



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

सेवा में /To

1. Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi- 110001.
2. Secretary, Ministry of New & Renewable Energy, Atal Akshay Urja Bhawan, CGO Complex, Lodhi Road, New Delhi- 110003.
3. Secretary, CERC, 7th Floor, Tower B, World Trade Centre, Nauroji Nagar, New Delhi- 110029.

विषय: जून, 2024 माह की मार्केट मॉनिटरिंग रिपोर्ट।

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

महोदय/ Sir,

जून, 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 June, 2024 is enclosed herewith for kind information and perusal.

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

- i. जून, 2024 माह में देश में कुल 151,735 MU विद्युत का कारोबार किया गया, जिसमें से 74,383 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 June, 2024 a total of 151,735 MU of electricity was transacted in the country out of which 74,383 MU was transacted through ISTS, and the remaining through state controlled generating stations through

Intra State Transmissions System.

- ii. अल्पावधि मार्केट के अंतर्गत कुल 23,045 MU का कारोबार किया गया था, जिसमें से 11,952 MU पावर एक्सचेंजों के माध्यम से कारोबार किया गया और शेष द्विपक्षीय कारोबार और विचलन (deviations) के रूप में हुआ। इस प्रकार अल्पावधि कारोबार, जून, 2024 माह में ट्रेड की गई विद्युत की कुल मात्रा का 15.19 % था और 7.88 % पावर एक्सचेंजों के माध्यम से रहा। A total of 23,045 MU was transacted under Short Term Market, out of which 11,952 MU was transacted through Power Exchanges and remaining happened as bilateral transactions & deviations. Thus, the total short term trade in June, 2024 was 15.19 % of total volume of electricity traded in June, 2024 and 7.88 % was through Power Exchanges.
- iii. यदि हम अंतर्राज्यीय पारेषण प्रणाली (ISTS) के माध्यम से आपूर्ति की गई विद्युत के संबंध में इन कारोबारों की तुलना करते हैं, तो अल्पावधि कारोबार अंतर्राज्यीय पारेषण प्रणाली (ISTS) कारोबार का लगभग 30.98 % रहा, जिसमें से पावर एक्सचेंजों के माध्यम से कारोबार 16.07 % रहा। If we compare these transactions with respect to the electricity supplied through ISTS, the short term transactions constitutes about 30.98 % of ISTS transactions, out of which transaction through the power exchanges constitutes 16.07 %.

Signed by Arvind Kumar
Meena
Date: 09-08-2024 14:08:10

भवदीय/ Yours faithfully,

(विक्रम सिंह / Vikram Singh)

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

प्रतिलिपि/ Copy for information, through email, to:

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

Sector 16B, Noida- 201301.

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

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

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सत्यमेव जयते

मासिक मार्केट मॉनिटरिंग रिपोर्ट - जून, 2024

Monthly Market Monitoring Report

June, 2024



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

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**जून, 2024 की मासिक मार्केट
मॉनिटरिंग रिपोर्ट का सारांश**

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

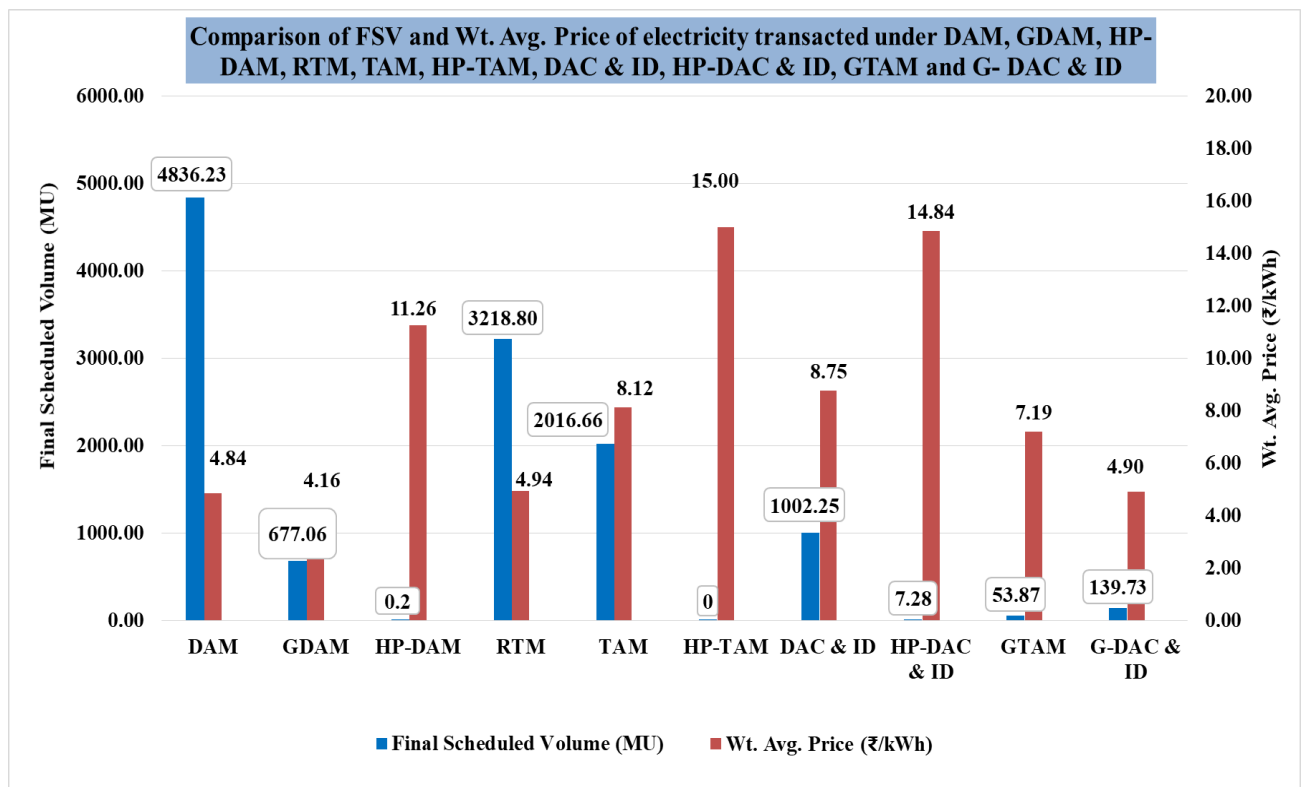
जून, 2024 माह के लिए सारांश Summary for Month: June, 2024

भारत में विद्युत एक्सचेंजों पर विद्युत के व्यापार का सारांश

Summary of Electricity Transactions on Power Exchanges in India

- जून, 2024 के दौरान विद्युत एक्सचेंजों (यानी आईईएक्स, पीएक्सआईएल और एचपीएक्स) के माध्यम से कुल **11,952 MU** विद्युत का कारोबार किया गया। विद्युत की यह मात्रा डिलीवरी की तारीख के आधार पर है और इसमें DAM, GDAM, HP-DAM, RTM, TAM, HP-TAM, DAC & ID, HP-DAC & ID, GTAM और G-DAC & ID मार्केट खंडों के माध्यम से कारोबार शामिल हैं।

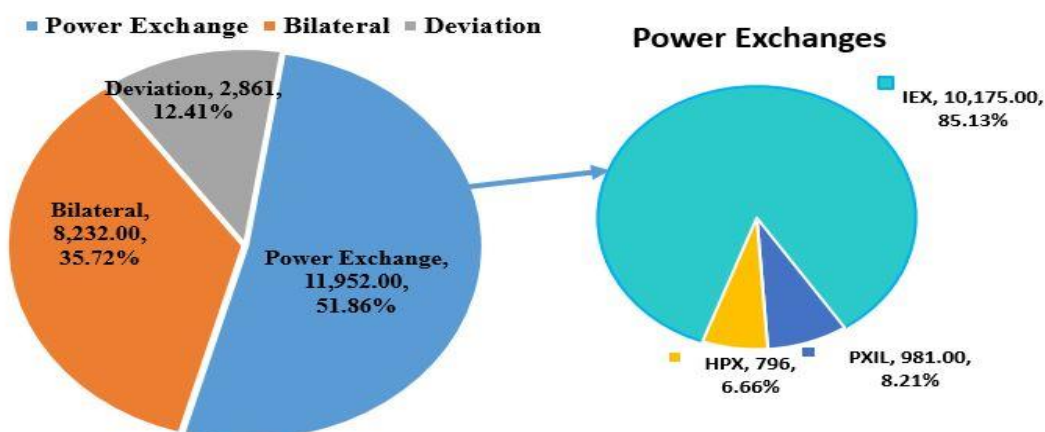
A total volume of **11,952 MU** electricity was transacted through power exchanges i.e. IEX, PXIL & HPX, during the month of June, 2024. This volume of electricity is on delivery date basis and includes transactions through DAM, GDAM, HP-DAM, RTM, TAM, HP-TAM, DAC & ID, HP-DAC & ID, GTAM and G-DAC & ID market segments.



- द्विपक्षीय व्यापार के तहत कुल **8,232 MU** विद्युत का कारोबार किया गया और **2,861 MU** को विचलन के रूप में लेनदेन किया गया। इस प्रकार कुल **23,045 MU** विद्युत का कारोबार अल्पावधि व्यापार के रूप में किया गया था। जून, 2024 के महीने में देश में कुल **151,735 MU** विद्युत की आपूर्ति की गई थी, इस प्रकार जून, 2024 माह में कारोबार की गई विद्युत की कुल मात्रा में अल्पावधि बाजार का हिस्सा **15.19 %** था।

Under the Bilateral trade, a total of **8,232 MU** of electricity was transacted and **2,861 MU** was transacted as deviation from schedule. Thus, a total of **23,045 MU** of electricity was transacted as short term trade (Power Exchange + Bilateral trade + deviation from schedule). In June, 2024, a total of **151,735 MU** of electricity was supplied in the country, thus, the share of short term market in the total volume of electricity supplied in June, 2024 was **15.19 %**.

Short Term Market for June, 2024



- जून, 2024 के दौरान संचरण जाम की कुल मात्रा **358.30 MU** थी, जो की विद्युत एक्सचेंजों में कारोबार की गई विद्युत की कुल मात्रा का केवल **3.00 %** है और जून, 2024 के महीने के दौरान आपूर्ति की गई कुल ऊर्जा का **0.24 %** है।

The total volume affected by the transmission congestion during the month of June, 2024 was **358.30 MU** which is only **3.00 %** of the total volume of electricity transacted in the power exchanges and **0.24 %** of total energy supplied during the month of June, 2024.

