	February, 2024	-	-	-	-	-
	% Change (Month over Month)	NA	NA	NA	NA	NA
	March, 2023	-	-	-	-	-
	% Change (Year over Year)	NA	NA	NA	NA	NA

-: No transaction took place

NA: Not Applicable

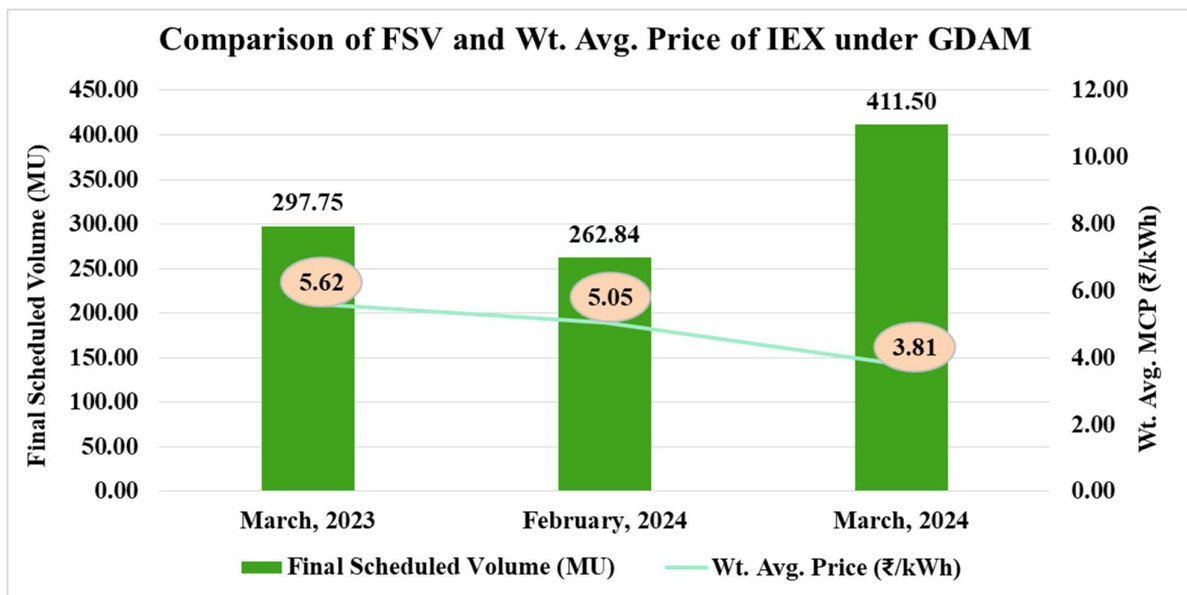
Table-2B

3. Green Day Ahead Market (GDAM)

The volume of electricity transacted under GDAM was **411.50 MU** at a Wt. Avg. Price of ₹ **3.81/kWh** in March, 2024.



- 3.1. The volume of electricity transacted under GDAM in March, 2024 was **411.50 MU** (**223.73 MU** in Solar, **173.91 MU** in Non-Solar and **13.86 MU** in Hydro) in IEX at a Wt. Avg. MCP of ₹ **3.81/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, PXIL and HPX under GDAM for March, 2024 vs February, 2024 and March, 2023 is Shown below:



- 3.3. There was no real time curtailment in the power exchanges under Green Day Ahead Market during the month of March, 2024, February, 2024 and March, 2023.
- 3.4. The **top 10 sellers** on the power exchanges under Green Day Ahead Market (GDAM) in March, 2024 were **ADANI RENEWABLE ENERGY HOLDING FOUR LIMITED, Andhra Pradesh, ADANI WIND ENERGY KUTCHH FOUR Ltd. Nakhatrana, Madhya Pradesh, Himachal Pradesh, Continuum Power Trading (TN) Private Limited, TPSL 200MW TPTCL Banderwala, ADANI SOLAR ENERGY RJ TWO PRIVATE LIMITED (infirm), Amplus Ages Private Limited and Transition Energy Services Private Limited**, which constituted **64.78 %** of the market volume.
- 3.5. The **top 10 buyers** on the power exchanges under Green Day Ahead Market (GDAM) in March, 2024 were **ArcelorMittal Nippon steel (ESIL), Tamil Nadu, Maharashtra, Punjab, DVC, Delhi, Uttar Pradesh, Gujarat, Railways and Rajasthan**, which constituted **83.69 %** of the market volume.

3.6. The Final Scheduled Volume (FSV), Daily Avg. Market Clearing Prices (MCP), Area Clearing Prices (ACP), Real Time Curtailment and details of Transmission Congestion under three segments (i.e. Solar, Non Solar and Hydro) under Green Day Ahead Market during the month of March, 2024 and its comparison with February, 2024 and March, 2023 are shown in Table- 3A & 3B:

(i) Final Scheduled Volume :

Exchange	Segment	Period	Final Scheduled Volume (MU)			
			Total	Minimum (on a day)	Maximum (on a day)	Average (per day)
IEX	Solar	March, 2024	223.73	2.97	10.88	7.22
		February, 2024	109.64	1.96	7.91	3.78
		% Change (Month over Month)	104.06	51.53	37.55	91.01
		March, 2023	80.42	0.49	8.05	2.59
		%Change (Year over Year)	178.20	506.12	35.16	178.76
	Non Solar	March, 2024	173.91	3.57	7.90	5.61
		February, 2024	143.67	3.20	6.71	4.95
		% Change (Month over Month)	21.05	11.56	17.73	13.33
		March, 2023	216.10	3.79	11.43	6.97
		%Change (Year over Year)	-19.52	-5.80	-30.88	-19.51
	Hydro	March, 2024	13.86	0.28	0.71	0.45
		February, 2024	9.53	0.23	0.62	0.33
		% Change (Month over Month)	45.44	21.74	14.52	36.36
		March, 2023	1.23	0.001	0.22	0.07
		%Change (Year over Year)	1026.83	34900.00	222.73	542.86
PXIL	Solar, Non Solar and Hydro	March, 2024	-	-	-	-
		February, 2024	-	-	-	-
		% Change (Month over Month)	NA	NA	NA	NA
		March, 2023	-	-	-	-
		%Change (Year over Year)	NA	NA	NA	NA
HPX	Solar, Non Solar and Hydro	March, 2024	-	-	-	-
		February, 2024	-	-	-	-
		% Change (Month over Month)	NA	NA	NA	NA

-: No transaction took place

NA: Not Applicable

Table-3A

(ii) Daily Wt. Avg. Market Clearing Price (MCP) and Area Clearing Price (ACP):

Exchange	Segment	Period	Prices (₹/kWh)				
			Daily MCP (₹/kWh)		ACP (₹/kWh)		Monthly Wt. Avg. MCP (₹/kWh)
			Minimum	Maximum	Minimum	Maximum	Average
IEX	Solar, Non Solar and Hydro	March, 2024	2.84	4.87	1.00	10.00	3.81
		February, 2024	4.07	6.55	2.50	10.00	5.05
		% Change (Month over Month)	-30.22	-25.65	-60.00	0.00	-24.55
		March, 2023	4.37	7.47	3.34	12.00	5.62
		% Change (Year over Year)	-35.01	-34.81	-70.06	-16.67	-32.21
PXIL	Solar, Non Solar and Hydro	March, 2024	-	-	-	-	-
		February, 2024	-	-	-	-	-
		% Change (Month over Month)	NA	NA	NA	NA	NA
		March, 2023	-	-	-	-	-
		% Change (Year over Year)	NA	NA	NA	NA	NA
HPX	Solar, Non Solar and Hydro	March, 2024	-	-	-	-	-
		February, 2024	-	-	-	-	-
		% Change (Month over Month)	NA	NA	NA	NA	NA

-: No transaction took place

NA: Not Applicable

Table-3B

4. Term Ahead Market (TAM)

The volume of electricity transacted under TAM was 2,520.56 MU at a Wt. Avg. Price of ₹ 8.22/kWh in March, 2024



4.1. The total volume of electricity transacted on the power exchanges on delivery date basis under Term Ahead Market in March, 2024, February, 2024 and March, 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)
March, 2024	2,520.56	759.22 (30.12 %)	870.60 (34.54 %)	890.74 (35.34 %)
February, 2024	2,646.48	1369.55 (51.75 %)	661.85 (25.01 %)	615.08 (23.24 %)
March, 2023	591.77	397.54 (67.18 %)	-	194.23 (32.82 %)

4.2. With respect to the total energy supplied during the month of March, 2024 in the country, the volume of electricity traded on the power exchanges under TAM on delivery date basis represents 1.82 % of the total energy supplied. The same was 2.07 % in February, 2024 and 0.46 % in March, 2023.

4.3. In March, 2024, there was transmission congestion of 13.30 MU in PXIL under TAM.

4.4. In March, 2024, there was real time curtailment of 75.86 MU under TAM, Out of which 16.77 MU was under Anyday Single Sided contract in IEX. Whereas, in PXIL, there was real time curtailment of 9.19 MU under Daily-Anyday contract, Monthly contract and 33.17 MU and 0.69 MU under Anyday Single Sided contract. Whereas, in HPX, there was real time curtailment of 1.62 MU under Daily-Anyday contract, 14.14 MU was under Monthly contract and 0.28 MU under Anyday Single Sided contract under TAM.

4.5. 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 March, 2024 with February, 2024 and March, 2023 are shown in Table – 4A & 4B:

(i) Final Scheduled Volume (MU), March, 2024 vis- a- vis February, 2024 and March, 2023

Exchange	Period	Final Scheduled Volume (MU)				
		Daily or Any Day	Weekly	Monthly	Anyday Single Side	Total
IEX	March, 2024	176.45	-	98.21	484.56	759.22
	February, 2024	15.45	-	550.87	803.23	1369.55
	%Change (Month over Month)	1042.07	NA	-82.17	-39.67	-44.56
	March, 2023	15.50	36.74	297.60	47.70	397.54
	%Change (Year over Year)	1038.39	NA	-67.00	915.85	90.98

Exchange	Period	Final Scheduled Volume (MU)				
		Daily or Any Day	Weekly	Monthly	Anyday Single Side	Total
PXIL	March, 2024	147.86	-	431.83	290.91	870.60
	February, 2024	227.89	-	110.22	323.74	661.85
	%Change (Month over Month)	-35.12	NA	291.79	-10.14	31.54
	March, 2023	-	-	-	-	-
	%Change (Year over Year)	NA	NA	NA	NA	NA
HPX	March, 2024	135.78	-	468.30	286.66	890.74
	February, 2024	75.17	-	275.46	264.45	615.08
	%Change (Month over Month)	80.63	NA	70.01	8.40	44.82
	March, 2023	4.88	-	148.80	40.55	194.23
	%Change (Year over Year)	2682.38	NA	214.72	606.93	358.60

- : No transaction took place

NA: Not Applicable

Table: 4A

(ii) Wt. Avg. MCP, March, 2024 vis- a- vis February, 2024 and March, 2023

Exchange	Period	Wt. Average MCP (₹/kWh)			
		Daily or Any Day	Weekly	Monthly	Anyday Single Side
IEX	March, 2024	7.66	-	8.00	8.09
	February, 2024	9.89	-	6.48	7.38
	%Change (Month over Month)	-22.55	NA	23.46	9.62
	March, 2023	12.00	11.99	7.98	11.80
	%Change Year over Year)	-36.17	NA	0.25	-31.44
PXIL	March, 2024	8.28	-	8.34	9.00
	February, 2024	9.23	-	7.00	7.95
	%Change (Month over Month)	-10.29	NA	19.14	13.21
	March, 2023	-	-	-	-
	%Change (Year over Year)	NA	NA	NA	NA
HPX	March, 2024	7.81	-	7.96	8.47
	February, 2024	8.97	-	6.48	9.04
	%Change (Month over Month)	-12.93	NA	22.84	-6.31
	March, 2023	12.00	-	7.98	10.97
	%Change Year over Year)	-34.92	NA	-0.25	-22.79

-: No transaction took place

NA: Not Applicable

Table: 4B

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

The volume of electricity transacted under DAC & ID was **381.49 MU** at a Wt. Avg. Price of ₹ 5.94/kWh in March, 2024.



- 5.1.** The volume of electricity transacted on IEX, PXIL and HPX under DAC & ID on delivery date basis during March, 2024 were **47.23 MU, 175.65 MU and 158.61 MU**, respectively.
- 5.2.** In March, 2024, there was no transmission congestion in IEX under DAC & ID.
- 5.3.** In March, 2024, there was real time curtailment of **1.51 MU** under Day Ahead Contingency contract in IEX and HPX under DAC & ID.
- 5.4.** The total volume of electricity transacted under DAC & ID under Day Ahead Contingency & Intra Day contracts during March, 2024 and its comparison with February, 2024 and March, 2023 on delivery date basis are shown in Tables- 5A & 5B:

(i) Final Scheduled Volume (MU), March, 2024 vis- a- vis February, 2024 and March, 2023

Exchange	Period	Final Scheduled Volume (MU)		
		Day Ahead Contingency	Intra Day	Total
IEX	March, 2024	46.99	0.24	47.23
	February, 2024	116.84	1.00	117.84
	%Change (Month over Month)	-59.78	-76.00	-59.92
	March, 2023	689.29	0.11	689.40
	%Change (Year over Year)	-93.18	118.18	-93.15
PXIL	March, 2024	171.44	4.21	175.65
	February, 2024	254.97	4.01	258.98
	%Change (Month over Month)	-32.76	4.99	-32.18
	March, 2023	514.37	0.42	514.79
	%Change (Year over Year)	-66.67	902.38	-65.88
HPX	March, 2024	156.46	2.15	158.61
	February, 2024	215.66	1.30	216.96
	%Change (Month over Month)	-27.45	65.38	-26.89
	March, 2023	467.46	-	467.46
	%Change (Year over Year)	-66.53	NA	-66.07

- : No transaction took place

NA: Not Applicable

Table: 5A

(ii) Wt. Avg. MCP, March, 2024 vis- a- vis February, 2024 and March, 2023

Exchange	Period	Wt. Average MCP (₹/kWh)	
		Day Ahead Contingency	Intra Day
IEX	March, 2024	4.52	8.50
	February, 2024	6.45	8.60
	%Change (Month over Month)	-29.92	-1.16
	March, 2023	5.72	11.28
	%Change Year over Year)	-20.98	-24.65
PXIL	March, 2024	4.85	7.65
	February, 2024	7.19	8.78
	%Change (Month over Month)	-32.55	-12.87
	March, 2023	5.53	6.72
	%Change (Year over Year)	-12.30	13.84
HPX	March, 2024	7.47	8.60
	February, 2024	8.93	8.93
	%Change (Month over Month)	-16.35	-3.70
	March, 2023	5.57	-
	%Change Year over Year)	34.11	NA

- : No transaction took place

NA: Not Applicable

Table: 5B

6. Green Term Ahead Market (GTAM)

The volume of electricity transacted under GTAM was **16.19 MU** at a Wt. Avg. Price of ₹ **5.28/kWh** in March, 2024.



The total volume of electricity transacted in the IEX under GTAM on delivery date basis during March, 2024 was **16.19 MU** in Solar and Non-Solar only. Whereas, no transactions took place in PXIL & HPX under GTAM.

The total volume of electricity transacted under GTAM in Daily/ Anyday, Weekly, Monthly and Anyday Single Side contracts during March, 2024 and its comparison with February, 2024 and March, 2023 on delivery date basis are shown in tables 6A to 6F.