DAM में **12** दिन अर्थात् दिनांक 16 एवं 20 से 30 जून, 2024, GDAM में **10** दिन अर्थात् दिनांक 21 से 30 जून, 2024, RTM में **22** दिन अर्थात् दिनांक 2, 9 से 16 एवं 18 से 30 जून, 2024, TAM में **4** दिन अर्थात् दिनांक 8 एवं 20 से 22 जून, 2024, DAC & ID में **12** दिन अर्थात् दिनांक 9, 11, 12, 14, 15, 17, 18 से 21, 25 एवं 26 जून, 2024 और G-DAC & ID में **3** दिन अर्थात् दिनांक 19 से 21 जून, 2024 को संचरण जाम देखा गया। जबकि HP-DAM, HP-TAM, HP-DAC & ID और GTAM में कोई संचरण जाम नहीं देखा गया। जून, 2024 माह के महीने में रिपोर्ट की गई वास्तविक समय में विद्युत कटौती की कुल मात्रा केवल **140.16 MU** थी।

Transmission congestion was observed in DAM on **12** days i.e. 16th & 20th to 30th June, 2024, in GDAM on **10** days i.e. 21st to 30th June, 2024, in RTM on **22** days i.e. 2nd, 9th to 16th & 18th to 30th June, 2024, in TAM on **4** days i.e. 8th & 20th to 22nd June, 2024 in DAC & ID on **12** days i.e. 9th, 11th, 12th, 14th, 15th, 17th, 18th to 21st, 25th & 26th June, 2024 and in G-DAC & ID on **3** days i.e. 19th to 21st June, 2024. Whereas, there was no impact of congestion in HP-DAM, HP-TAM, HP-DAC & ID and GTAM. The total volume of real time curtailment reported in the month of June, 2024 was only **140.16 MU**.

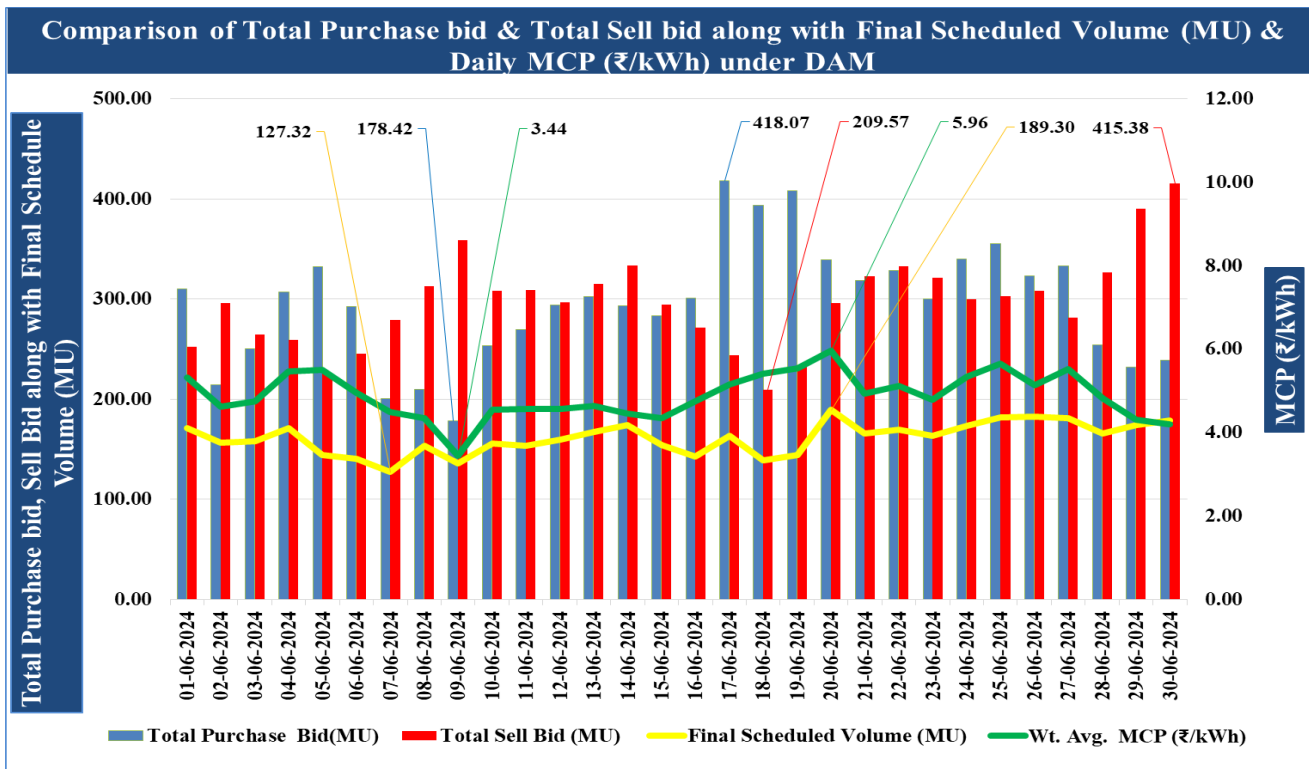
- जून, 2024 माह के दौरान अंतर्राज्यीय पारेषण प्रणाली (ISTS) में निर्धारित अनुसूचित विद्युत की कुल मात्रा **74,383 MU** थी। जून, 2024 के महीने में अल्पावधि बाजार में विद्युत का लेन-देन अंतर्राज्यीय पारेषण प्रणाली (ISTS) के माध्यम से अनुसूचित की गई कुल विद्युत की मात्रा का **30.98 %** रहा।

The total volume of electricity scheduled through ISTS during the month of June, 2024 was **74,383 MU**. The total volume of electricity transacted in the short term market was **30.98 %** of total volume schedule at ISTS in June, 2024.

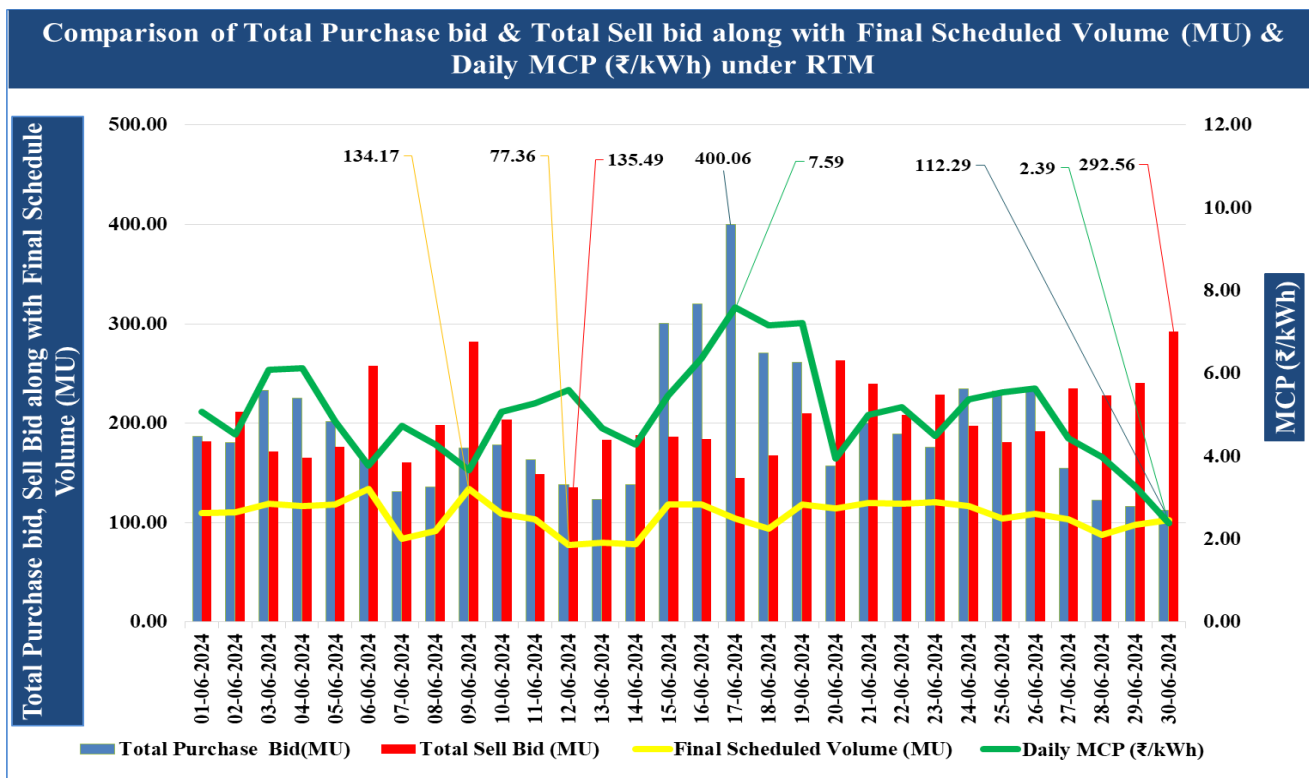
- जून, 2024 माह के दौरान DAM और RTM में विद्युत की खरीद और बिक्री बोलियों, अंतिम अनुसूचित मात्रा और दैनिक औसत MCP की भिन्नता निम्नलिखित चित्रों में दर्शाई गई है:

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

DAM Volume



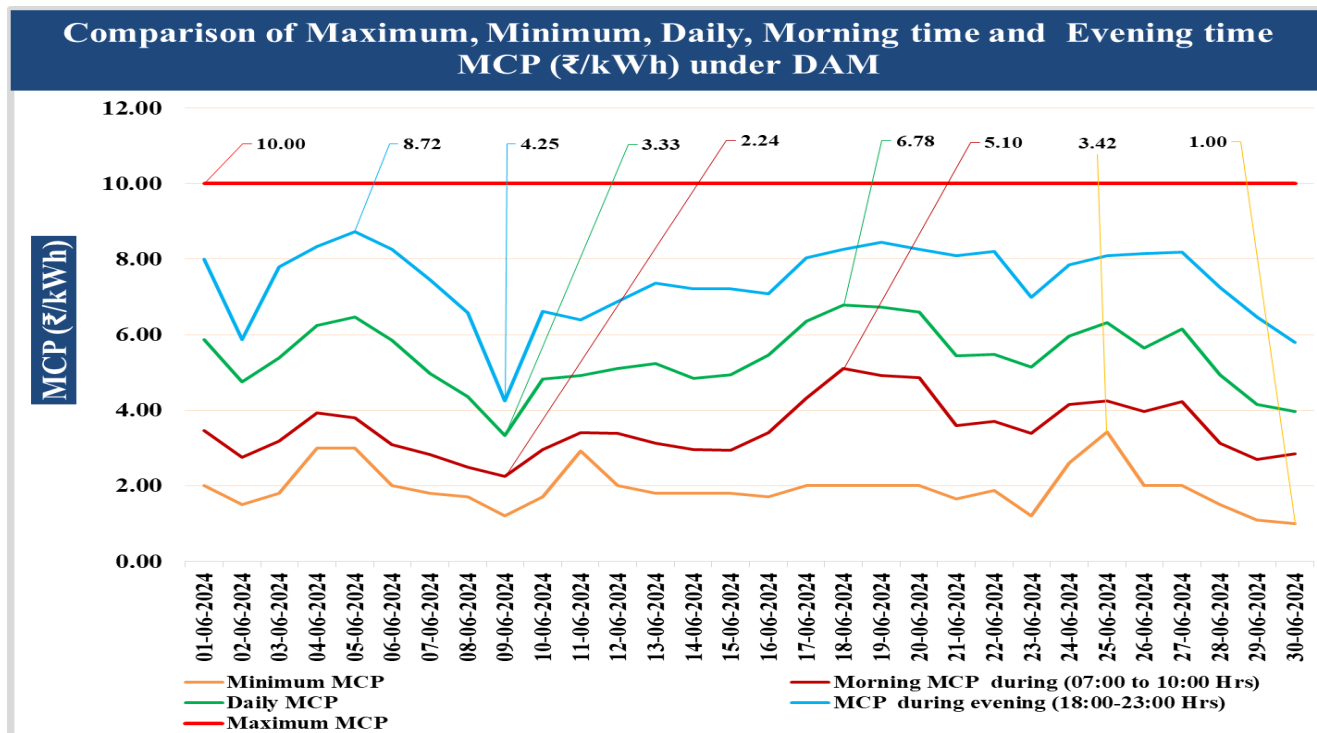
RTM Volume



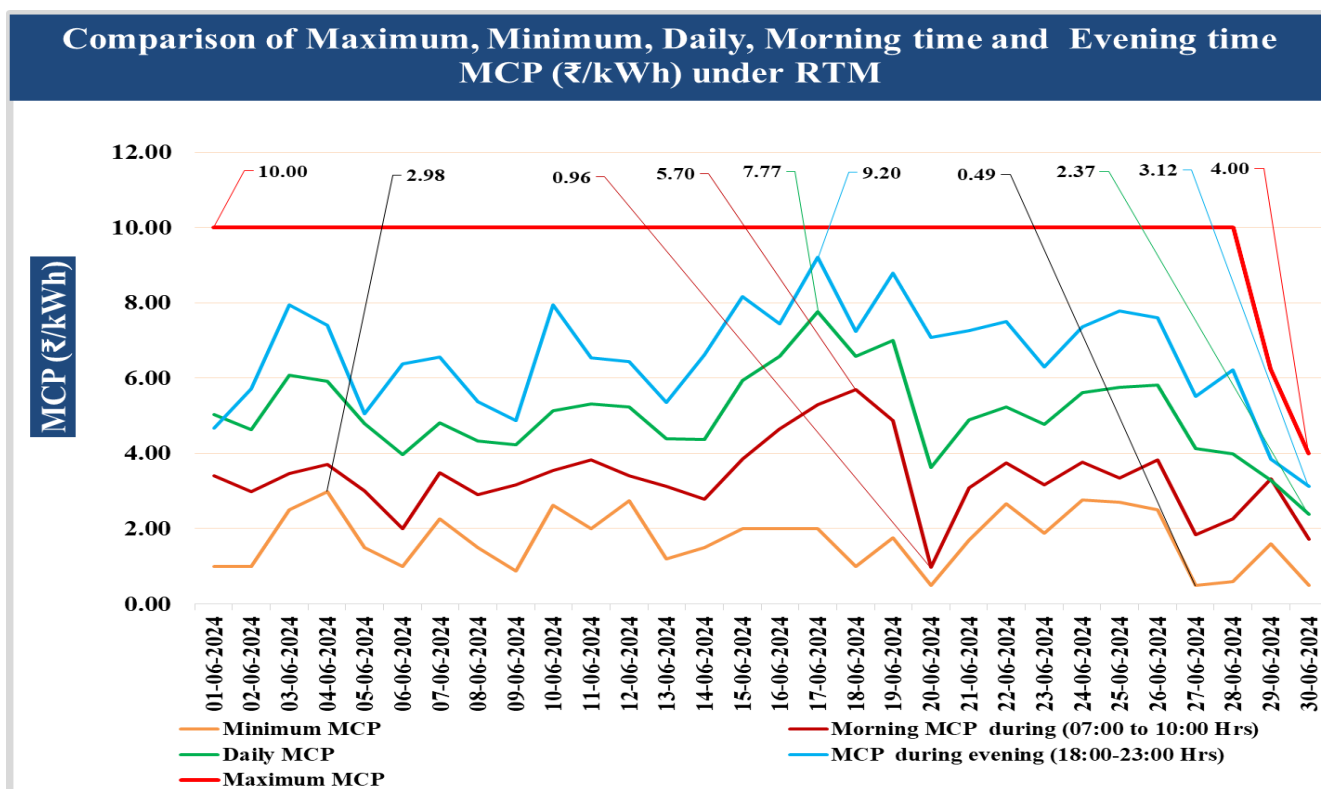
- जून, 2024 माह के दौरान DAM और RTM में अधिकतम, न्यूनतम, दैनिक, सुबह और शाम के समय MCP की भिन्नता निम्नलिखित चित्रों में दिखाई गई है:

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

DAM Prices



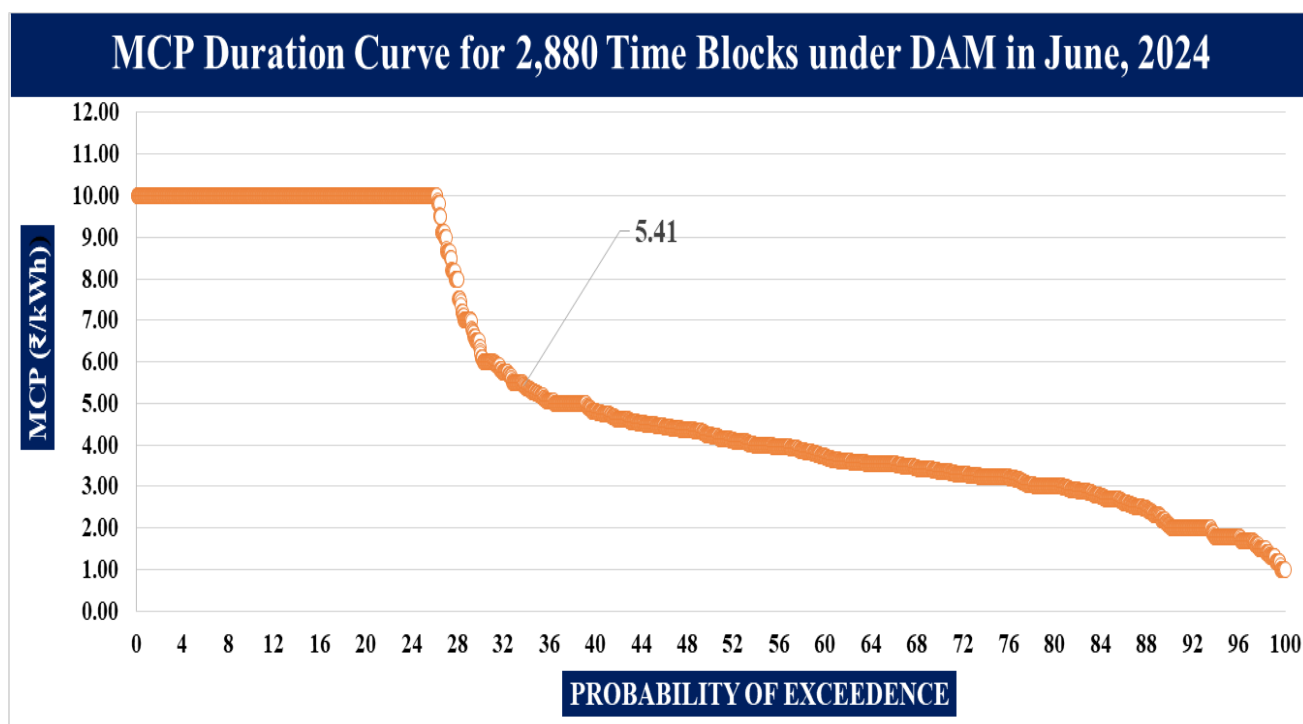
RTM Prices



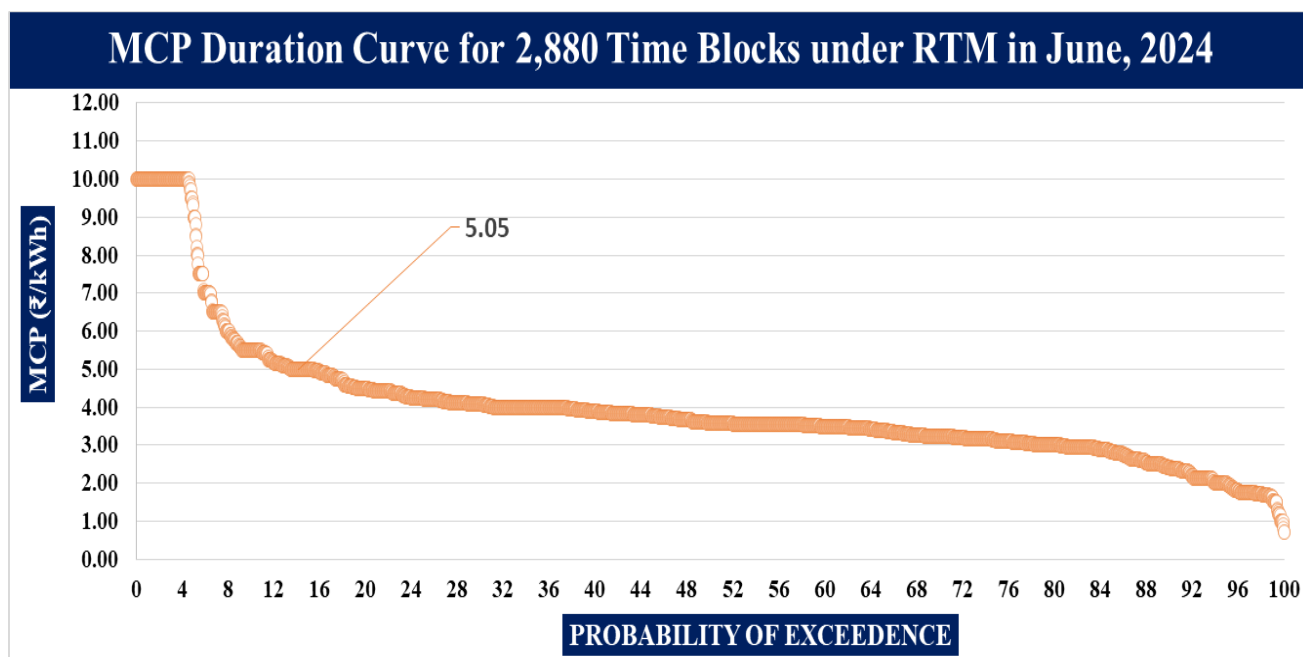
- जून, 2024 के महीने के दौरान DAM और RTM के तहत समय ब्लॉकवार MCP अवधि वक्र निम्नलिखित चित्रों में में दिखाए गए हैं:

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

DAM MCP duration curve



RTM MCP duration curve



MARKET MONITORING REPORT DETAILS

Electricity Transactions on Power Exchanges in India

1. Day Ahead Market (DAM)

The volume of electricity transacted under DAM was 4,836.23 MU at a Wt. Avg. Price of ₹ 4.84/kWh in June, 2024.