6.1. Solar Energy Segment under GTAM

The Final Scheduled Volume and the Price of electricity transacted under GTAM (Solar) in Power Exchanges during March, 2024 and its comparison with February, 2024 and March, 2023 are shown in Table- 6A & 6B:

(i) Final Scheduled Volume:

Exchange	Solar Energy Contract	Period	Final Scheduled Volume (MU)			
			Total	Minimum (on a day)	Maximum (on a day)	Average (per day)
IEX	Daily/Anyday, Weekly, Monthly	March, 2024	-	-	-	-
		February, 2024	-	-	-	-
		%Change (Month over Month)	NA	NA	NA	NA
		March, 2023	-	-	-	-
		%Change (Year over Year)	NA	NA	NA	NA
	Anyday Single Side	March, 2024	10.98	0.39	0.39	0.39
		February, 2024	3.02	0.43	0.43	0.43
		%Change (Month over Month)	263.58	-9.30	-9.30	-9.30
		March, 2023	-	-	-	-
		%Change (Year over Year)	NA	NA	NA	NA

Exchange	Solar Energy Contract	Period	Final Scheduled Volume (MU)			
			Total	Minimum (on a day)	Maximum (on a day)	Average (per day)
PXIL, HPX	Daily/Anyday, Weekly, Monthly, Anyday Single Side	March, 2024	-	-	-	-
		February, 2024	-	-	-	-
		%Change (Month over Month)	NA	NA	NA	NA
		March, 2023	-	-	-	-
		%Change (Year over Year)	NA	NA	NA	NA

-: No transaction took place

NA: Not Applicable

Table-6A

(ii) Daily Wt. Avg. Market Clearing Price (MCP):

Exchange	Solar Energy Contract	Period	Prices(₹/kWh)		
			Minimum	Maximum	Average
IEX	Daily/Anyday, Weekly, Monthly	March, 2024	-	-	-
		February, 2024	-	-	-
		%Change (Month over Month)	NA	NA	NA
		March, 2023	-	-	-
		%Change (Year over Year)	NA	NA	NA
	Anyday Single Side	March, 2024	4.70	4.70	4.70
		February, 2024	4.70	4.70	4.70
		%Change (Month over Month)	0.00	0.00	0.00
		March, 2023	-	-	-
		%Change (Year over Year)	NA	NA	NA
PXIL, HPX	Daily/Anyday, Weekly, Monthly, Anyday Single Side	March, 2024	-	-	-
		February, 2024	-	-	-
		%Change (Month over Month)	NA	NA	NA
		March, 2023	-	-	-
		%Change (Year over Year)	NA	NA	NA

-: No transaction took place

NA: Not Applicable

Table-6B

6.1.1. In March, 2024, there was no transmission congestion in IEX. Whereas, no transaction took place in PXIL & HPX under GTAM (Solar).

6.1.2. In March, 2024, there was no real time curtailment in IEX. Whereas, no transaction took place in PXIL & HPX under GTAM (Solar).

6.2. Non-Solar Energy Segment under GTAM

The Final Scheduled Volume and the Price of electricity transacted under GTAM (Non-Solar) in Power Exchanges during March, 2024 and its comparison with February, 2024 and March, 2023 are shown in Table- 6C & 6D:

(i) Final Scheduled Volume:

Exchange	Non- Solar Energy Contract	Period	Final Scheduled Volume (MU)			
			Total	Minimum (on a day)	Maximum (on a day)	Average (per day)
IEX	Daily/Anyday	March, 2024	5.21	0.17	0.17	0.17
		February, 2024	14.72	0.46	0.52	0.51
		%Change (Month over Month)	-64.61	-63.04	-67.31	-66.67
		March, 2023	1.49	0.05	0.05	0.05
		%Change (Year over Year)	249.66	240.00	240.00	240.00
	Weekly, Monthly	March, 2024	-	-	-	-
		February, 2024	-	-	-	-
		%Change (Month over Month)	NA	NA	NA	NA
		March, 2023	-	-	-	-
		%Change (Year over Year)	NA	NA	NA	NA
	Anyday Single Side	March, 2024	-	-	-	-
		February, 2024	14.27	0.49	0.49	0.49
		%Change (Month over Month)	NA	NA	NA	NA
		March, 2023	-	-	-	-
		%Change (Year over Year)	NA	NA	NA	NA
PXIL	Daily/Anyday, Weekly, Monthly, Anyday Single Side	March, 2024	-	-	-	-
		February, 2024	-	-	-	-
		%Change (Month over Month)	NA	NA	NA	NA
		March, 2023	-	-	-	-
		%Change (Year over Year)	NA	NA	NA	NA
HPX	Daily/Anyday, Weekly, Monthly	March, 2024	-	-	-	-
		February, 2024	-	-	-	-
		%Change (Month over Month)	NA	NA	NA	NA
	Anyday Single Side	March, 2024	-	-	-	-
		February, 2024	25.75	0.89	0.89	0.89
		%Change (Month over Month)	NA	NA	NA	NA

-: No transaction took place

NA: Not Applicable

Table - 6C

(ii) Daily Wt. Avg. Market Clearing Price (MCP):

Exchange	Non- Solar Energy Contract	Period	Prices(₹/kWh)		
			Minimum	Maximum	Average
IEX	Daily/Anyday	March, 2024	6.50	6.50	6.50
		February, 2024	6.47	6.56	6.55
		%Change (Month over Month)	0.46	-0.91	-0.76
		March, 2023	6.80	6.80	6.80
		%Change (Year over Year)	-4.41	-4.41	-4.41
	Weekly, Monthly	March, 2024	-	-	-
		February, 2024	-	-	-
		%Change (Month over Month)	NA	NA	NA
		March, 2023	-	-	-
		%Change (Year over Year)	NA	NA	NA
	Anyday Single Side	March, 2024	-	-	-
		February, 2024	6.69	6.69	6.69
		%Change (Month over Month)	NA	NA	NA
		March, 2023	-	-	-
		%Change (Year over Year)	NA	NA	NA
PXIL	Daily/Anyday, Weekly, Monthly, Anyday Single Side	March, 2024	-	-	-
		February, 2024	-	-	-
		%Change (Month over Month)	NA	NA	NA
		March, 2023	-	-	-
		%Change (Year over Year)	NA	NA	NA
HPX	Daily/Anyday, Weekly, Monthly	March, 2024	-	-	-
		February, 2024	-	-	-
		%Change (Month over Month)	NA	NA	NA
	Anyday Single Side	March, 2024	-	-	-
		February, 2024	7.11	7.11	7.11
		%Change (Month over Month)	NA	NA	NA

-: No transaction took place

NA: Not Applicable

Table - 6D

6.2.1. In March, 2024, there was no transmission congestion in IEX. Whereas, no transaction took place in PXIL & HPX under GTAM (Non Solar).

6.2.2. In March, 2024, there was no real time curtailment in IEX. Whereas, no transaction took place in PXIL & HPX under GTAM (Non Solar).

6.3 Hydro Energy Segment under GTAM

The Final Scheduled Volume and the Price of electricity transacted under GTAM (Hydro) in Power Exchanges during March, 2024 and its comparison with February, 2024 and March, 2023 are shown in Table- 6E & 6F:

(i) Final Scheduled Volume:

Exchange	Hydro Energy Contract	Period	Final Scheduled Volume (MU)			
			Total	Minimum (on a day)	Maximum (on a day)	Average (per day)
IEX, PXIL, HPX	Daily/Anyday, Weekly, Monthly, Anyday Single Side	March, 2024	-	-	-	-
		February, 2024	-	-	-	-
		%Change (Month over Month)	NA	NA	NA	NA
		March, 2023	-	-	-	-
		%Change (Year over Year)	NA	NA	NA	NA

-: No transaction took place

NA: Not Applicable

Table: 6E

(ii) Daily Wt. Avg. Market Clearing Price (MCP):

Exchange	Hydro Energy Contract	Period	Prices(₹/kWh)		
			Minimum	Maximum	Average
IEX, PXIL, HPX	Daily/Anyday, Weekly, Monthly, Anyday Single Side	March, 2024	-	-	-
		February, 2024	-	-	-
		%Change (Month over Month)	NA	NA	NA
		March, 2023	-	-	-
		%Change (Year over Year)	NA	NA	NA

-: No transaction took place

NA: Not Applicable

Table – 6F

6.3.1. In March, 2024, there was no transaction under GTAM (Hydro) in IEX, PXIL & HPX.

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

The volume of electricity transacted under G-DAC & ID was 102.32 MU at a Wt. Avg. Price of ₹ 3.89/kWh in March, 2024.



The total volume of electricity transacted in the PXIL & HPX under G-DAC & ID on delivery date basis during March, 2024 was **102.32 MU** (96.46 MU in Solar and 5.86 MU in Non-Solar), respectively. There was no transaction under G-DAC & ID in IEX in March, 2024.

The total volume of electricity transacted under G-DAC & ID in Day Ahead Contingency and Intra Day contracts during March, 2024 and its comparison with February, 2024 and March, 2023 on delivery date basis are shown in tables 7A to 7F.

7.1. Solar Energy Segment under G-DAC & ID

The Final Scheduled Volume and the Price of electricity transacted under G-DAC & ID (Solar) in Power Exchanges during March, 2024 and its comparison with February, 2024 and March, 2023 are shown in Table- 7A & 7B:

(i) Final Scheduled Volume:

Exchange	Solar Energy Contract	Period	Final Scheduled Volume (MU)			
			Total	Minimum (on a day)	Maximum (on a day)	Average (per day)
IEX, PXIL	Day Ahead Contingency & Intra Day	March, 2024	-	-	-	-
		February, 2024	-	-	-	-
		%Change (Month over Month)	NA	NA	NA	NA
		March, 2023	-	-	-	-
HPX	Day Ahead Contingency	March, 2024	96.46	1.80	3.75	3.11
		February, 2024	47.36	0.03	3.00	1.75
		%Change (Month over Month)	103.67	5900.00	25.00	77.71
		March, 2023	-	-	-	-
		%Change (Year over Year)	NA	NA	NA	NA
	Intra Day	March, 2024	-	-	-	-
		February, 2024	-	-	-	-
		%Change (Month over Month)	NA	NA	NA	NA
		March, 2023	-	-	-	-
		%Change (Year over Year)	NA	NA	NA	NA

-: No transaction took place

NA: Not Applicable

Table-7A

(ii) Daily Wt. Avg. Market Clearing Price (MCP):

Exchange	Solar Energy Contract	Period	Prices(₹/kWh)		
			Minimum	Maximum	Average
IEX, PXIL	Day Ahead Contingency & Intra Day	March, 2024	-	-	-
		February, 2024	-	-	-
		%Change (Month over Month)	NA	NA	NA
		March, 2023	-	-	-
		%Change (Year over Year)	NA	NA	NA
HPX	Day Ahead Contingency	March, 2024	3.10	5.05	3.84
		February, 2024	3.85	6.92	4.96
		%Change (Month over Month)	-19.48	-27.02	-22.58
		March, 2023	-	-	-
		%Change (Year over Year)	NA	NA	NA
	Intra Day	March, 2024	-	-	-
		February, 2024	-	-	-
		%Change (Month over Month)	NA	NA	NA
		March, 2023	-	-	-
		%Change (Year over Year)	NA	NA	NA

-: No transaction took place

NA: Not Applicable

Table-7B

7.1.1. In March, 2024, there was no transmission congestion under G-DAC & ID (Solar) in HPX. There was no transaction in IEX & PXIL under G-DAC & ID (Solar).

7.1.2. In March, 2024, there was no real time curtailment under G-DAC & ID (Solar) in HPX. There was no transaction in IEX & PXIL under G-DAC & ID (Solar).

7.2. Non-Solar Energy Segment under G-DAC & ID

The Final Scheduled Volume and the Price of electricity transacted under G-DAC & ID (Non-Solar) in Power Exchanges during March, 2024 and its comparison with February, 2024 and March, 2023 are shown in Table- 7C & 7D:

(i) Final Scheduled Volume:

Exchange	Non- Solar Energy Contract	Period	Final Scheduled Volume (MU)			
			Total	Minimum (on a day)	Maximum (on a day)	Average (per day)
IEX	Day Ahead Contingency	March, 2024	-	-	-	-
		February, 2024	-	-	-	-
		%Change (Month over Month)	NA	NA	NA	NA
		March, 2023	92.56	0.64	4.55	2.99

Exchange	Non- Solar Energy Contract	Period	Final Scheduled Volume (MU)					
			Total	Minimum (on a day)	Maximum (on a day)	Average (per day)		
		%Change (Year over Year)	NA	NA	NA	NA		
		March, 2024	-	-	-	-		
		February, 2024	-	-	-	-		
		%Change (Month over Month)	NA	NA	NA	NA		
		March, 2023	-	-	-	-		
		%Change (Year over Year)	NA	NA	NA	NA		
		PXIL	Day Ahead Contingency	March, 2024	5.07	0.04	0.48	0.19
				February, 2024	2.23	0.03	0.15	0.09
				%Change (Month over Month)	127.35	33.33	220.00	111.11
				March, 2023	30.45	0.20	2.57	1.01
%Change (Year over Year)	-83.35			-80.00	-81.32	-81.19		
Intra Day	March, 2024		0.11	0.11	0.11	0.11		
	February, 2024		-	-	-	-		
	%Change (Month over Month)		NA	NA	NA	NA		
	March, 2023		0.35	0.35	0.35	0.35		
	%Change (Year over Year)		-68.57	-68.57	-68.57	-68.57		
HPX	Day Ahead Contingency	March, 2024	0.68	0.02	0.08	0.03		
		February, 2024	1.18	0.01	0.10	0.04		
		%Change (Month over Month)	-42.37	100.00	-20.00	-25.00		
		March, 2023	1.13	0.10	0.43	0.28		
		%Change (Year over Year)	-39.82	-80.00	-81.40	-89.29		
	Intra Day	March, 2024	-	-	-	-		
		February, 2024	-	-	-	-		
		%Change (Month over Month)	NA	NA	NA	NA		

-: No transaction took place

NA: Not Applicable

Table - 7C

(ii) Daily Wt. Avg. Market Clearing Price (MCP):

Exchange	Non- Solar Energy Contract	Period	Prices(₹/kWh)			
			Minimum	Maximum	Average	
IEX	Day Ahead Contingency	March, 2024	-	-	-	
		February, 2024	-	-	-	
		%Change (Month over Month)	NA	NA	NA	
		March, 2023	4.32	9.44	5.64	
		%Change (Year over Year)	NA	NA	NA	
		Intra Day	March, 2024	-	-	-
			February, 2024	-	-	-

Exchange	Non- Solar Energy Contract	Period	Prices(₹/kWh)		
			Minimum	Maximum	Average
		%Change (Month over Month)	NA	NA	NA
		March, 2023	-	-	-
		%Change (Year over Year)	NA	NA	NA
PXIL	Day Ahead Contingency	March, 2024	3.34	5.92	4.65
		February, 2024	4.54	7.17	6.12
		%Change (Month over Month)	-26.43	-17.43	-24.02
		March, 2023	3.72	9.96	5.64
		%Change (Year over Year)	-10.22	-40.56	-17.55
	Intra Day	March, 2024	5.96	5.96	5.96
		February, 2024	-	-	-
		%Change (Month over Month)	NA	NA	NA
		March, 2023	4.83	4.83	4.83
		%Change (Year over Year)	23.40	23.40	23.40
HPX	Day Ahead Contingency	March, 2024	3.41	5.28	4.35
		February, 2024	4.20	9.37	6.41
		%Change (Month over Month)	-18.81	-43.65	-32.14
		March, 2023	5.94	8.45	7.01
		%Change (Year over Year)	-42.59	-37.51	-37.95
	Intra Day	March, 2024	-	-	-
		February, 2024	-	-	-
		%Change (Month over Month)	NA	NA	NA

-: No transaction took place

NA: Not Applicable

Table - 7D

7.2.1. In March, 2024, there was no transmission congestion in PXIL & HPX under G-DAC & ID (Non Solar). There was no transaction in IEX under G-DAC & ID (Non Solar).

7.2.2. In March, 2024, there was real time curtailment of **0.03 MU** in HPX and no real time curtailment in PXIL. There was no transaction in IEX under G-DAC & ID (Non Solar).

7.3. Hydro Energy Segment under G-DAC & ID

The Final Scheduled Volume and the Price of electricity transacted under G-DAC & ID (Hydro) in Power Exchanges during March, 2024 and its comparison with February, 2024 and March, 2023 are shown in Table- 7E & 7F:

(i) Final Scheduled Volume:

Exchange	Hydro Energy Contract	Period	Final Scheduled Volume (MU)			
			Total	Minimum (on a day)	Maximum (on a day)	Average (per day)
IEX	Day Ahead Contingency	March, 2024	-	-	-	-
		February, 2024	-	-	-	-
		%Change (Month over Month)	NA	NA	NA	NA
		March, 2023	2.87	0.02	0.23	0.18
		%Change (Year over Year)	NA	NA	NA	NA
	Intra Day	March, 2024	-	-	-	-
		February, 2024	-	-	-	-
		%Change (Month over Month)	NA	NA	NA	NA
		March, 2023	-	-	-	-
		%Change (Year over Year)	NA	NA	NA	NA
PXIL	Day Ahead Contingency	March, 2024	-	-	-	-
		February, 2024	-	-	-	-
		%Change (Month over Month)	NA	NA	NA	NA
		March, 2023	-	-	-	-
		%Change (Year over Year)	NA	NA	NA	NA
	Intra Day	March, 2024	0.11	0.11	0.11	0.11
		February, 2024	-	-	-	-
		%Change (Month over Month)	NA	NA	NA	NA
		March, 2023	-	-	-	-
		%Change (Year over Year)	NA	NA	NA	NA
HPX	Day Ahead Contingency	March, 2024	-	-	-	-
		February, 2024	-	-	-	-
		%Change (Month over Month)	NA	NA	NA	NA
	Intra Day	March, 2024	-	-	-	-
		February, 2024	-	-	-	-
		%Change (Month over Month)	NA	NA	NA	NA
		%Change (Year over Year)	NA	NA	NA	NA

-: No transaction took place

NA: Not Applicable

Table: 7E

(ii) Daily Wt. Avg. Market Clearing Price (MCP):

Exchange	Hydro Energy Contract	Period	Prices(₹/kWh)		
			Minimum	Maximum	Average
IEX	Day Ahead Contingency	March, 2024	-	-	-
		February, 2024	-	-	-
		%Change (Month over Month)	NA	NA	NA
		March, 2023	3.85	11.70	7.26
		%Change (Year over Year)	NA	NA	NA

Exchange	Hydro Energy Contract	Period	Prices(₹/kWh)		
			Minimum	Maximum	Average
	Intra Day	March, 2024	-	-	-
		February, 2024	-	-	-
		%Change (Month over Month)	NA	NA	NA
		March, 2023	-	-	-
		%Change (Year over Year)	NA	NA	NA
PXIL	Day Ahead Contingency	March, 2024	-	-	-
		February, 2024	-	-	-
		%Change (Month over Month)	NA	NA	NA
		March, 2023	-	-	-
		%Change (Year over Year)	NA	NA	NA
	Intra Day	March, 2024	-	-	-
		February, 2024	-	-	-
		%Change (Month over Month)	NA	NA	NA
		March, 2023	-	-	-
		%Change (Year over Year)	NA	NA	NA
HPX	Day Ahead Contingency	March, 2024	-	-	-
		February, 2024	-	-	-
		%Change (Month over Month)	NA	NA	NA
	Intra Day	March, 2024	-	-	-
		February, 2024	-	-	-
		%Change (Month over Month)	NA	NA	NA

-: No transaction took place

NA: Not Applicable

Table – 7F

7.3.1. In March, 2024, there was no transaction in IEX, PXIL and HPX under G-DAC & ID (Hydro).

7.3.2. In March, 2024, there was no transaction in IEX, PXIL and HPX under G-DAC & ID (Hydro).

8. Bilateral Transactions:

The total volume of electricity transacted through **bilateral transactions** in March, 2024 was **4,136.99 MU**. The total buy volume of electricity transacted in bilateral market through direct and trader transactions in March, 2024 were **738.86 MU** and **3,398.13 MU** respectively. The details of bilateral transactions of Electricity during March, 2024 are shown in table below:

March, 2024	Direct	Traders	Total Bilateral Transaction (MU)
Total	738.86	3,398.13	4,136.99
Minimum	0.07	1.50	-
Maximum	408.36	1,265.42	-

Table -8A

The region-wise maximum/ minimum volume of electricity transacted bilaterally during March, 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	195.74	13.12	88.70	375.43	0.84	183.21	453.58	2796.83	-	29.53
Minimum	0.07	13.12	0.20	2.15	0.84	2.07	14.52	464.88	-	1.50
Maximum	129.34	13.12	59.52	320.61	0.84	177.54	408.36	1265.42	-	18.60

Table-8B

8.1. The top 5 buyers on bilateral transaction through direct transactions in March, 2024 were **Karnataka, Jharkhand, Daman and Diu - Dadra and Nagar Haveli, Odisha and Telangana**, which constituted **92.07 %** of the market volume. Whereas **top 5 buyers** on bilateral transaction through traders in March, 2024 were **Tamil Nadu, Karnataka, Kerala, Maharashtra and Himachal Pradesh**, which constituted **96.96 %** of the market volume. [Annexure III]

8.2. The top 5 sellers on bilateral transaction through direct transactions in March, 2024 were **Andhra Pradesh, ADHUNIK POWER & NATURAL RESOURCES LIMITED, Uttar Pradesh, Gujarat and Jindal India Thermal Power Limited**, which constituted **88.05 %** of the market volume. Whereas **top 5 sellers** on bilateral transaction through traders in March, 2024 were **COASTAL ENERGEN PRIVATE LIMITED, IL&FS TAMIL NADU POWER COMPANY LIMITED, Jindal Power Limited, Stage-2, Jindal India Thermal Power Limited and Punjab**, which constituted **40.54 %** of the market volume. [Annexure III]

8.3. Deviation Volume -The volume of Deviation observed in March, 2024 in import and export were **2,206.47 MU** and **2,439.39 MU** respectively. The total volume of Deviation observed in March, 2024 can be taken as **2,322.93 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 March, 2024 is shown in **Figure 1**:

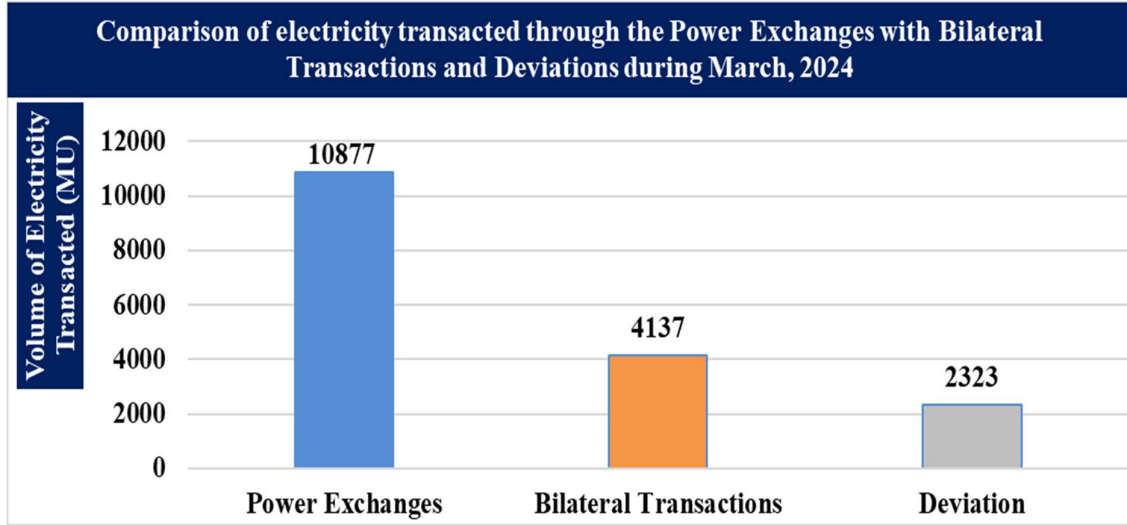
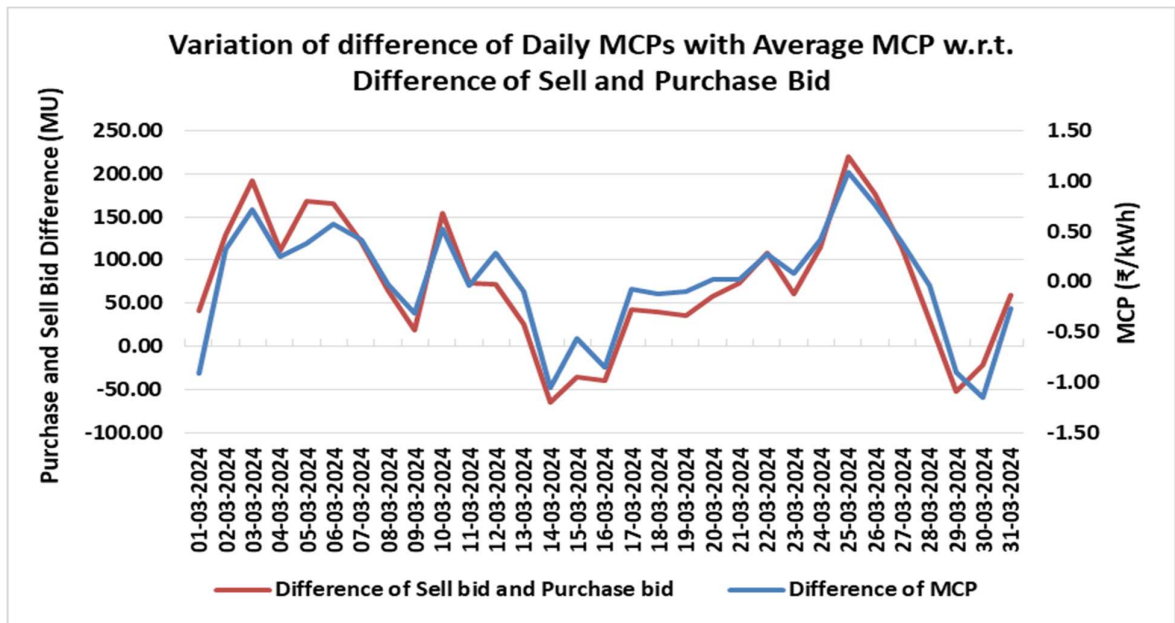


Figure -1

9. Analysis of movement of prices observed under DAM during March, 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 March, 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 Peak Demand. Further, the regression analysis revealed that the elasticity of the Daily Wt. Avg. MCP with respect to Peak Demand was **2.16** in March, 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 - 2**

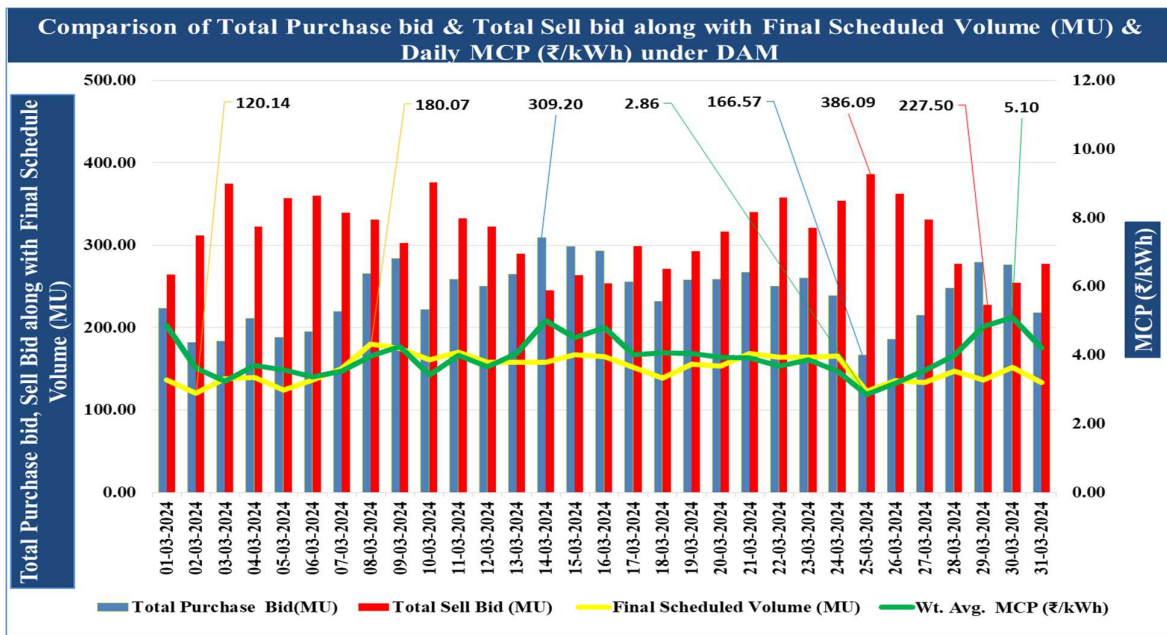


Figure – 2

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 March, 2024, it is observed that on first Sunday (03rd March, 2024), FSV showed increasing trend in comparison to first Saturday (02nd March, 2024), on fourth Monday (25th March, 2024), FSV showed decreasing trend in comparison to fourth Sunday (24th March, 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-3**. The same are also tabulated in **Annexure-I**

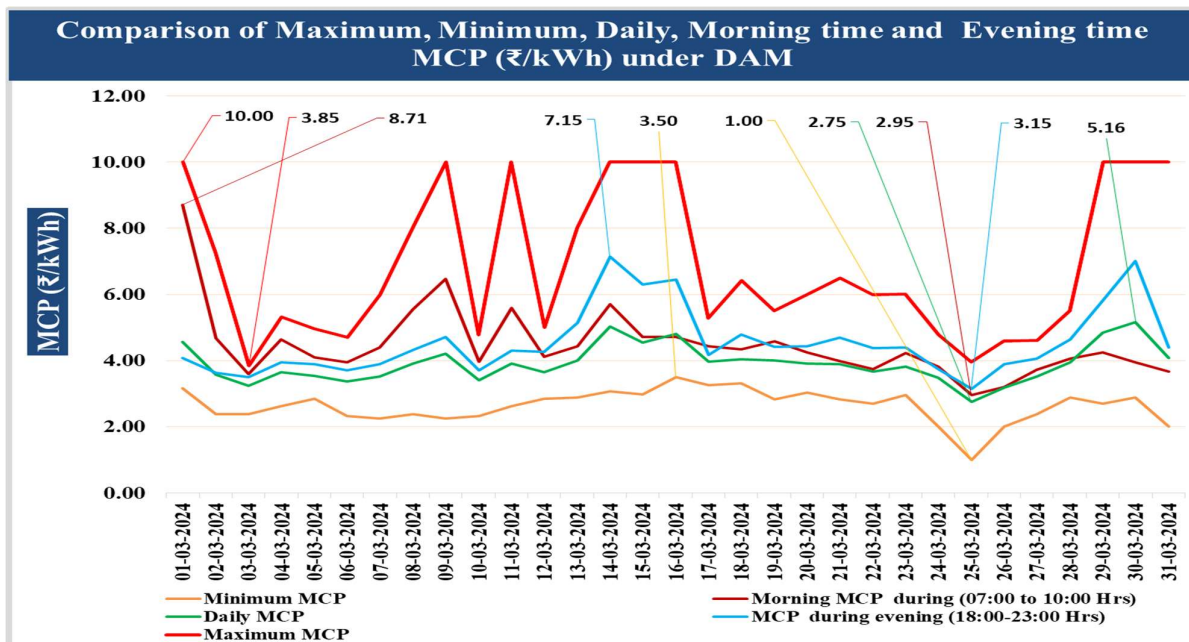


Figure-3

9.7. The Market Clearing Price duration curves for time block wise MCP for the month of March, 2024 is shown in **Figure 4**, whereas the time block wise MCP duration curve for the period 1st April, 2023 to 31st March, 2024 is shown in **Figure 5**.