- 1.1.** The total volume of electricity transacted on the power exchanges, viz., IEX, HPX and PXIL in the Day Ahead Market (DAM) in June, 2024 was **4,836.23 MU**. The total energy supplied in the country during the month of June, 2024 was **151,735 MU**. Thus, the volume of electricity transacted on the power exchanges under DAM during June, 2024 was 3.19 % of the total energy supplied in the country. Comparing with the total volume of electricity transacted under DAM during last month May, 2024 i.e. **4,315.68 MU** which was 2.78% of the total energy supplied (**155,157 MU**) in the country during May, 2024. Similarly, the total volume of electricity transacted under DAM during previous year i.e. June, 2023, was **4,123.37 MU** which was 2.94 % of the total energy supplied (**140,276 MU**) in the country during June, 2023.
- 1.2.** The DAM volume for June, 2024 in IEX is inclusive of Cross Border Transactions of Electricity with Nepal and Bhutan (details given at **Annexure XII**), which was **149.09 MU** (i.e. 37.08 MU bought by Nepal, 100.83 sold by Nepal, 11.18 MU sold by Bhutan).
- 1.3.** The Average Market Clearing Price (MCP) on IEX during the month of June, 2024 was ₹ **4.84/kWh**, which shows an increase of 1.68 % & decrease of 6.20 % when compared with Wt. Avg. MCP's for the month of May, 2024 and June, 2023, which were ₹ **4.76/kWh** and ₹ **5.16/kWh**, respectively. On PXIL & HPX, no transaction of electricity took place during June, 2024.
- 1.4.** The Comparison of Final Scheduled Volume (FSV) and Wt. Avg. Price of IEX, PXIL and HPX under DAM for June, 2024 vs May, 2024 and June, 2023 is shown below as **Figure-1, Figure-2 & Figure-3**:

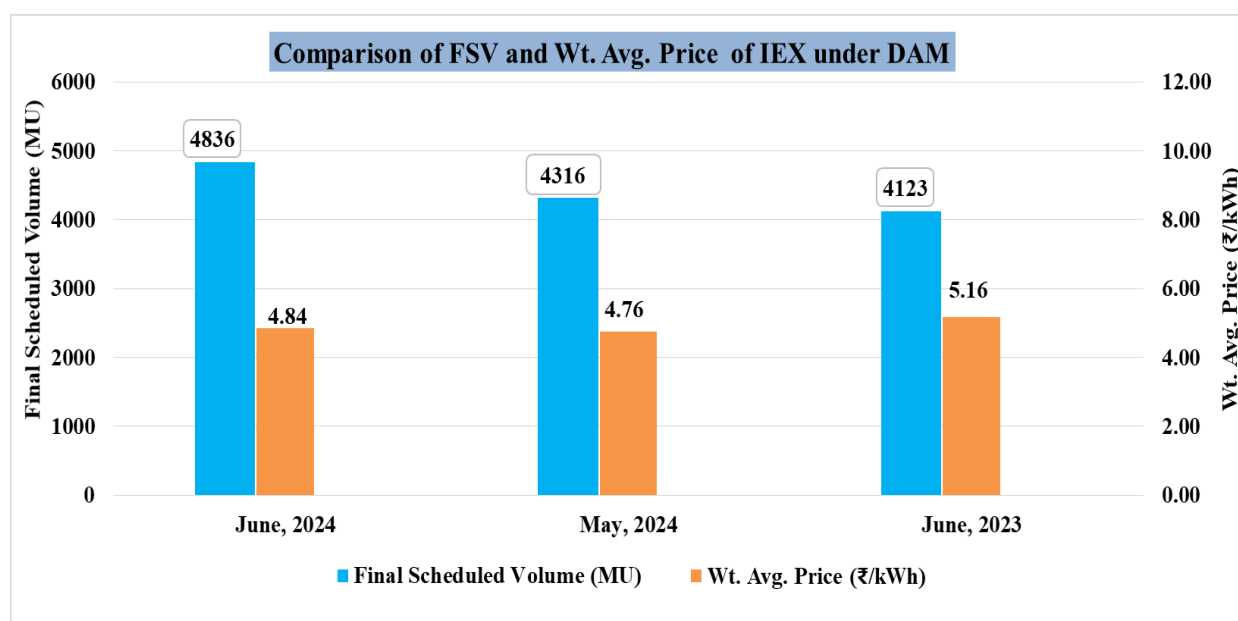


Figure-1

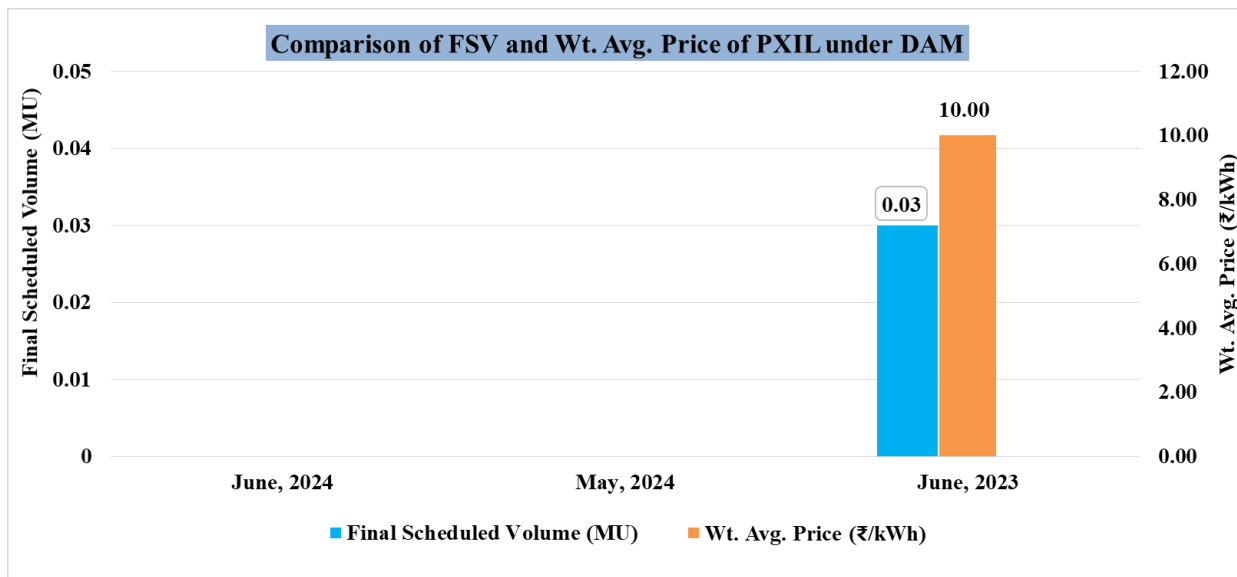


Figure-2

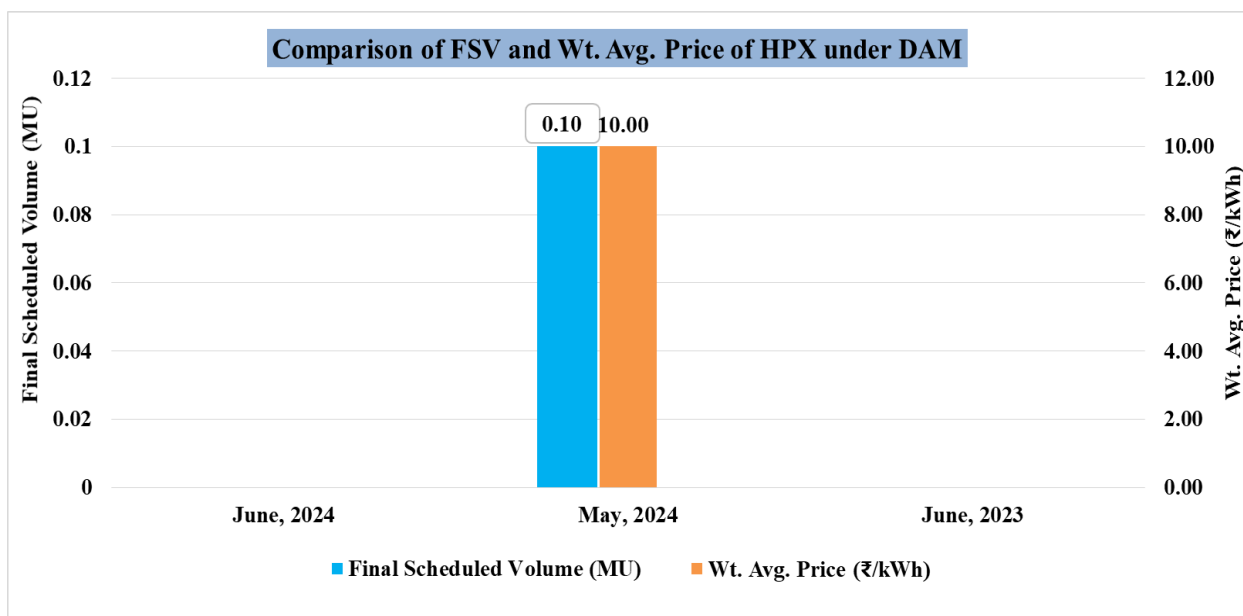


Figure-3

- 1.5.** The maximum Area Clearing Price (ACP) of ₹ 10.00/kWh in IEX was observed in all 13 regions during 840 time blocks from 1st to 30th June, 2024. Further, in PXIL & HPX, no transaction of electricity took place during June, 2024.
- 1.6.** The minimum ACP of ₹ 1.00/kWh in IEX was observed in 13 regions during the time block 13:00 - 13:15 Hrs on 13th June, 2024. As there was congestion in transmission system, the MCP for this time-block was also ₹ 1.00/kWh. Further, in PXIL & HPX, no transaction of electricity took place during June, 2024.

2. Real Time Market (RTM)

The volume of electricity transacted under RTM was 3,218.80MU at a Wt. Avg. Price of ₹ 4.94/kWh in June, 2024.