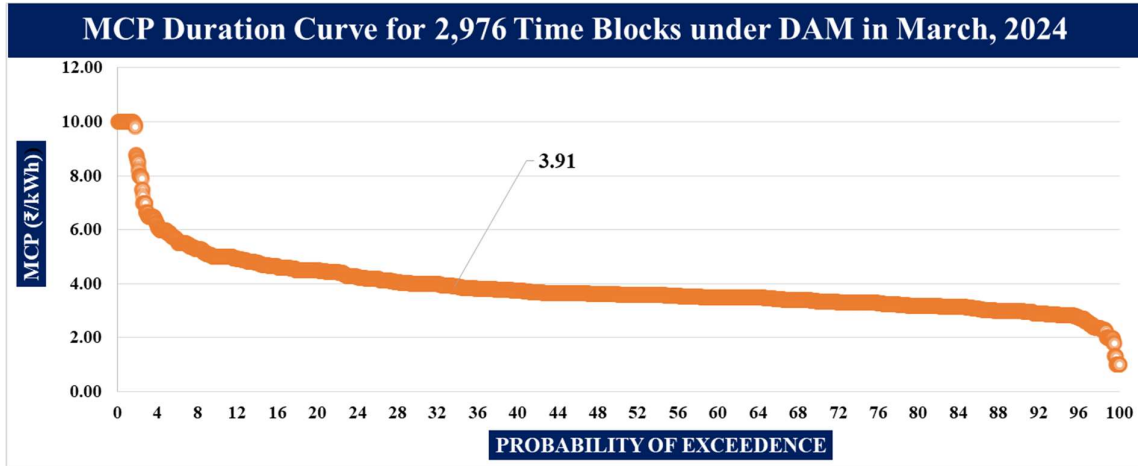


Figure – 4

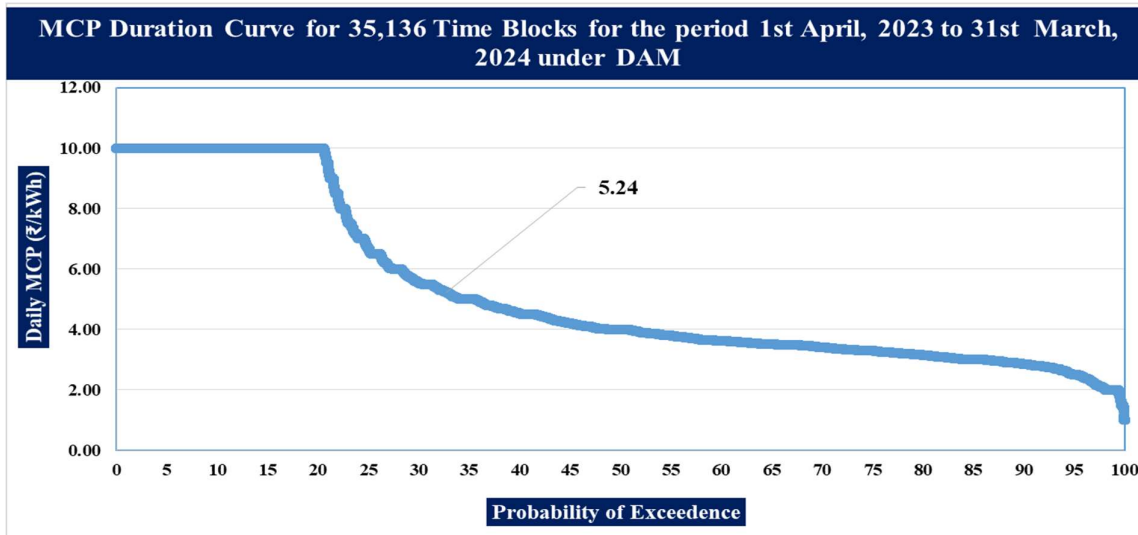


Figure-5

9.8. It can be seen in figure 4 above that in the MCP duration curve of March, 2024, for 34.00 % of the time MCP was above Wt. Avg. MCP of the month (i.e. ₹ 3.91/kWh) and almost 66.00 % 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, 2023 to 31st March, 2024 (figure-5), that for 35.00 % of the time the MCP was above the Wt. Avg. MCP for the period (i.e. ₹ 5.24/kWh) and for 65.00 % 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 March, 2024, the maximum FSV occurred mostly during the **time period 07-08 Hrs** (on 21 no. of days). Whereas, the maximum MCP occurred mostly during the **time period 19-20 Hrs** (on 10 no. of days). Similarly, the minimum FSV occurred mostly during the **time period 22-24 Hrs** (on 11 no. of days). Whereas, the minimum MCP occurred mostly during the **time period 13-14 Hrs** (on 25 no. of days). [**Annexure VI**]
- 9.11.** In March, 2024, there was congestion of **23.80 MU** in IEX and no congestion in PXIL & and no transaction of electricity took place in HPX. Further, in February, 2024, there was congestion of **0.68 MU** in IEX and no congestion in PXIL & HPX. Further, in March, 2023, there was no congestion in IEX and no transaction of electricity took place in PXIL & HPX.
- 9.12.** In March, 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 February, 2024, there was **no** real time curtailment in IEX, PXIL & HPX. Further in March, 2023, there was **no** real time curtailment in IEX and no transaction of electricity took place in PXIL & HPX.
- 9.13.** The **top 10 sellers** on the power exchanges under Day Ahead Market (**DAM**) in March, 2024 were **Uttar Pradesh, Adani Power Limited-Raipur TPP, Jindal Power Ltd. Stg-II, Chhattisgarh, Mahan Energy Limited, Madhya Pradesh, DB Power, Adani Power Limited - Raigarh TPP, Bihar and Rajasthan**, which constituted **55.58 %** of the market volume. [**Annexure VII**]
- 9.14.** The **top 10 buyers** on the power exchanges under Day Ahead Market (**DAM**) in March, 2024 were **Gujarat, Telangana, Druk Green Power Corporation Limited (DGPCL-Bhutan), Punjab, Uttarakhand, NVVN (SNA) – NEA, Tamil Nadu, Uttar Pradesh, Rajasthan and Odisha**, which constituted **78.53 %** of the market volume. [**Annexure VII**]
- 9.15.** The total volume of electricity purchased by Discoms/Licensees under DAM in March, 2024 was **3,996.10 MU**, which constituted **85.78 %** 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 March, 2024 was **2,309.39 MU**, which constituted **49.57 %** of total volume of electricity sold on the power exchanges.

10. Analysis of movement of prices observed under Real Time Market (RTM) transactions in March, 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 Peak Demand. Further, the regression analysis revealed that the elasticity of the Daily Wt. Avg. MCP with respect to Peak Demand was **4.76** in March, 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-6 below:

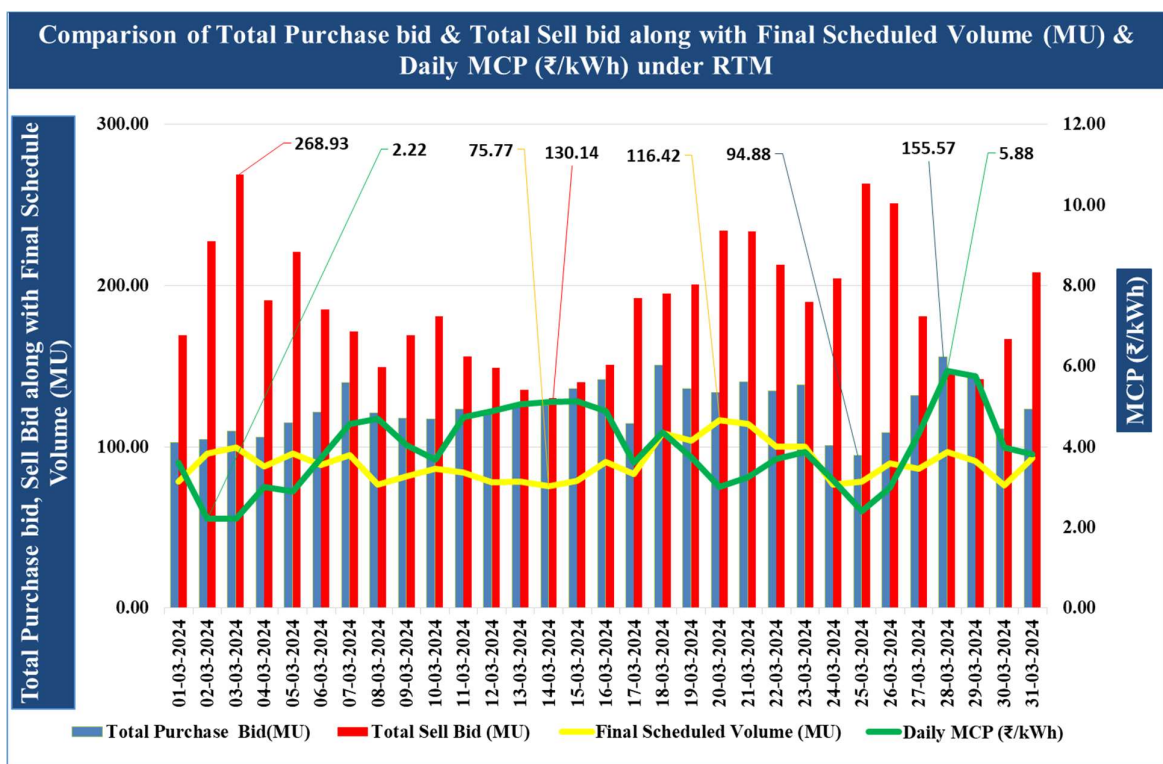


Figure-6

10.4. A comparison of maximum, minimum, daily, evening time MCP is shown in Figure-7. The same are also tabulated in Annexure-VIII.

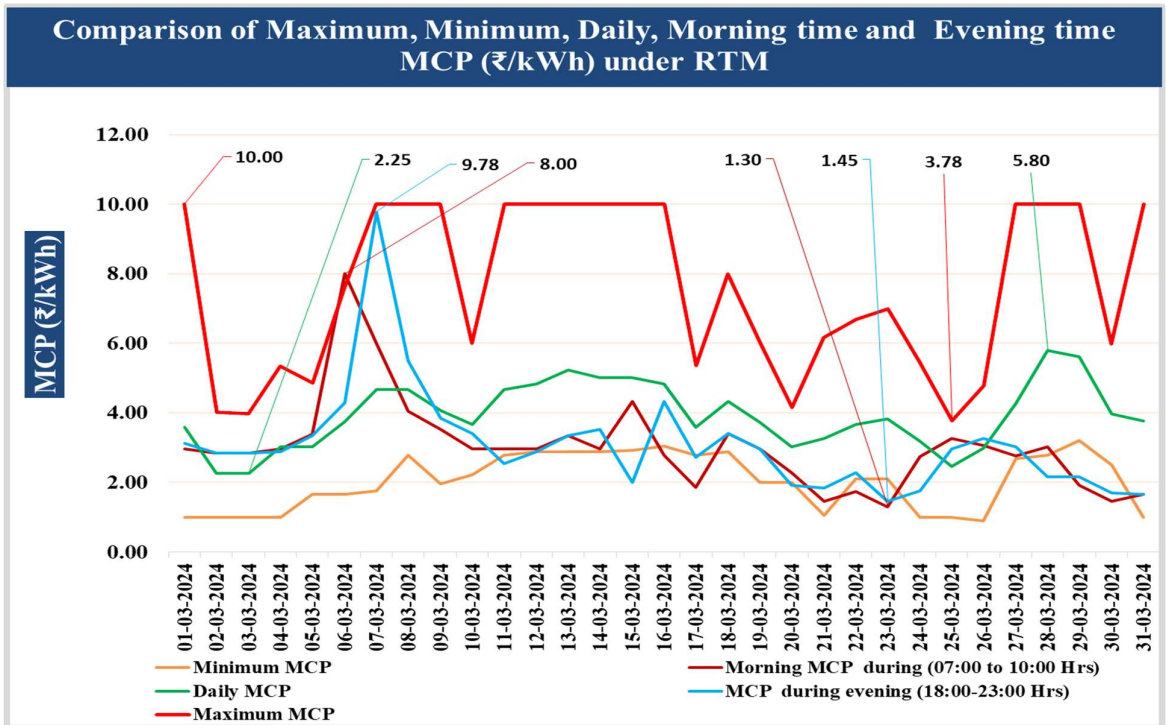


Figure-7

10.5. The Market Clearing Price duration curves for time block wise MCP for the month of March, 2024 is shown in **Figure 8**, whereas the day wise MCP duration curve for the period 1st April, 2023 to 31st March, 2024 is shown in **Figure 9**.

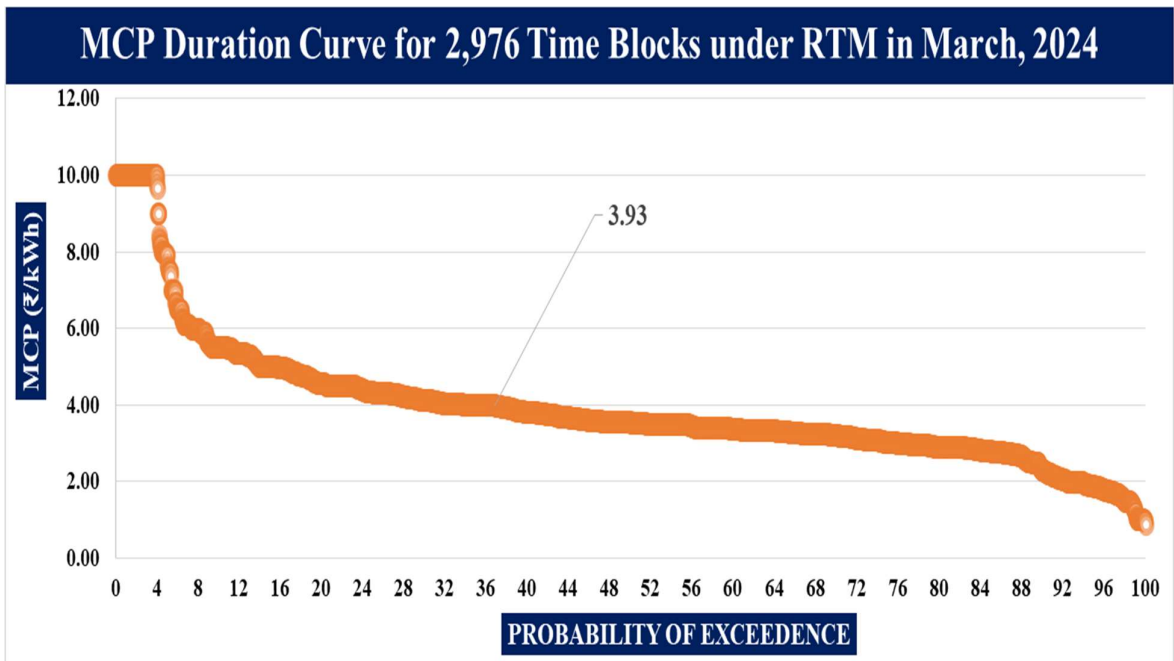


Figure-8

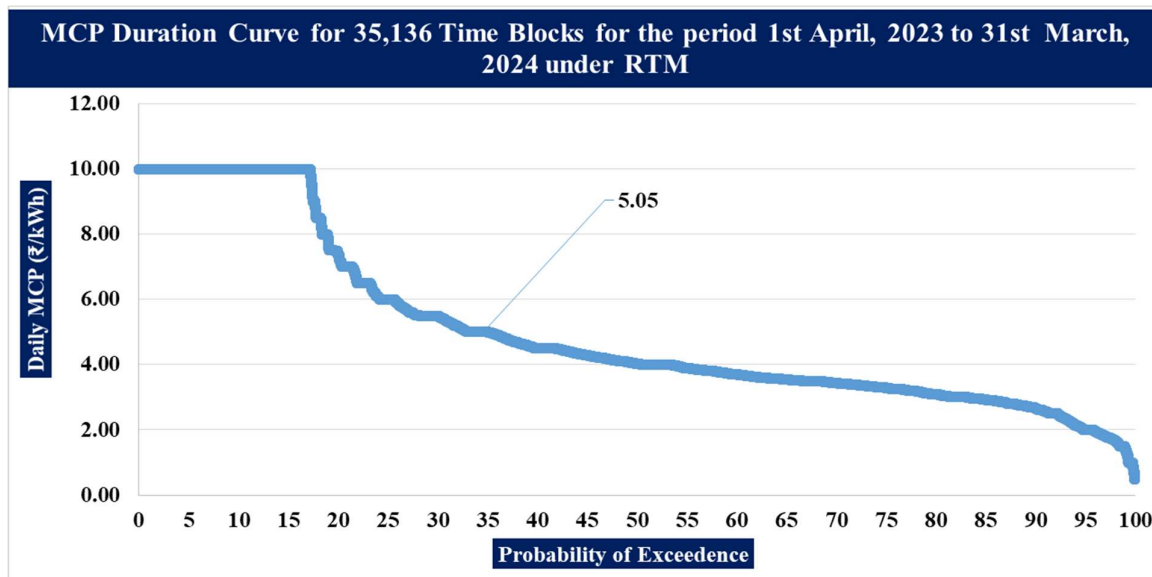


Figure-9

10.6. It can be seen in figure 8 above that in the MCP duration curve of March, 2024, for 37.00 % of the time the MCP was above the Wt. Avg. MCP of the month (i.e. ₹ 3.93/kWh) and for 63.00 % 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, 2023 to 31st March, 2024 (figure 9) that, for 35.00 % of the time the Daily Wt. Avg. MCP was above the Wt. Avg. MCP for the period (i.e. ₹ 5.05/kWh) and for 65.00 % of the time the Daily Wt. Avg. MCP was below the Wt. Avg. MCP for the period.

10.7. In March, 2024, the maximum FSV occurred mostly during the **time period 14-16 Hrs** (on 8 no. of days). Whereas, the maximum MCP also occurred mostly during the **time period 18-20 Hrs** (on 15 no. of days). Similarly, the minimum FSV occurred mostly during the **time period 18-19 Hrs** (on 9 no. of days). Whereas, the minimum MCP occurred mostly during the **time period 13-14 Hrs** (on 21 no. of days).[Annexure X]

10.8. There was **no** real time curtailment in IEX, PXIL & HPX under Real Time Market (RTM) during March, 2024. Further, in February, 2024 **no** real time curtailment in IEX and no transaction took place in PXIL & HPX. Similarly, in March, 2023, there was **no** real time curtailment in IEX and no transaction took place in PXIL & HPX.

10.9. In March, 2024, there was congestion of **0.04 MU** in IEX and no congestion in PXIL & HPX. Further, in February, 2024, there was no congestion in IEX and no transaction took place in PXIL & HPX. Similarly, in March, 2023, there was congestion of **0.89 MU** in IEX and no transaction took place in PXIL & HPX.

10.10. The **top 10 sellers** on the power exchanges under Real Time Market (RTM) in March, 2024 were **ADANI RENEWABLE ENERGY HOLDING FOUR LIMITED, Andhra Pradesh, ADANI WIND ENERGY KUTCHH FOUR Ltd. Nakhatrana, Madhya Pradesh, Himachal Pradesh, Continuum Power Trading (TN) Private Limited, TPSL 200MW TPTCL Banderwala, ADANI SOLAR ENERGY RJ TWO PRIVATE LIMITED (infirm), Amplus Ages Private Limited and Transition Energy Services Private Limited**, which constituted **64.78 %** of the market volume. [Annexure XI]

10.11. The **top 10 buyers** on the power exchanges under Real Time Market (RTM) in March, 2024 were **ArcelorMittal Nippon steel (ESIL), Tamil Nadu, Maharashtra, Punjab, DVC, Delhi, Uttar Pradesh, Gujarat, Railways and Rajasthan**, which constituted **83.69 %** of the market volume. [Annexure XI]

10.12. The total volume of electricity purchased by Discoms/Licensees under RTM in March, 2024 was **2,626.59 MU**, which constituted **94.28 %** 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 March, 2024 was **2,180.75 MU**, which constituted **78.28 %** 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, 2023 to March, 2024 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, 2023	4,408.93	0	0	5.08	0	0	0	0	0
	May, 2023	3,999.76	1.56	0	4.77	6.94	0	0	1.55	0
	June, 2023	4,123.34	0.03	0	5.16	10.00	0	0	0	0
Total Quarter -I	April - June, 2023	12,532.03	1.59	0	5.01	7.00	0	0	1.55	0
Quarter -II	July, 2023	3,966.20	0	0	4.52	0	0	0	0	0
	August, 2023	3,881.41	16.34	0.27	6.43	9.33	10.00	0	0	0
	September, 2023	3,405.42	11.67	18.51	5.87	10.00	10.00	0	0	0
Total Quarter -II	July - September, 2023	11,253.03	28.01	18.78	5.59	9.61	10.00	0.00	0.00	0.00
Quarter -III	October, 2023	4,688.35	21.60	36.83	6.36	10.00	10.00	0	0	0
	November, 2023	5,196.16	3.12	2.15	4.16	9.36	10.00	0	0	0
	December, 2023	4,757.55	3.30	10.95	4.69	9.54	10.00	0	0	0
Total Quarter -III	October - December, 2023	14,642.06	28.02	49.93	5.04	9.87	10.00	0.00	0.00	0.00
Quarter -IV	January, 2024	5,561.85	17.19	9.11	6.03	10.00	10.00	0	0	0
	February, 2024	4,741.75	3.72	0.64	5.00	9.70	10.00	0	0	0
	March, 2024	4658.59	0.04	0.00	3.96	5.78	0	0	0	0
Total Quarter -IV	January- March, 2024	14,962.19	20.95	9.75	5.06	9.94	10.00	0.00	0.00	0.00
Total April, 2023 – March, 2024		53,389.31	78.57	78.46	5.15	9.74	10.00	0.00	1.55	0.00

Annexure-II

Final Scheduled Volume under Term Ahead Market (TAM) for the months of April, 2023 to March, 2024 of IEX, PXIL and HPX (Delivery date basis)					
Quarter	Months	Final Scheduled Volume (MU)			
		IEX	PXIL	HPX	Total
Quarter -I	April, 2023	317.91	111.30	321.83	751.04
	May, 2023	607.72	133.80	198.75	940.27
	June, 2023	322.49	172.80	95.24	590.53
Total Quarter – I	April - June, 2023	1,248.12	417.90	615.82	2,281.84
Quarter -II	July, 2023	287.60	20.40	154.02	462.02
	August, 2023	768.73	287.36	355.21	1,411.30
	September, 2023	1,131.71	1,017.15	516.10	2,664.96
Total Quarter – II	July - September, 2023	2,188.04	1,324.91	1,025.33	4,538.28
Quarter -III	October, 2023	1,677.00	611.28	842.29	3,130.57
	November, 2023	642.96	153.00	119.41	915.37
	December, 2023	1071.93	23.42	103.64	1198.99
Total Quarter - III	October - December, 2023	3,391.89	787.70	1,065.34	5,244.93
Quarter -IV	January, 2024	1,103.79	179.26	368.89	1,651.94
	February , 2024	1,369.55	661.85	615.08	2,646.48
	March, 2024	759.22	870.60	890.74	2,520.56
Total Quarter - IV	January - March, 2024	3,232.56	1,711.71	1,874.71	6,818.98
Total April, 2023 – March, 2024		10,060.61	4,242.22	4,581.20	18,884.03

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

(i) Top five Buyers in Bilateral transactions

Entity Name	Direct		Entity Name	Through Traders	
	(MU)	Percent		(MU)	Percent
Karnataka	408.36	55.27%	Tamil Nadu	1265.42	37.24%
Jharkhand	129.34	17.51%	Karnataka	1066.53	31.39%
Daman and Diu - Dadra and Nagar Haveli	59.52	8.06%	Kerala	464.88	13.68%
Odisha	52.34	7.08%	Maharashtra	320.61	9.43%
Telangana	30.71	4.16%	Himachal Pradesh	177.54	5.22%
Total Volume	680.26	92.07%	Total Volume	3,294.98	96.96%
Total Volume in Bilateral	738.86		Total Volume in Bilateral	3,398.13	

(ii) Top five Sellers in Bilateral transactions

Entity Name	Direct		Entity Name	Through Traders	
	(MU)	Percent		(MU)	Percent
Andhra Pradesh	311.95	42.22%	COASTAL ENERGEN PRIVATE	381.52	11.23%
ADHUNIK POWER & NATURAL RESOURCES LIMITED	129.34	17.51%	IL&FS TAMIL NADU POWER COMPANY LIMITED	289.93	8.53%
Uttar Pradesh	104.88	14.19%	Jindal Power Limited, Stage-2	289.80	8.53%
Gujarat	59.72	8.08%	Jindal India Thermal Power Limited	238.08	7.01%
Jindal India Thermal Power Limited	44.64	6.04%	Punjab	178.26	5.25%
Total Volume	650.53	88.05%	Total Volume	1,377.59	40.54%
Total Volume in Bilateral	738.86		Total Volume in Bilateral	3,398.13	

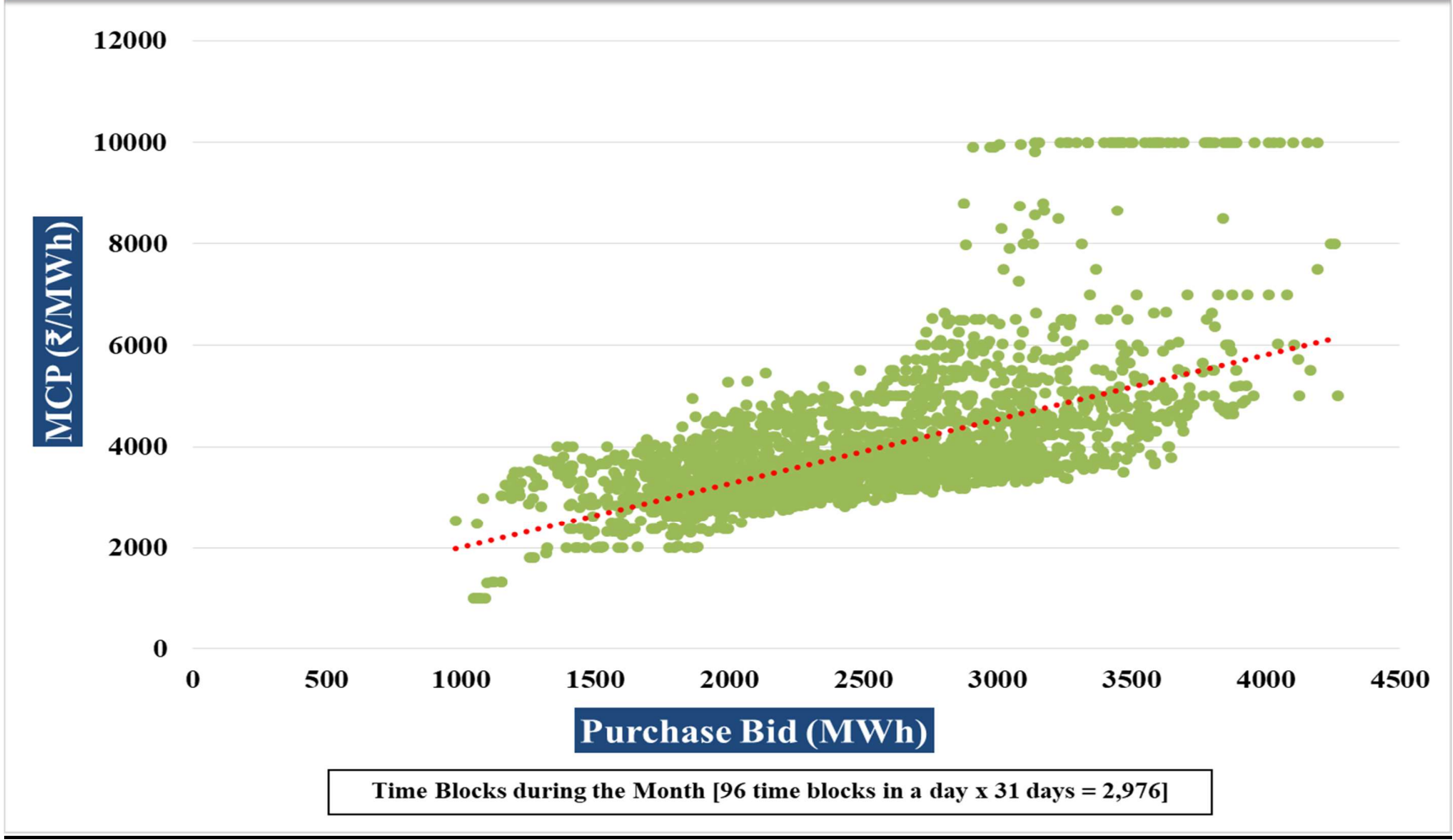
Annexure-IV**Evening, Day, Night, Morning, Maximum, Minimum, Wt. Avg. MCP (₹/kWh) and Final Scheduled Volume (MU) under DAM**