- 2.1. The total volume of electricity transacted on the power exchanges under Real Time Market in June, 2024 was **3,218.80 MU**, out of which **3,218.40 MU** (99.99 %) was transacted in IEX, **0.40 MU** (0.01 %) was transacted in PXIL and no electricity transaction took place in HPX.
- 2.2. The Comparison of Final Scheduled Volume (FSV) and Wt. Avg. Price of IEX, PXIL and HPX under RTM for June, 2024 vs May, 2024 and June, 2023 is shown below as **Figure-4, Figure-5 & Figure-6**:

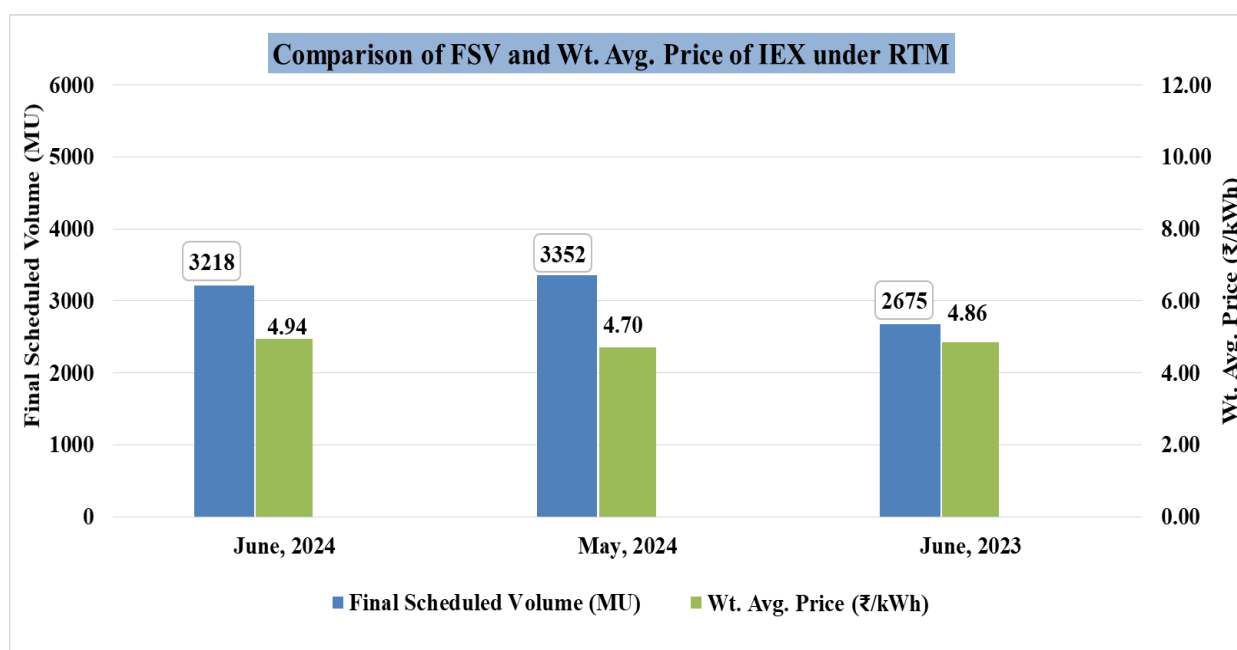


Figure-4

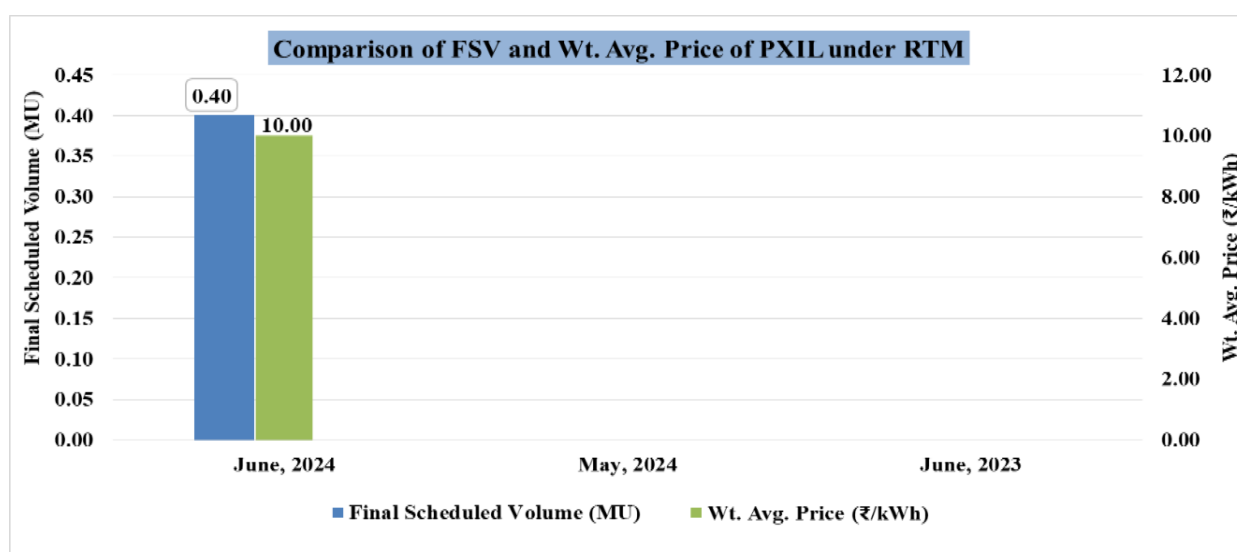


Figure-5

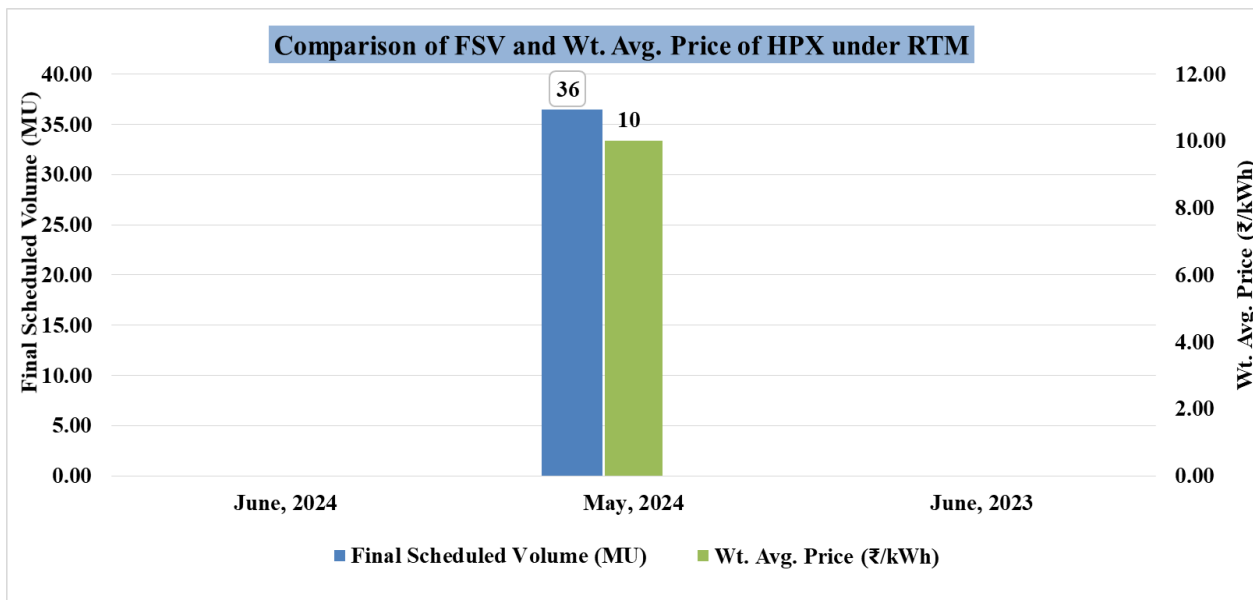


Figure-6

2.3. The RTM volume for June, 2024 in IEX is inclusive of Cross Border Transactions of Electricity with Nepal and Bhutan (details given at **Annexure XIII**), which was 53.57 MU (i.e. 26.92 MU bought by Nepal, 23.23 MU sold by Nepal, 3.42 MU bought by Bhutan).

3. Green Day Ahead Market (GDAM)

The volume of electricity transacted under GDAM was 677.06 MU at a Wt. Avg. Price of ₹ 4.16/kWh in June, 2024.

3.1. The volume of electricity transacted under GDAM in June, 2024 was **677.06 MU** (414.53 MU in Solar, **250.05 MU** in Non-Solar and **12.48 MU** in Hydro) in IEX at a Wt. Avg. MCP of ₹ 4.16/kWh and no transaction took place in PXIL & HPX under GDAM.

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

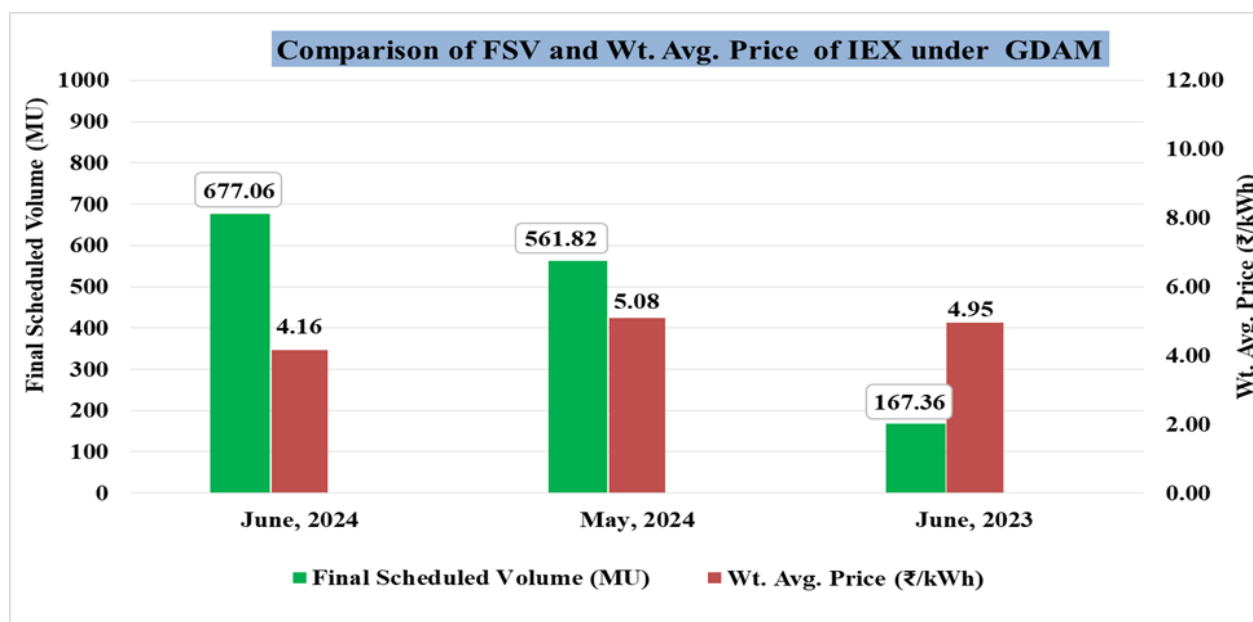


Figure-7

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

3.4. The **top 10 sellers** on the power exchanges under Green Day Ahead Market (GDAM) in June, 2024 were **ADANI RENEWABLE ENERGY HOLDING FOUR LIMITED, Andhra Pradesh, Maharashtra, Adani Green Energy Twenty Five B Limited_infirm, Karnataka, RENEW SURYA OJAS PRIVATE LIMITED-Wind, Himachal Pradesh, Madhya Pradesh, ADANI SOLAR ENERGY RJ TWO PRIVATE LIMITED and Uttar Pradesh**, which constituted **58.54 %** of the market volume.