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)
01-03-2024	8.71	3.81	4.09	3.38	10.00	3.16	4.57	136.25
02-03-2024	4.67	3.26	3.62	3.23	7.26	2.38	3.58	120.14
03-03-2024	3.59	3.02	3.50	3.04	3.85	2.37	3.24	138.02
04-03-2024	4.63	3.41	3.95	3.06	5.31	2.63	3.65	139.70
05-03-2024	4.11	3.27	3.90	3.17	4.96	2.84	3.54	123.78
06-03-2024	3.94	3.08	3.71	3.03	4.70	2.32	3.37	136.48
07-03-2024	4.39	3.02	3.88	3.17	6.00	2.25	3.51	150.55
08-03-2024	5.55	3.08	4.31	3.47	8.00	2.37	3.91	180.07
09-03-2024	6.47	3.27	4.70	3.43	10.00	2.25	4.21	174.75
10-03-2024	3.97	2.94	3.70	3.30	4.77	2.32	3.41	160.58
11-03-2024	5.58	3.17	4.29	3.35	10.00	2.62	3.90	170.16
12-03-2024	4.12	3.22	4.27	3.31	5.00	2.84	3.66	158.06
13-03-2024	4.44	3.25	5.15	3.54	8.00	2.88	4.01	158.14
14-03-2024	5.70	3.65	7.15	4.22	10.00	3.07	5.03	157.92
15-03-2024	4.71	3.46	6.29	4.04	10.00	2.98	4.55	167.15
16-03-2024	4.71	3.80	6.45	4.45	10.00	3.50	4.80	164.73
17-03-2024	4.43	3.49	4.17	3.99	5.29	3.26	3.96	151.47
18-03-2024	4.33	3.69	4.78	3.56	6.43	3.32	4.03	138.61
19-03-2024	4.58	3.48	4.42	3.85	5.50	2.83	4.01	155.85
20-03-2024	4.25	3.49	4.43	3.71	6.00	3.04	3.92	153.50
21-03-2024	3.98	3.40	4.69	3.68	6.50	2.83	3.90	168.67
22-03-2024	3.74	3.18	4.38	3.52	6.00	2.70	3.67	163.71
23-03-2024	4.22	3.29	4.40	3.63	6.00	2.95	3.82	164.08
24-03-2024	3.82	2.90	3.75	3.67	4.79	2.00	3.49	165.77
25-03-2024	2.95	1.57	3.15	3.47	3.95	1.00	2.75	122.59
26-03-2024	3.20	2.69	3.88	3.09	4.59	2.00	3.19	135.43
27-03-2024	3.73	2.91	4.05	3.53	4.60	2.38	3.51	133.57
28-03-2024	4.06	3.30	4.64	3.93	5.50	2.89	3.95	147.32
29-03-2024	4.24	3.26	5.81	5.91	10.00	2.70	4.84	136.33
30-03-2024	3.95	3.36	7.02	6.08	10.00	2.89	5.16	151.71
31-03-2024	3.66	2.81	4.39	5.31	10.00	2.00	4.08	133.51
Maximum	8.71	3.81	7.15	6.08	10.00	3.50	5.16	180.07
Minimum	2.95	1.57	3.15	3.03	3.85	1.00	2.75	120.14
Average	4.47	3.21	4.55	3.75	6.87	2.63	3.91	150.28

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 March, 2024 under DAM



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
01-03-2024	10:15 - 10:30	1.97	06:45 - 07:00	10.00	22:45 - 23:00	0.89	03:45 - 04:00	3.16
02-03-2024	06:45 - 07:00	1.71	07:45 - 08:00	7.26	23:00 - 23:15	0.84	13:00 - 13:15	2.38
03-03-2024	07:00 - 07:15	1.87	19:15 - 19:30	3.85	12:15 - 12:30	1.19	13:30 - 13:45	2.37
04-03-2024	09:00 - 09:15	1.85	07:45 - 08:00	5.31	13:00 - 13:15	1.09	04:00 - 04:15	2.63
05-03-2024	07:15 - 07:30	1.61	07:15 - 07:30	4.96	23:00 - 23:15	0.87	04:00 - 04:15	2.84
06-03-2024	16:30 - 16:45	1.81	07:30 - 07:45	4.70	22:45 - 23:00	0.98	13:15 - 13:30	2.32
07-03-2024	07:00 - 07:15	2.01	07:30 - 07:45	6.00	17:15 - 17:30	1.20	13:15 - 13:30	2.25
08-03-2024	07:00 - 07:15	2.80	07:45 - 08:00	8.00	19:45 - 20:00	1.34	13:15 - 13:30	2.37
09-03-2024	16:30 - 16:45	2.21	07:15 - 07:30	10.00	19:45 - 20:00	1.41	13:00 - 13:15	2.25
10-03-2024	07:15 - 07:30	2.34	07:45 - 08:00	4.77	19:45 - 20:00	1.28	13:15 - 13:30	2.32
11-03-2024	07:15 - 07:30	2.71	07:15 - 07:30	10.00	19:45 - 20:00	1.14	13:15 - 13:30	2.62
12-03-2024	07:15 - 07:30	2.26	07:45 - 08:00	5.00	19:30 - 19:45	1.22	13:15 - 13:30	2.84
13-03-2024	07:15 - 07:30	2.57	19:00 - 19:15	8.00	12:30 - 12:45	1.16	13:30 - 13:45	2.88
14-03-2024	07:15 - 07:30	2.19	18:30 - 18:45	10.00	19:15 - 19:30	1.23	13:30 - 13:45	3.07
15-03-2024	07:15 - 07:30	2.59	18:30 - 18:45	10.00	20:45 - 21:00	1.31	13:30 - 13:45	2.98
16-03-2024	07:15 - 07:30	2.29	18:45 - 19:00	10.00	23:15 - 23:30	1.35	13:30 - 13:45	3.50
17-03-2024	07:15 - 07:30	2.41	00:00 - 00:15	5.29	23:15 - 23:30	1.03	13:45 - 14:00	3.26
18-03-2024	09:45 - 10:00	2.01	19:15 - 19:30	6.43	05:45 - 06:00	0.91	03:00 - 03:15	3.32
19-03-2024	07:15 - 07:30	2.30	07:15 - 07:30	5.50	23:00 - 23:15	1.18	13:15 - 13:30	2.83
20-03-2024	07:15 - 07:30	2.38	19:15 - 19:30	6.00	23:15 - 23:30	1.07	13:15 - 13:30	3.04
21-03-2024	07:15 - 07:30	2.61	19:15 - 19:30	6.50	03:00 - 03:15	1.35	13:15 - 13:30	2.83
22-03-2024	07:15 - 07:30	2.66	19:15 - 19:30	6.00	23:00 - 23:15	1.27	13:15 - 13:30	2.70
23-03-2024	07:15 - 07:30	2.67	19:15 - 19:30	6.00	23:00 - 23:15	1.21	14:00 - 14:15	2.95
24-03-2024	06:45 - 07:00	2.53	00:00 - 00:15	4.79	23:15 - 23:30	1.17	13:15 - 13:30	2.00
25-03-2024	06:45 - 07:00	1.89	06:45 - 07:00	3.95	17:45 - 18:00	0.68	11:45 - 12:00	1.00
26-03-2024	15:30 - 15:45	1.71	19:30 - 19:45	4.59	06:00 - 06:15	1.10	13:00 - 13:15	2.00
27-03-2024	07:00 - 07:15	2.02	19:30 - 19:45	4.60	14:00 - 14:15	1.17	13:15 - 13:30	2.38
28-03-2024	07:00 - 07:15	2.13	19:00 - 19:15	5.50	12:45 - 13:00	1.17	13:15 - 13:30	2.89
29-03-2024	07:00 - 07:15	1.94	00:00 - 00:15	10.00	08:45 - 09:00	1.17	13:00 - 13:15	2.70
30-03-2024	16:15 - 16:30	1.98	00:00 - 00:15	10.00	20:00 - 20:15	1.25	13:15 - 13:30	2.89
31-03-2024	07:00 - 07:15	2.00	00:00 - 00:15	10.00	17:45 - 18:00	1.06	13:15 - 13:30	2.00

MCP: Market Clearing Price (₹/kWh)

FSV: Final Scheduled Volume (MU)

Annexure-VII

Sellers and Buyers under Day Ahead Market (DAM) in March, 2024						
S. No.	Entity Name	Sell		Entity Name	Purchase	
		(MU)	Percent (%)		(MU)	Percent (%)
1	Uttar Pradesh	666.72	14.31%	Gujarat	971.49	20.85%
2	Adani Power	328.96	7.06%	Telangana	720.35	15.46%
3	Jindal Power Ltd.	273.27	5.87%	Druk Green Power	291.90	6.27%
4	Chhattisgarh	230.37	4.94%	Punjab	285.32	6.12%
5	Mahan Energy	230.22	4.94%	Uttarakhand	264.43	5.68%
6	Madhya Pradesh	207.42	4.45%	NVVN (SNA) - NEA	259.54	5.57%
7	DB Power	186.56	4.00%	Tamil Nadu	253.85	5.45%
8	Adani Power	170.49	3.66%	Uttar Pradesh	244.82	5.26%
9	Bihar	149.18	3.20%	Rajasthan	184.96	3.97%
10	Rajasthan	146.03	3.13%	Odisha	181.60	3.90%
11	Telangana	134.99	2.90%	J&K	162.35	3.48%
12	Delhi	119.93	2.57%	Maharashtra	135.23	2.90%
13	JITPL	113.89	2.44%	Andhra Pradesh	118.71	2.55%
14	Jindal Power	109.71	2.36%	West Bengal	89.99	1.93%
15	Haryana	109.63	2.35%	Kerala	78.46	1.68%
16	Jindal Steel	104.15	2.24%	Madhya Pradesh	49.31	1.06%
17	Maharashtra	96.02	2.06%	Karnataka	47.94	1.03%
18	Himachal Pradesh	74.77	1.61%	Meghalaya	39.27	0.84%
19	West Bengal	69.35	1.49%	Daman & Diu - Dadra &	34.66	0.74%
20	Odisha	66.45	1.43%	ArcelorMittal Nippon	33.25	0.71%
21	Andhra Pradesh	55.75	1.20%	Haryana	33.13	0.71%
22	RENEW SURYA	46.40	1.00%	NEA-NR	31.78	0.68%
23	Gujarat	45.68	0.98%	Railways	24.17	0.52%
24	RENEW SURYA	45.63	0.98%	Himachal Pradesh	22.44	0.48%
25	Renew Surya Ravi	45.35	0.97%	Delhi	17.84	0.38%
26	Chandigarh	37.95	0.81%	MB Power	13.90	0.30%
27	ACBIL	36.17	0.78%	Arunachal Pradesh	13.23	0.28%
28	RKM Power	35.67	0.77%	Goa WR	10.15	0.22%
29	Tamil Nadu	35.62	0.76%	Goa SR	8.10	0.17%
30	Jaypee Nigrie	33.52	0.72%	Assam	7.44	0.16%
31	ADANI WIND	31.88	0.68%	SKS Power	6.95	0.15%
32	RENEW SURYA	30.06	0.65%	Chhattisgarh	6.54	0.14%
33	Pondicherry	29.61	0.64%	Jharkhand	4.49	0.10%
34	IND BARATH	26.76	0.57%	Manipur	2.96	0.06%
35	Adept Renewable	26.63	0.57%	Nagaland	2.91	0.06%
36	Sembcorp Energy	26.63	0.57%	Sikkim	1.98	0.04%
37	Nabinagar Power	26.57	0.57%	Bihar	1.13	0.02%
38	ADANI	26.45	0.57%	Jindal Power	1.03	0.02%
39	Barh Stg-2	26.30	0.56%	Tripura	0.98	0.02%
40	Amp Energy Green	22.56	0.48%	Chandigarh	0.07	0.002%
41	Onevolt Energy	21.11	0.45%	NTPL	0.01	0.0002%
42	ADANI SOLAR	20.45	0.44%	DVC	0.01	0.0001%
43	Karcham Wangtoo	18.75	0.40%			
44	Dhariwal ISTS	18.02	0.39%			
45	RENEW SURYA	16.64	0.36%			
46	AD Hydro	14.34	0.31%			
47	ADANI SOLAR	12.73	0.27%			
48	DVC	12.60	0.27%			
49	TRN Energy	11.48	0.25%			
50	Sembcorp Gayatri	10.49	0.23%			
51	Goa WR	9.94	0.21%			

52	Ramagundam	9.79	0.21%			
53	Grian Energy	9.57	0.21%			
54	Adani Green Energy	9.32	0.20%			
55	DGEN Mega Power	9.17	0.20%			
56	ADHUNIK POWER	9.11	0.20%			
57	DHARIWAL STU	8.36	0.18%			
58	Amplus Ages	8.36	0.18%			
59	Simhapuri Energy	8.09	0.17%			
60	ADANI SOLAR	7.12	0.15%			
61	Shree Cement	6.38	0.14%			
62	Sainj HEP	6.34	0.14%			
63	Maruti Clean Coal	5.72	0.12%			
64	Ostro Kannada	5.56	0.12%			
65	WIND FIVE	5.44	0.12%			
66	Adani Green Energy	5.19	0.11%			
67	Farakka	4.83	0.10%			
68	Singoli Bhagwati	4.53	0.10%			
69	Unchahar-IV	4.37	0.09%			
70	KSK Mahanadi	4.35	0.09%			
71	RENEW SURYA	4.27	0.09%			
72	SKS Power	4.12	0.09%			
73	Sorang HEP,	4.04	0.09%			
74	ADANI WIND	3.80	0.08%			
75	Talcher	3.40	0.07%			
76	GMR Warora	3.40	0.07%			
77	Nagaland	3.14	0.07%			
78	Unchahar-III	3.14	0.07%			
79	Jhabua Power	2.65	0.06%			
80	Simhadri FSP 15	2.58	0.06%			
81	Unchahar-I	2.54	0.05%			
82	RENEW SURYA	2.46	0.05%			
83	Uttarakhand	2.03	0.04%			
84	Punjab	1.96	0.04%			
85	Dadri Stg-2	1.94	0.04%			
86	Kahalgaon	1.94	0.04%			
87	RENEW SURYA	1.86	0.04%			
88	Transition Energy	1.70	0.04%			
89	Farakka Stg 3	1.61	0.03%			
90	Unchahar-II	1.56	0.03%			
91	NTPC Simhadri 25	1.54	0.03%			
92	NTPC Kudgi	1.52	0.03%			
93	IL&FS	1.32	0.03%			
94	Mizoram	1.24	0.03%			
95	BALCO 2	1.22	0.03%			
96	Talcher Stg-2	1.19	0.03%			
97	Kerala	1.17	0.03%			
98	Singrauli	1.11	0.02%			
99	Dadri TPS	1.08	0.02%			
100	Bongaigaon	1.06	0.02%			
101	Barh STPS Stg - I	0.96	0.02%			
102	Darlipalli	0.92	0.02%			
103	Korba	0.89	0.02%			
104	J&K	0.78	0.02%			
105	Continuum Power	0.75	0.02%			
106	Meghalaya	0.71	0.02%			
107	NTPC Sholapur	0.67	0.01%			
108	Lanco Budhil	0.66	0.01%			

109	TPSL 200MW	0.61	0.01%			
110	Rihand-I	0.55	0.01%			
111	Khargone STPP	0.46	0.01%			
112	Sipat Stg-2	0.45	0.01%			
113	KBUNL(MTPS-II)	0.44	0.01%			
114	IGSTPS JHAJJAR	0.44	0.01%			
115	Kopili Power	0.42	0.01%			
116	Simhadri Stg-2	0.42	0.01%			
117	Adani Green Energy	0.42	0.01%			
118	GMR Kamalanga	0.41	0.01%			
119	NTPC North	0.37	0.01%			
120	Rihand-II	0.34	0.01%			
121	Vindhyachal stg-3	0.34	0.01%			
122	Vindhyachal stg-2	0.33	0.01%			
123	Kahalgaon-II	0.27	0.01%			
124	RENEW SURYA	0.24	0.01%			
125	NTPC Telangana	0.23	0.005%			
126	Vindhyachal stg-1	0.21	0.005%			
127	Manipur	0.19	0.004%			
128	Ramagundam Stg-1	0.16	0.003%			
129	ADANI SOLAR	0.13	0.003%			
130	Karnataka	0.12	0.003%			
131	Ramagundam Stg-3	0.10	0.002%			
132	Tanda Stg-2	0.10	0.002%			
133	NLC TPS-II Stg-2	0.09	0.002%			
134	MB Power	0.08	0.002%			
135	NTECL Vallur	0.06	0.001%			
136	NLC TPS-II	0.06	0.001%			
137	NTPC Gadarwara	0.05	0.001%			
138	Nani Virani Wind	0.04	0.001%			
139	Tripura	0.02	0.0004%			
140	Mouda Stg-2	0.02	0.0004%			
141	NLC TPS-II Expn	0.02	0.0004%			
142	Mouda Stg-1	0.01	0.0003%			
143	Neyveli New	0.01	0.0002%			
144	INOX GREEN	0.01	0.0002%			
145	NLC	0.01	0.0001%			
Total Volume of top 10		2,589.21	55.58%	Total Volume of top 10	3,658.24	78.53%
Total Volume in PXs		4,658.63		Total Volume in PXs	4,658.63	

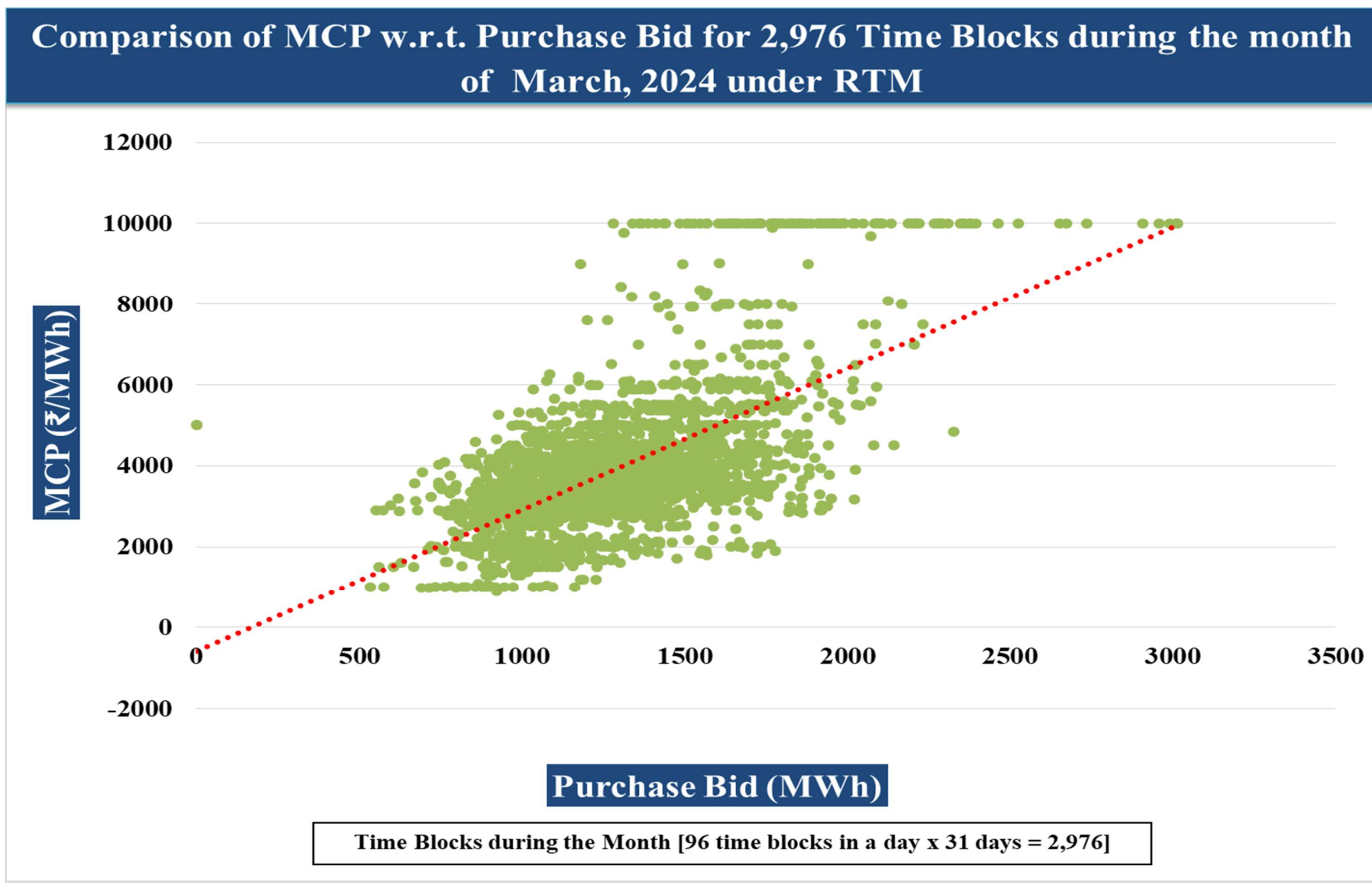
Annexure-VIII

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)
01-03-2024	2.96	2.96	3.13	2.96	10.00	1.00	3.58	78.44
02-03-2024	2.84	2.78	2.83	2.84	4.01	1.00	2.26	95.71
03-03-2024	2.83	2.83	2.83	2.83	3.97	1.00	2.25	99.49
04-03-2024	2.96	2.86	2.89	2.83	5.34	1.00	3.02	87.99
05-03-2024	3.38	3.35	3.35	3.40	4.86	1.66	3.03	95.75
06-03-2024	8.00	5.50	4.28	6.00	7.60	1.66	3.75	88.75
07-03-2024	6.00	10.00	9.78	10.00	10.00	1.76	4.67	94.65
08-03-2024	4.05	5.55	5.50	4.96	10.00	2.79	4.68	76.68
09-03-2024	3.52	4.03	3.85	3.79	10.00	1.96	4.06	81.56
10-03-2024	2.96	3.45	3.40	2.96	6.00	2.22	3.66	86.46
11-03-2024	2.96	2.25	2.54	2.91	10.00	2.79	4.66	83.91
12-03-2024	2.96	2.96	2.88	2.89	10.00	2.89	4.84	78.10
13-03-2024	3.35	3.35	3.35	3.35	10.00	2.89	5.22	78.54
14-03-2024	2.96	3.58	3.52	2.88	10.00	2.89	5.01	75.77
15-03-2024	4.32	1.00	2.00	1.50	10.00	2.93	5.01	79.08
16-03-2024	2.78	4.32	4.32	3.50	10.00	3.04	4.83	90.60
17-03-2024	1.86	2.00	2.72	2.00	5.37	2.78	3.59	83.26
18-03-2024	3.40	3.40	3.40	2.99	8.00	2.88	4.33	108.43
19-03-2024	2.96	2.88	2.96	2.88	6.00	2.00	3.74	104.03
20-03-2024	2.27	2.08	1.92	2.27	4.17	2.00	3.03	116.42
21-03-2024	1.45	1.63	1.84	1.63	6.16	1.06	3.27	114.20
22-03-2024	1.73	2.27	2.27	2.10	6.69	2.10	3.66	100.00
23-03-2024	1.30	1.35	1.45	1.35	6.99	2.10	3.82	99.89
24-03-2024	2.74	2.08	1.75	2.65	5.47	0.99	3.18	76.49
25-03-2024	3.26	3.40	2.96	3.40	3.78	0.99	2.46	78.62
26-03-2024	3.07	3.52	3.26	3.39	4.79	0.90	2.98	89.67
27-03-2024	2.77	3.03	3.03	3.03	10.00	2.68	4.26	86.39
28-03-2024	3.03	2.31	2.15	2.96	10.00	2.79	5.80	96.61
29-03-2024	1.93	2.07	2.15	2.08	10.00	3.20	5.61	91.11
30-03-2024	1.45	1.60	1.70	1.30	5.99	2.50	3.97	76.24
31-03-2024	1.66	1.73	1.66	1.77	10.00	0.99	3.76	92.78
Maximum	8.00	10.00	9.78	10.00	10.00	3.20	5.80	116.42
Minimum	1.30	1.00	1.45	1.30	3.78	0.90	2.25	75.77
Average	3.02	3.10	3.09	3.08	7.59	2.05	3.94	89.86

MCP: Market Clearing Price (₹/kWh)

FSV: Final Scheduled Volume (MU)



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
01-03-2024	14:45 - 15:00	1.11	08:00 - 08:15	10.00	18:30 - 18:45	0.47	18:00 - 18:15	1.00
02-03-2024	15:45 - 16:00	1.62	18:45 - 19:00	4.01	01:45 - 02:00	0.71	18:00 - 18:15	1.00
03-03-2024	17:00 - 17:15	1.38	18:45 - 19:00	3.97	09:15 - 09:30	0.79	16:00 - 16:15	1.00
04-03-2024	08:00 - 08:15	1.18	08:00 - 08:15	5.34	18:15 - 18:30	0.53	03:45 - 04:00	1.00
05-03-2024	14:45 - 15:00	1.77	19:15 - 19:30	4.86	08:15 - 08:30	0.52	13:00 - 13:15	1.66
06-03-2024	11:30 - 11:45	1.41	19:15 - 19:30	7.60	04:30 - 04:45	0.58	13:00 - 13:15	1.66
07-03-2024	16:00 - 16:15	1.37	07:15 - 07:30	10.00	18:45 - 19:00	0.64	13:00 - 13:15	1.76
08-03-2024	10:00 - 10:15	1.20	06:45 - 07:00	10.00	04:00 - 04:15	0.57	15:00 - 15:15	2.79
09-03-2024	14:45 - 15:00	1.28	07:30 - 07:45	10.00	23:30 - 23:45	0.45	13:30 - 13:45	1.96
10-03-2024	05:45 - 06:00	1.25	07:15 - 07:30	6.00	23:00 - 23:15	0.57	13:30 - 13:45	2.22
11-03-2024	19:45 - 20:00	1.30	07:15 - 07:30	10.00	02:15 - 02:30	0.55	04:00 - 04:15	2.79
12-03-2024	07:30 - 07:45	1.25	18:30 - 18:45	10.00	18:45 - 19:00	0.36	13:15 - 13:30	2.89
13-03-2024	10:15 - 10:30	1.34	06:45 - 07:00	10.00	19:00 - 19:15	0.42	13:00 - 13:15	2.89
14-03-2024	21:45 - 22:00	1.12	06:45 - 07:00	10.00	04:15 - 04:30	0.51	13:15 - 13:30	2.89
15-03-2024	15:45 - 16:00	1.35	18:30 - 18:45	10.00	05:15 - 05:30	0.42	13:00 - 13:15	2.93
16-03-2024	16:00 - 16:15	1.43	18:45 - 19:00	10.00	04:15 - 04:30	0.64	13:00 - 13:15	3.04
17-03-2024	22:15 - 22:30	1.20	19:15 - 19:30	5.37	07:45 - 08:00	0.46	13:45 - 14:00	2.78
18-03-2024	16:30 - 16:45	1.54	06:45 - 07:00	8.00	18:30 - 18:45	0.72	13:15 - 13:30	2.88
19-03-2024	14:45 - 15:00	1.49	19:30 - 19:45	6.00	04:15 - 04:30	0.70	17:15 - 17:30	2.00
20-03-2024	15:15 - 15:30	1.72	18:45 - 19:00	4.17	08:00 - 08:15	0.78	07:30 - 07:45	2.00
21-03-2024	02:30 - 02:45	1.63	19:30 - 19:45	6.16	09:15 - 09:30	0.82	13:30 - 13:45	1.06
22-03-2024	17:00 - 17:15	1.42	19:15 - 19:30	6.69	13:00 - 13:15	0.82	13:15 - 13:30	2.10
23-03-2024	16:45 - 17:00	1.63	06:45 - 07:00	6.99	08:30 - 08:45	0.79	13:15 - 13:30	2.10
24-03-2024	06:45 - 07:00	1.07	06:45 - 07:00	5.47	18:30 - 18:45	0.56	13:15 - 13:30	0.99
25-03-2024	12:15 - 12:30	1.11	06:30 - 06:45	3.78	18:00 - 18:15	0.58	18:00 - 18:15	0.99
26-03-2024	06:45 - 07:00	1.25	19:15 - 19:30	4.79	22:15 - 22:30	0.63	05:30 - 05:45	0.90
27-03-2024	23:15 - 23:30	1.18	23:00 - 23:15	10.00	19:00 - 19:15	0.63	13:00 - 13:15	2.68
28-03-2024	22:00 - 22:15	1.25	18:30 - 18:45	10.00	08:30 - 08:45	0.63	13:00 - 13:15	2.79
29-03-2024	20:15 - 20:30	1.40	00:00 - 00:15	10.00	09:00 - 09:15	0.63	13:00 - 13:15	3.20
30-03-2024	15:00 - 15:15	1.10	19:30 - 19:45	5.99	18:15 - 18:30	0.59	13:00 - 13:15	2.50
31-03-2024	23:15 - 23:30	1.32	00:00 - 00:15	10.00	18:30 - 18:45	0.65	13:00 - 13:15	0.99

MCP: Market Clearing Price (₹/kWh)

FSV: Final Scheduled Volume (MU)