3.5. The **top 10 buyers** on the power exchanges under Green Day Ahead Market (GDAM) in June, 2024 were **Punjab, Maharashtra, DVC, Jharkhand, Odisha, ArcelorMittal Nippon steel (ESIL), Tamil Nadu, Uttar Pradesh, Karnataka and Railways** which constituted **91.09 %** of the market volume.

4. Term Ahead Market (TAM)

The volume of electricity transacted under TAM was 2,016.66 MU at a Wt. Avg. Price of ₹ 8.12/kWh in June, 2024

4.1. The total volume of electricity transacted on the power exchanges on delivery date basis under Term Ahead Market in June, 2024, May, 2024 and June, 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)
June, 2024	2,016.66	1054.97 (52.31%)	564.87 (28.01 %)	396.82 (19.68 %)
May, 2024	2,880.16	911.93 (31.66 %)	1003.55 (34.84 %)	964.68 (33.49 %)
June, 2023	590.53	322.49 (54.61 %)	172.80 (29.26 %)	95.24 (16.13 %)

4.2. In the month of June, 2024, the transaction of electricity in PXIL in **High Price Term Ahead Market (HP-TAM)** under Daily-Anyday contract was **0.35 MU** at an average MCP of ₹ **15.00/kWh** whereas no transaction took place in IEX & HPX under HP-TAM.

4.3. With respect to the total energy supplied during the month of June, 2024 in the country, the volume of electricity traded on the power exchanges under TAM on delivery date basis represents **1.33 %** of the total energy supplied. The same was **1.86 %** in May, 2024 and **0.42 %** in June, 2023.

4.4. In June, 2024, there was transmission congestion of **10.07 MU** under TAM, out of which 1.99 MU in IEX, 8.08 MU in PXIL and no congestion in HPX.

4.5. There was real time curtailment of **136.02 MU** under TAM, out of which 101.30 MU in IEX, 24.45 MU in PXIL and 10.27 MU in HPX.

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

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

Exchange	Period	Final Scheduled Volume (MU)				
		Daily or Any Day	Weekly	Monthly	Anyday Single Side	Total
IEX	June, 2024	389.62	-	348.68	316.67	1054.97
	May, 2024	587.91	-	196.55	127.47	911.93
	%Change (Month over Month)	-33.73	NA	77.40	148.43	15.69
	June, 2023	75.26	-	-	247.23	322.49
	%Change (Year over Year)	417.70	NA	NA	28.09	227.13
PXIL	June, 2024	310.86	-	197.70	56.31	564.87
	May, 2024	344.79	-	658.76	-	1003.55
	%Change (Month over Month)	-9.84	NA	-69.99	NA	-43.71
	June, 2023	-	-	-	172.80	172.80
	%Change (Year over Year)	NA	NA	NA	-67.41	226.89
HPX	June, 2024	196.78	-	86.39	113.65	396.82

Exchange	Period	Final Scheduled Volume (MU)				
		Daily or Any Day	Weekly	Monthly	Anyday Single Side	Total
	May, 2024	700.28	-	234.87	29.53	964.68
	%Change (Month over Month)	-71.90	NA	-63.22	284.86	-58.87
	June, 2023	11.72	-	-	83.52	95.24
	%Change (Year over Year)	1579.01	NA	NA	36.08	316.65

- : No transaction took place

NA: Not Applicable

Table: 1A

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

Exchange	Period	Wt. Average MCP (₹/kWh)			
		Daily or Any Day	Weekly	Monthly	Anyday Single Side
IEX	June, 2024	8.26	-	6.77	8.33
	May, 2024	8.39	-	7.57	8.01
	%Change (Month over Month)	-1.55	NA	-10.57	4.00
	June, 2023	6.29	-	-	6.52
	%Change Year over Year)	31.32	NA	NA	27.76
PXIL	June, 2024	8.16	-	6.93	9.95
	May, 2024	8.50	-	9.01	-
	%Change (Month over Month)	-4.00	NA	-23.09	NA
	June, 2023	-	-	-	5.80
	%Change (Year over Year)	NA	NA	NA	71.55
HPX	June, 2024	9.95	-	6.94	9.95
	May, 2024	9.11	-	8.97	9.56
	%Change (Month over Month)	9.22	NA	-22.63	4.08
	June, 2023	6.80	-	-	6.22
	%Change Year over Year)	46.32	NA	NA	59.97

-: No transaction took place

NA: Not Applicable

Table: 1B

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

The volume of electricity transacted under DAC & ID was 1,002.25 MU at a Wt. Avg. Price of ₹ 8.75/kWh in June, 2024.

- 5.1. The volume of electricity transacted on IEX, PXIL and HPX under DAC & ID on delivery date basis during June, 2024 were **324.86 MU, 398.11 MU and 279.28 MU**, respectively.
- 5.2. In the month of June, 2024, the transaction of electricity in PXIL in **High Price Day Ahead Contingency & Intra Day (HP- DAC & ID)** under Intra Day contract was **5.35 MU** at an average MCP of ₹ 14.99/kWh, while in HPX under DAC contract was **0.20 MU** at an average MCP of ₹ 14.50/kWh and under ID contract was **1.83 MU** at an average MCP of ₹ 14.43/kWh whereas no transaction took place in IEX under HP- DAC & ID.
- 5.3. In June, 2024, there was transmission congestion **49.09 MU** under DAC & ID. Out of which **25.53 MU** was in IEX, **13.87 MU** in PXIL and **9.69 MU** in HPX.
- 5.4. In June, 2024, there was real time curtailment of **4.14 MU** under DAC & ID. Out of which **2.80 MU** was in IEX, **0.18 MU** in PXIL and **1.16 MU** in HPX.
- 5.5. The total volume of electricity transacted under DAC & ID under Day Ahead Contingency & Intra Day contracts during June, 2024 and its comparison with May, 2024 and June, 2023 on delivery date basis are shown in Tables- 2A & 2B:

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

Exchange	Period	Final Scheduled Volume (MU)		
		Day Ahead Contingency	Intra Day	Total
IEX	June, 2024	297.75	27.11	324.86
	May, 2024	262.63	45.16	307.79
	%Change (Month over Month)	13.37	-39.97	5.55
	June, 2023	776.15	18.98	795.13
	%Change (Year over Year)	-61.64	42.83	-59.14
PXIL	June, 2024	361.75	36.36	398.11
	May, 2024	457.00	46.84	503.84
	%Change (Month over Month)	-20.84	-22.37	-20.98
	June, 2023	568.59	20.27	588.86
	%Change (Year over Year)	-36.38	79.38	-32.39
HPX	June, 2024	265.71	13.57	279.28
	May, 2024	331.61	48.81	380.42
	%Change (Month over Month)	-19.87	-72.20	-26.59
	June, 2023	667.55	12.08	679.63

Exchange	Period	Final Scheduled Volume (MU)		
		Day Ahead Contingency	Intra Day	Total
	%Change (Year over Year)	-60.20	12.33	-58.91

- : No transaction took place

NA: Not Applicable

Table: 2A

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

Exchange	Period	Wt. Average MCP (₹/kWh)	
		Day Ahead Contingency	Intra Day
IEX	June, 2024	8.00	9.93
	May, 2024	8.40	9.84
	%Change (Month over Month)	-4.76	0.91
	June, 2023	6.16	9.76
	%Change Year over Year)	29.87	1.74
PXIL	June, 2024	8.39	9.67
	May, 2024	7.92	9.77
	%Change (Month over Month)	5.93	-1.02
	June, 2023	6.77	9.41
	%Change (Year over Year)	23.93	2.76
HPX	June, 2024	9.77	10.00
	May, 2024	9.83	9.98
	%Change (Month over Month)	-0.61	0.20
	June, 2023	6.68	9.75
	%Change Year over Year)	46.26	2.56

- : No transaction took place

NA: Not Applicable

Table: 2B

6. Green Term Ahead Market (GTAM)

The volume of electricity transacted under GTAM was 53.87 MU at a Wt. Avg. Price of ₹ 7.19/kWh in June, 2024.

The total volume of electricity transacted in the PXs under GTAM on delivery date basis was **53.87 (11.92 MU in Solar, 25.90 MU in Non-Solar and 16.05 MU in Hydro)**. The Comparison of Final Scheduled Volume (FSV) and Wt. Avg. Price of IEX, PXIL and HPX under GTAM for June, 2024 is shown below as **Figure-8, Figure-9, Figure-10 and Figure-11:**