Sellers and Buyers under Real Time Market (RTM) in March, 2024						
S. No.	Entity Name	Sell		Entity Name	Purchase	
		(MU)	Percent (%)		(MU)	Percent (%)
1	Madhya Pradesh	418.43	15.02%	Punjab	497.37	17.85%
2	Bihar	417.85	15.00%	Telangana	294.72	10.58%
3	Uttar Pradesh	225.87	8.11%	Rajasthan	214.41	7.70%
4	Odisha	134.60	4.83%	Uttar Pradesh	193.31	6.94%
5	Chhattisgarh	119.19	4.28%	Kerala	192.53	6.91%
6	Rajasthan	110.72	3.97%	Odisha	180.49	6.48%
7	Maharashtra	102.09	3.66%	Tamil Nadu	169.53	6.09%
8	Jharkhand	90.57	3.25%	West Bengal	138.83	4.98%
9	West Bengal	88.16	3.16%	Maharashtra	127.85	4.59%
10	NPCIL	65.45	2.35%	Gujarat	118.89	4.27%
11	Delhi	51.06	1.83%	Andhra Pradesh	103.42	3.71%
12	Assam	50.52	1.81%	J&K	90.41	3.25%
13	J&K	48.38	1.74%	Delhi	49.68	1.78%
14	Andhra Pradesh	42.24	1.52%	Karnataka	43.16	1.55%
15	Nabinagar Power	42.23	1.52%	SKS Power	41.76	1.50%
16	Telangana	42.02	1.51%	Uttarakhand	32.17	1.15%
17	Himachal Pradesh	40.86	1.47%	Assam	30.82	1.11%
18	Haryana	36.47	1.31%	Mahan Energy Limited	29.99	1.08%
19	NTPC North	31.16	1.12%	Chhattisgarh	28.29	1.02%
20	Pondicherry	25.59	0.92%	Haryana	26.92	0.97%
21	Uttarakhand	22.18	0.80%	Daman & Diu - Dadra &	25.44	0.91%
22	TRN Energy	18.87	0.68%	ArcelorMittal Nippon	17.44	0.63%
23	Gujarat	18.03	0.65%	Druk Green Power	15.43	0.55%
24	Kahalgaon-II	17.05	0.61%	Himachal Pradesh	14.94	0.54%
25	Mahan Energy	16.94	0.61%	Jindal Power Ltd. Stg-II	12.71	0.46%
26	Manipur	16.84	0.60%	Adani Power Limited-	11.65	0.42%
27	Sasan UMPP	16.64	0.60%	DVC	11.36	0.41%
28	RKM Power	16.58	0.60%	Meghalaya	10.38	0.37%
29	Karnataka	14.24	0.51%	Arunachal Pradesh	6.80	0.24%
30	Sembcorp Gayatri	13.63	0.49%	NVVN (SNA) - NEA	6.32	0.23%
31	Kameng HEP	12.08	0.43%	Manipur	6.26	0.22%
32	BALCO 2	11.70	0.42%	MB Power	4.86	0.17%
33	Tripura	11.48	0.41%	BHARAT	4.58	0.16%
34	Tanda Stg-2	11.45	0.41%	Jindal Power	4.48	0.16%
35	Barh Stg-2	10.75	0.39%	Jharkhand	4.41	0.16%
36	MB Power	9.85	0.35%	Madhya Pradesh	4.33	0.16%
37	Punjab	9.75	0.35%	Railways	2.51	0.09%
38	The Tata Power Co	9.42	0.34%	Jindal Steel	2.28	0.08%
39	RENEW SURYA	9.12	0.33%	Goa SR	2.18	0.08%
40	Rihand-I	8.77	0.31%	Sikkim	1.96	0.07%
41	Adani Power	8.47	0.30%	Renew Surya Ravi	1.68	0.06%
42	ADANI WIND	8.25	0.30%	Goa WR	1.68	0.06%
43	Kahalgaon	8.24	0.30%	Tripura	1.67	0.06%
44	Tamil Nadu	8.12	0.29%	Ratnagiri Gas & Power	1.36	0.05%
45	Kerala	7.24	0.26%	Nagaland	1.29	0.05%
46	Renew Surya Ravi	7.15	0.26%	Bihar	0.96	0.03%
47	Singrauli	6.97	0.25%	TRN Energy	0.59	0.02%

48	Sikkim	6.96	0.25%	Gandhar	0.58	0.02%
49	Khargone STPP	6.95	0.25%	Kawas	0.56	0.02%
50	ACBIL	6.81	0.24%	ACBIL	0.20	0.01%
51	NTPC Sholapur	6.16	0.22%	Chandigarh	0.16	0.01%
52	Rihand-II	6.15	0.22%	Simhapuri Energy	0.12	0.004%
53	Arunachal Pradesh	5.93	0.21%	NEA-NR	0.09	0.003%
54	NVVN (SNA) -	5.90	0.21%	Sainj HEP	0.04	0.002%
55	Sembcorp Energy	5.85	0.21%			
56	NREL-Dayapar	5.74	0.21%			
57	RENEW SURYA	5.53	0.20%			
58	Jhabua Power	5.31	0.19%			
59	JITPL	5.26	0.19%			
60	Farakka	5.20	0.19%			
61	Simhapuri Energy	5.18	0.19%			
62	ADANI	5.16	0.19%			
63	Adani Power	5.06	0.18%			
64	DVC	5.04	0.18%			
65	RENEW SURYA	4.88	0.18%			
66	Jindal Power Ltd.	4.86	0.17%			
67	Goa WR	4.79	0.17%			
68	Transition Energy	4.65	0.17%			
69	RENEW SURYA	4.57	0.16%			
70	Talcher Stg-2	4.35	0.16%			
71	IGSTPS JHAJJAR	4.30	0.15%			
72	Neyveli New	4.21	0.15%			
73	Maruti Clean Coal	4.10	0.15%			
74	Rihand-III	3.94	0.14%			
75	Barh STPS Stg - I	3.85	0.14%			
76	Bongaigaon	3.83	0.14%			
77	IL&FS	3.74	0.13%			
78	KSK Mahanadi	3.65	0.13%			
79	NTPC Kudgi	3.60	0.13%			
80	Onevolt Energy	3.60	0.13%			
81	Amplus Ages	3.25	0.12%			
82	Vindhyachal stg-2	3.21	0.12%			
83	Unchahar-IV	3.10	0.11%			
84	GMR Warora	3.10	0.11%			
85	Farakka Stg 3	2.97	0.11%			
86	Daman & Diu -	2.86	0.10%			
87	NTPC Gadarwara	2.82	0.10%			
88	DB Power	2.82	0.10%			
89	Amp Energy	2.82	0.10%			
90	Vindhyachal stg-1	2.77	0.10%			
91	Dadri Stg-2	2.74	0.10%			
92	Unchahar-II	2.69	0.10%			
93	Ramagundam Stg-	2.68	0.10%			
94	Singoli Bhagwati	2.62	0.09%			
95	Jindal Power	2.59	0.09%			
96	DGEN Mega	2.50	0.09%			
97	Mouda Stg-2	2.41	0.09%			
98	Grian Energy	2.36	0.08%			
99	Vindhyachal stg-4	2.32	0.08%			

100	RENEW SURYA	2.28	0.08%			
101	Sipat Stg-2	2.18	0.08%			
102	Mouda Stg-1	2.01	0.07%			
103	ADHUNIK	1.95	0.07%			
104	Vindhyachal stg-3	1.83	0.07%			
105	Nagaland	1.77	0.06%			
106	Simhadri Stg-2	1.77	0.06%			
107	NLC	1.76	0.06%			
108	RENEW SURYA	1.63	0.06%			
109	Korba	1.57	0.06%			
110	KBUNL(MTPS-II)	1.52	0.05%			
111	Unchahar-I	1.49	0.05%			
112	TPSL 200MW	1.48	0.05%			
113	AGBPP	1.46	0.05%			
114	ADANI SOLAR	1.35	0.05%			
115	Talcher	1.32	0.05%			
116	NTECL Vallur	1.30	0.05%			
117	Sipat Stg-1	1.28	0.05%			
118	Dadri TPS	1.17	0.04%			
119	NTPC Telangana	1.10	0.04%			
120	NLC TPS-II Stg-2	1.08	0.04%			
121	ADANI SOLAR	1.07	0.04%			
122	Unchahar-III	1.01	0.04%			
123	Karcham Wangtoo	0.97	0.03%			
124	Adept Renewable	0.96	0.03%			
125	Sainj HEP	0.94	0.03%			
126	NTPL	0.94	0.03%			
127	IND BARATH	0.92	0.03%			
128	Sorang HEP,	0.92	0.03%			
129	Vindhyachal stg-5	0.83	0.03%			
130	RENEW SURYA	0.81	0.03%			
131	Jindal Steel	0.79	0.03%			
132	Simhadri Stg-1	0.78	0.03%			
133	SKS Power	0.75	0.03%			
134	Chandigarh	0.73	0.03%			
135	Palatana	0.72	0.03%			
136	Adani Green	0.67	0.02%			
137	NTPP BRBCL	0.66	0.02%			
138	NLC TPS-II	0.62	0.02%			
139	Adani Green	0.62	0.02%			
140	NLC TPS-II Expn	0.59	0.02%			
141	Ostro Kannada	0.54	0.02%			
142	Ramagundam Stg-	0.48	0.02%			
143	NTPC North	0.46	0.02%			
144	Shree Cement	0.39	0.01%			
145	Korba Stg 3	0.34	0.01%			
146	RENEW SURYA	0.34	0.01%			
147	Darlipalli	0.33	0.01%			
148	ADANI SOLAR	0.33	0.01%			
149	AD Hydro	0.23	0.01%			
150	Lanco Budhil	0.20	0.01%			
151	RENEW SURYA	0.20	0.01%			

152	NSPCL Bhilai	0.16	0.01%			
153	Goa SR	0.14	0.005%			
154	ADANI SOLAR	0.14	0.005%			
155	Chuzachen	0.11	0.004%			
156	ADANI WIND	0.10	0.004%			
157	Jaypee Nigrie	0.09	0.003%			
158	NTPC Lara	0.08	0.003%			
159	ADANI	0.08	0.003%			
160	GMR Kamalanga	0.07	0.003%			
161	Adani Green	0.06	0.002%			
162	Adani Green	0.05	0.002%			
163	Pare Hydro Power	0.05	0.002%			
164	Doyang HPS,	0.05	0.002%			
165	Ranganadi Hydro	0.04	0.001%			
166	WIND FIVE	0.04	0.001%			
167	NTPC Simhadri 25	0.03	0.001%			
168	ADANI GREEN	0.02	0.001%			
169	AGTPP	0.01	0.0004%			
170	Meghalaya	0.01	0.0003%			
Total Volume of top 10		2,127.93	76.38%	Total Volume of top 10	1,772.92	63.64%
Total Volume in PXs		2,785.82		Total Volume in PXs	2,785.82	

Cross Border Electricity Transactions under Day Ahead Market (DAM) in IEX with Nepal and Bhutan during the month of March, 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	01-03-2024	10.00	-	7.90	-
2	02-03-2024	9.61	-	8.09	-
3	03-03-2024	9.98	-	8.23	-
4	04-03-2024	10.27	-	8.42	-
5	05-03-2024	10.33	-	7.68	-
6	06-03-2024	10.32	-	7.65	-
7	07-03-2024	10.33	-	11.13	-
8	08-03-2024	9.27	-	11.82	-
9	09-03-2024	9.43	-	10.97	-
10	10-03-2024	10.68	-	11.69	-
11	11-03-2024	9.72	-	12.10	-
12	12-03-2024	9.88	-	11.81	-
13	13-03-2024	11.26	-	11.03	-
14	14-03-2024	10.20	-	12.21	-
15	15-03-2024	10.76	-	12.00	-
16	16-03-2024	10.05	-	11.23	-
17	17-03-2024	11.63	-	12.00	-
18	18-03-2024	11.37	-	11.71	-
19	19-03-2024	11.56	-	12.25	-
20	20-03-2024	11.90	-	11.83	-
21	21-03-2024	11.87	-	11.63	-
22	22-03-2024	10.23	-	5.66	-
23	23-03-2024	8.82	-	5.36	-
24	24-03-2024	6.95	-	6.17	-
25	25-03-2024	4.68	-	7.58	-
26	26-03-2024	6.84	-	7.63	-
27	27-03-2024	4.68	-	5.76	-
28	28-03-2024	8.12	-	6.85	-
29	29-03-2024	8.37	-	7.74	-
30	30-03-2024	7.56	-	7.87	-
31	31-03-2024	4.66	-	7.91	-
Total		291.32	-	291.90	-
Grand Total		583.22			

-: No transaction took place

Note: Cross Border Transactions of Electricity of **583.22 MU (i.e. 291.32 MU bought by Nepal, 291.90 MU bought by Bhutan)** happened during March, 2024 in IEX, which is included under DAM Volume of March, 2024 in IEX. No Cross Border Import Transactions of Electricity happened with **Nepal and Bhutan** for the month of March, 2024 in IEX under DAM.

Cross Border Electricity Transactions under Real Time Market (RTM) in IEX with Nepal and Bhutan during the month of March, 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	01-03-2024	0.30	-	0.35	-
2	02-03-2024	-	-	-	-
3	03-03-2024	0.13	-	-	-
4	04-03-2024	-	-	-	-
5	05-03-2024	-	-	1.71	-
6	06-03-2024	-	0.24	2.23	-
7	07-03-2024	-	-	1.35	-
8	08-03-2024	0.53	-	0.03	-
9	09-03-2024	-	-	0.09	-
10	10-03-2024	0.35	-	0.94	-
11	11-03-2024	0.14	-	-	-
12	12-03-2024	0.11	-	-	-
13	13-03-2024	-	-	-	-
14	14-03-2024	-	-	0.25	-
15	15-03-2024	0.06	-	0.06	-
16	16-03-2024	0.35	-	0.60	-
17	17-03-2024	-	-	0.29	-
18	18-03-2024	0.13	-	-	-
19	19-03-2024	0.24	-	0.30	-
20	20-03-2024	-	0.06	1.15	-
21	21-03-2024	-	2.14	-	-
22	22-03-2024	-	0.16	-	-
23	23-03-2024	0.26	0.52	0.40	-
24	24-03-2024	0.25	-	0.79	-
25	25-03-2024	0.18	0.08	0.46	-
26	26-03-2024	-	2.02	-	-
27	27-03-2024	2.74	-	1.10	-
28	28-03-2024	0.04	-	3.34	-
29	29-03-2024	-	0.12	-	-
30	30-03-2024	0.63	-	-	-
31	31-03-2024	-	0.56	-	-
Total		6.42	5.90	15.43	-
Grand Total		27.78			

-: No transaction took place

Note: Cross Border Transactions of Electricity of 27.78 MU (i.e. 6.42 MU bought by Nepal, 5.90 MU sold by Nepal, 15.43 MU bought by Bhutan) happened during March, 2024 in IEX, which is included under RTM Volume of March, 2024 in IEX. No Cross Border Import Transactions of Electricity happened with **Bhutan** for the month of March, 2024 in IEX under RTM.

Analysis for change in trend of Final Scheduled Volume under DAM on 1st Sunday & 4th Monday of March, 2024 (i.e. 3rd & 25th March, 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 March, 2024, it is observed that first Sunday (03rd March, 2024), FSV showed increasing trend in comparison to first Saturday (02nd March, 2024), on fourth Monday (25th March, 2024), FSV showed decreasing trend in comparison to fourth Sunday (24th March, 2024).

- (i) On first Sunday (03rd March, 2024), although there was decrease in purchase on power exchange by some of the States in comparison to first Saturday (02nd March, 2024) by **13.09 MU** [i.e. Rajasthan (5.33 MU), Uttarakhand (3.42 MU), Telangana (0.89 MU), Daman & Diu - Dadra & Nagar Haveli (0.85 MU) and Uttar Pradesh (0.75 MU), etc.], there was also increase in purchase on power exchange by some of the States by **30.97 MU** [i.e. Gujarat (10.89 MU), Andhra Pradesh (5.13 MU), MB Power (3.70 MU), ArcelorMittal Nippon steel (ESIL) (2.46 MU) and Odisha (2.32 MU), etc.]. This resulted in an overall increase in FSV by **17.88 MU** on Sunday (03rd March, 2024) as compared to Saturday (02nd March, 2024).
- (ii) On fourth Monday (25th March, 2024), although there was increase in purchase on power exchange by some of the States in comparison to fourth Sunday (24th March, 2024) by **15.81 MU** [i.e. Telangana (12.51 MU), Druk Green Power Corporation Limited (DGPCL-Bhutan) (1.41 MU), Uttar Pradesh (0.73 MU), Tamil Nadu (0.33 MU) and Kerala (0.24 MU), etc.], there was also decrease in purchase on power exchange by some of the States by **58.99 MU** [i.e. Gujarat (33.09 MU), Uttarakhand (7.29 MU), Rajasthan (4.07 MU), Punjab (3.78 MU) and Andhra Pradesh (2.25 MU), etc.]. This resulted in an overall decrease in FSV by **43.18 MU** on Monday (25th March, 2024) as compared to Sunday (24th March, 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).