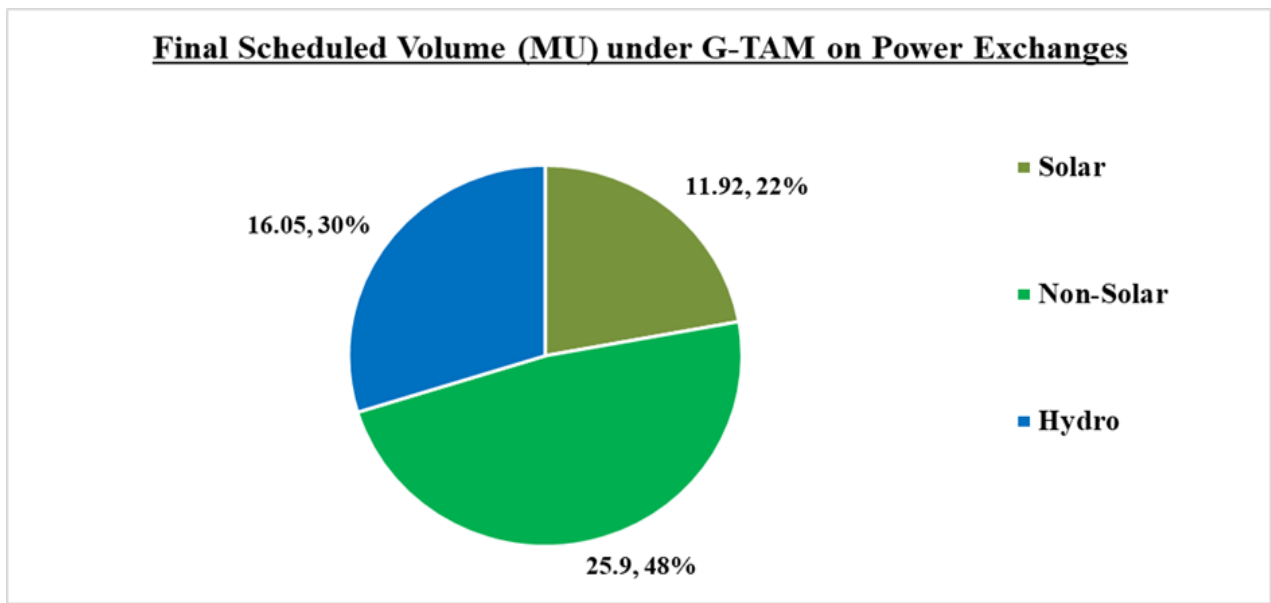


Figure-8

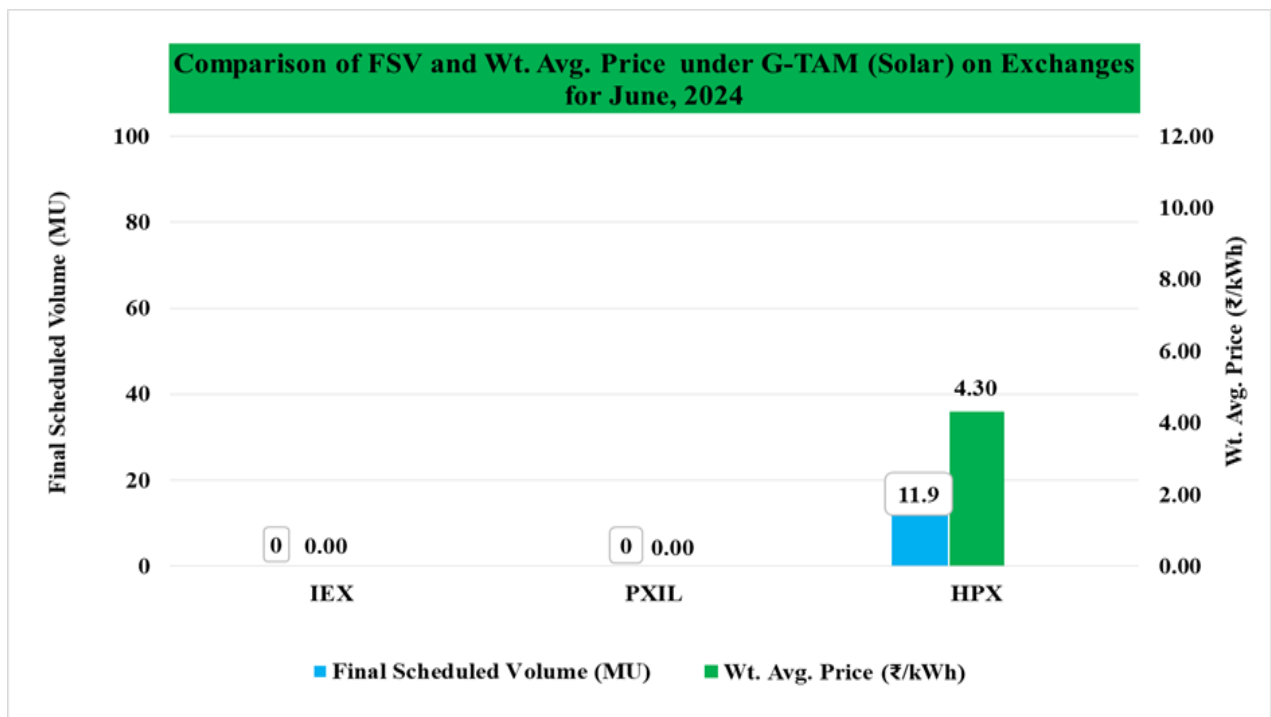


Figure-9

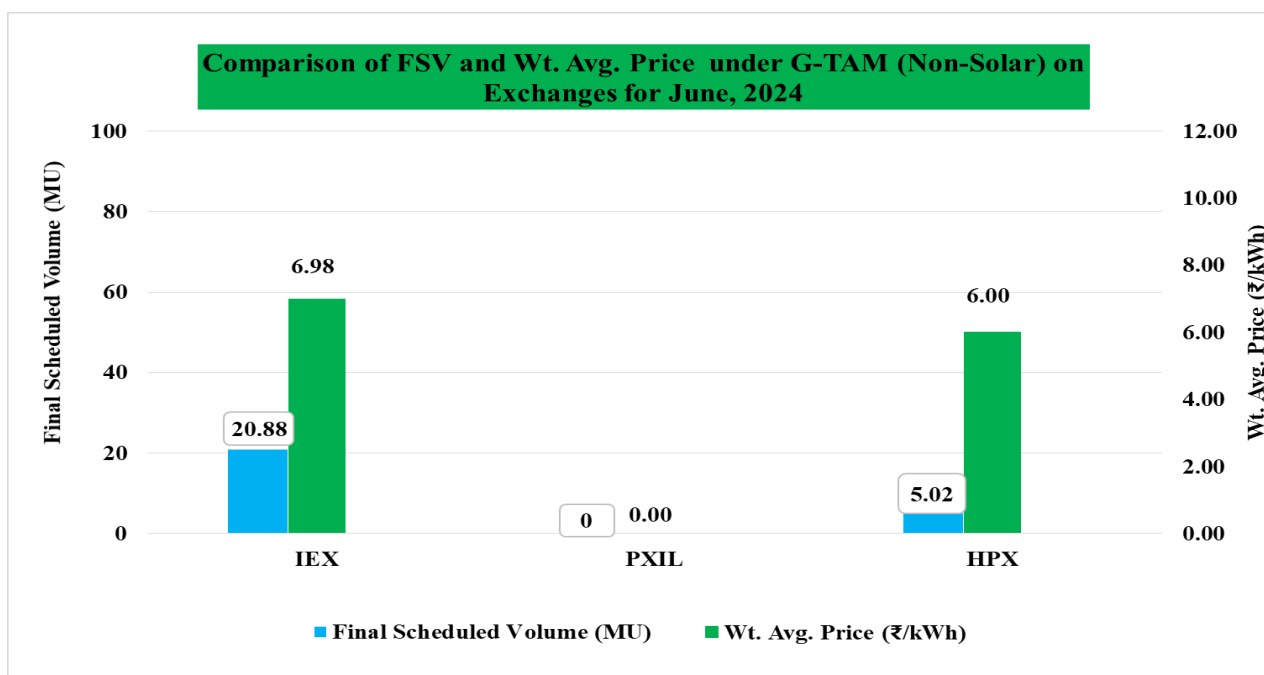


Figure-10

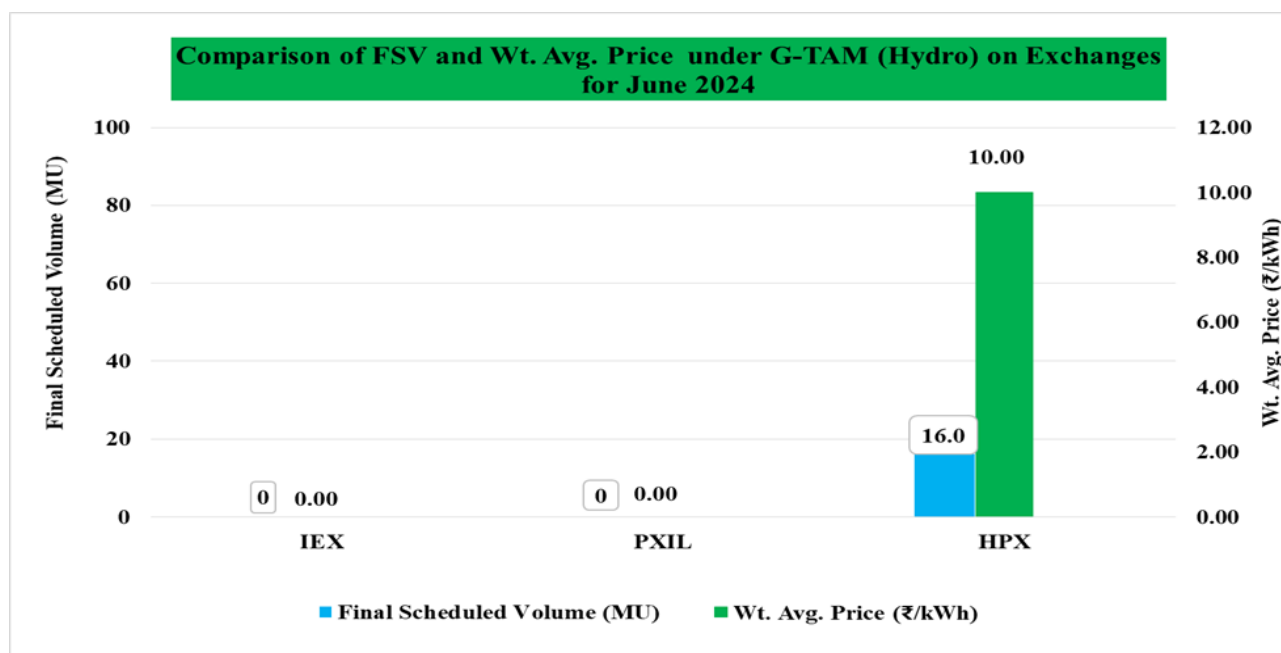


Figure-11

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

The volume of electricity transacted under G-DAC & ID was 139.73 MU at a Wt. Avg. Price of ₹ 4.90/kWh in June, 2024.

The total volume of electricity transacted in the IEX, PXIL & HPX under G-DAC & ID on delivery date basis was **139.73 MU** (42.09 MU in Solar, 68.34 MU in Non-Solar and 29.30 MU in Hydro), respectively. The Comparison of Final Scheduled Volume (FSV) and Wt. Avg. Price of IEX, PXIL and HPX under G-DAC & ID for June, 2024 is shown below as **Figure-12, Figure-13, Figure-14 and Figure-15:**

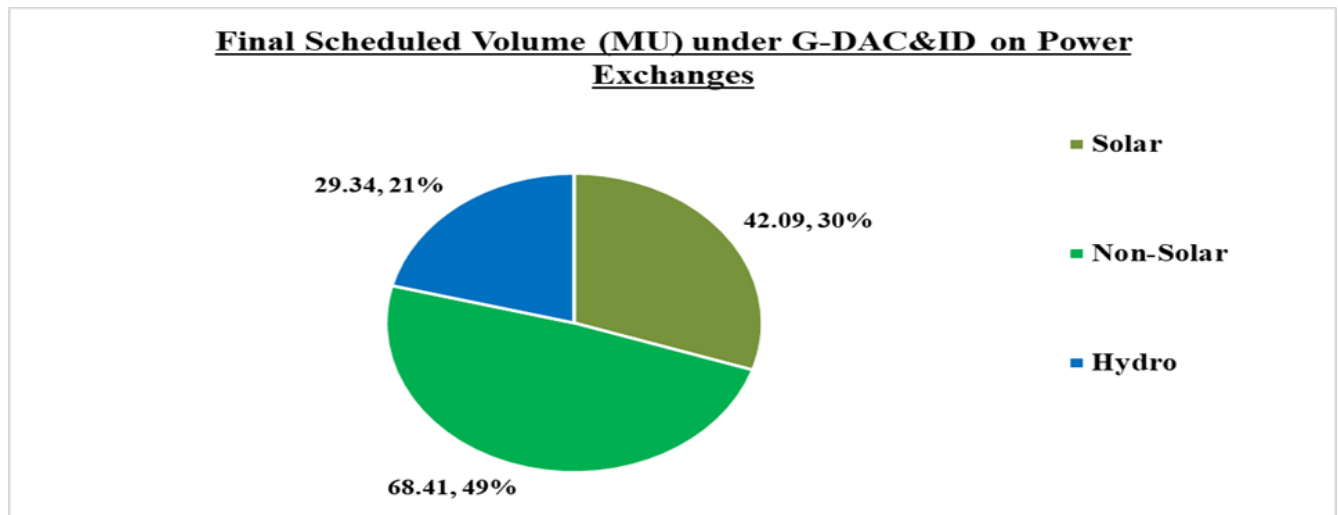


Figure-12

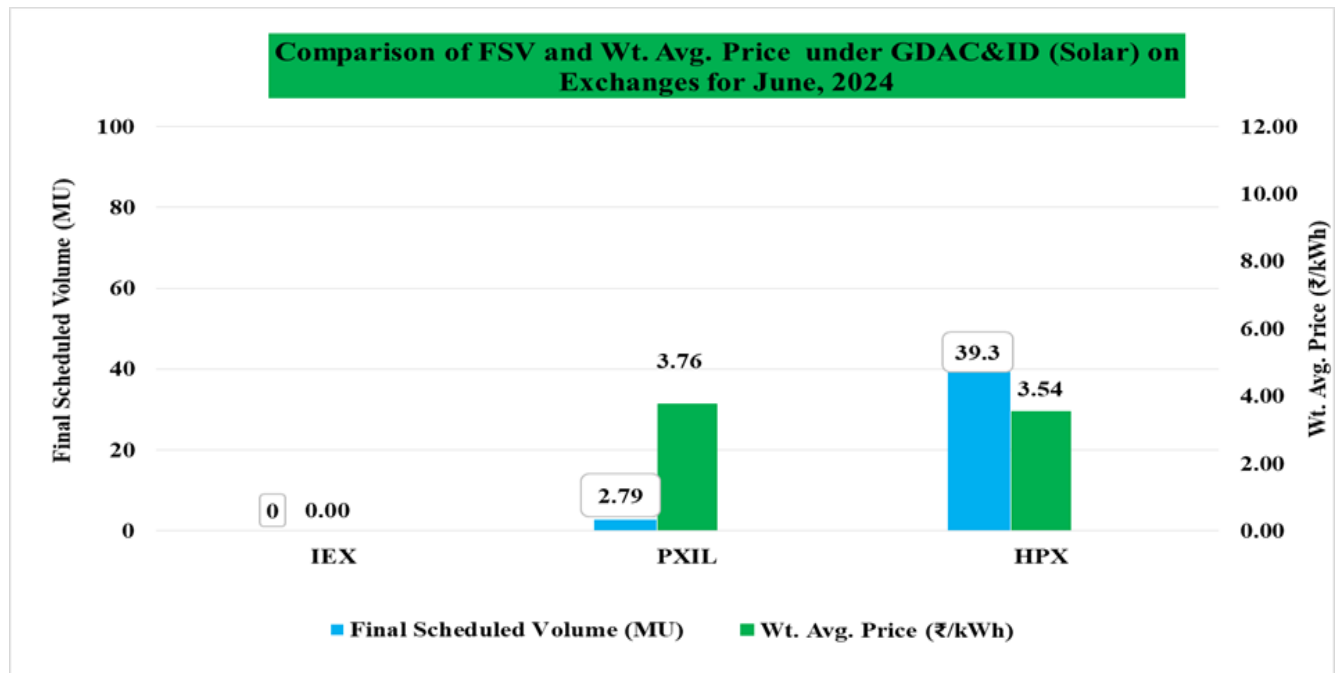


Figure-13

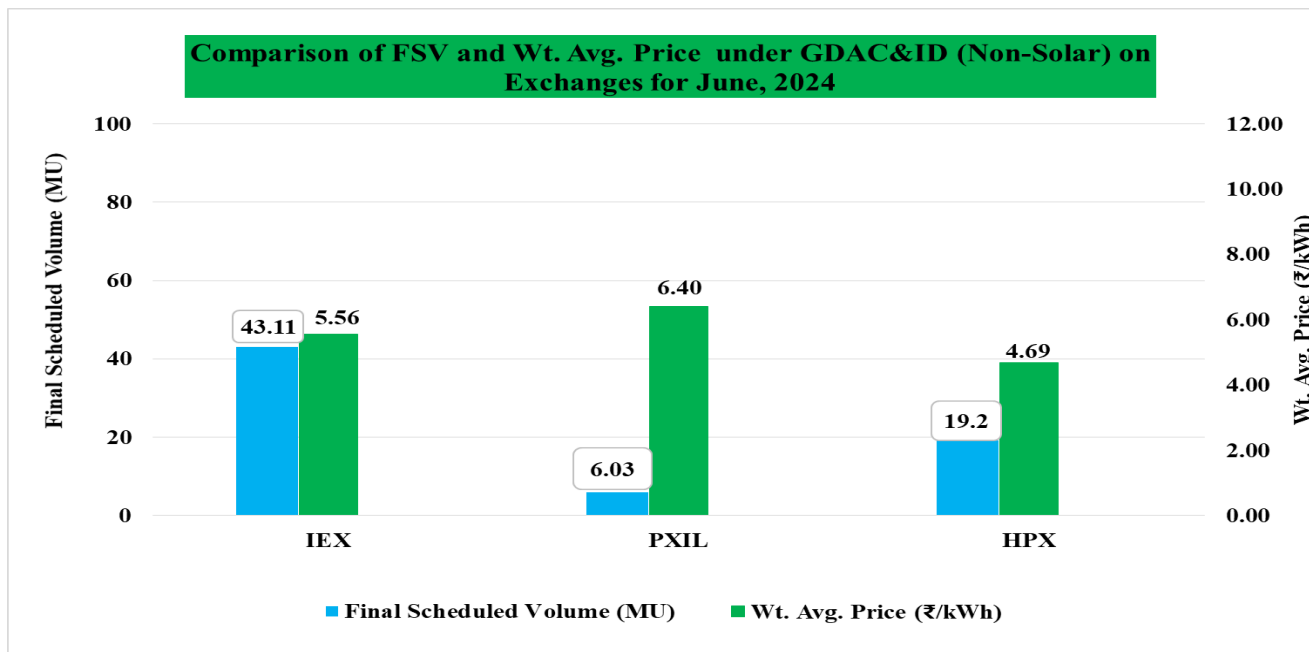


Figure-14

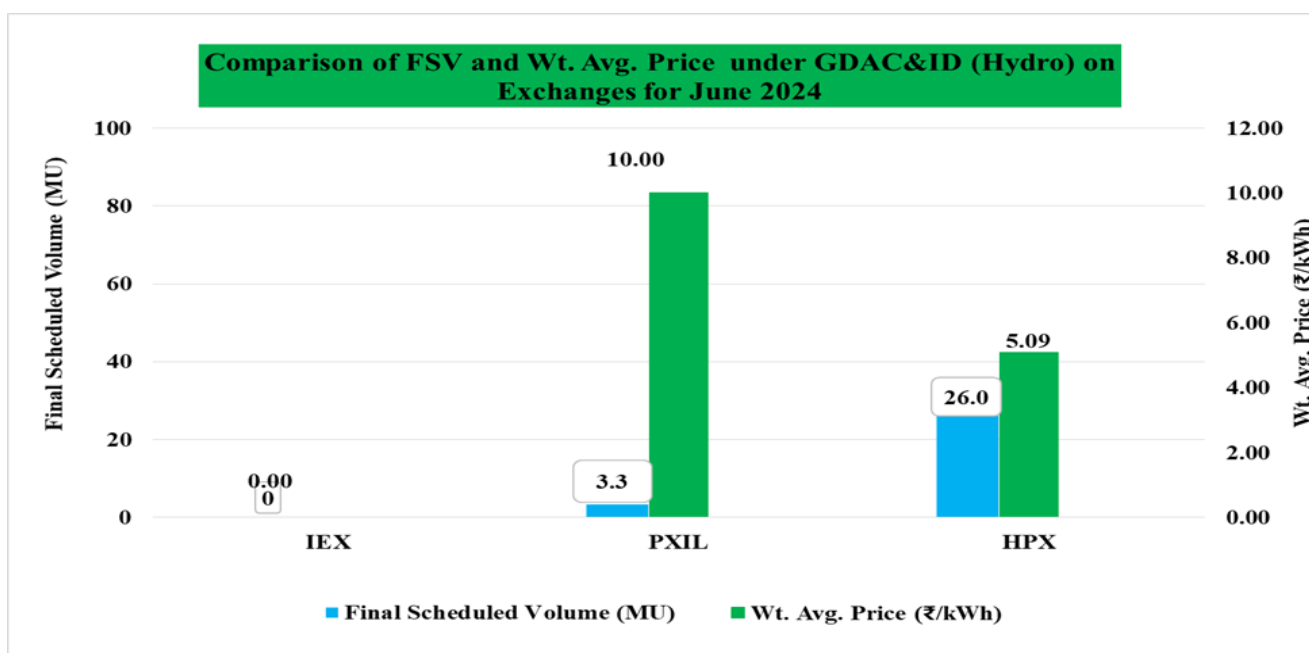


Figure-15

8. Bilateral Transactions:

The total volume of electricity transacted through **bilateral transactions** in June, 2024 was **8,232.31 MU**. The total buy volume of electricity transacted in bilateral market through direct and trader transactions in June, 2024 were **2,744.79 MU** and **5,487.52 MU** respectively. The details of bilateral transactions of Electricity during June, 2024 are shown in table below:

June, 2024	Direct	Traders	Total Bilateral Transaction (MU)
Total	2,744.79	5,487.52	8,232.31
Minimum	0.24	0.28	-
Maximum	754.05	1,115.99	-

Table -3A

The region-wise maximum/ minimum volume of electricity transacted bilaterally during June, 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	767.34	1464.5	199.13	381.00	1769.69	3075.96	8.39	456.56	0.24	109.47
Minimum	0.56	6.00	3.00	0.28	2.09	5.65	0.72	3.74	0.24	7.33
Maximum	458.13	1115.9	142.80	285.15	754.05	1105.57	6.77	452.82	0.24	102.15

Table-3B

8.1. The top 5 buyers on bilateral transaction through direct transactions in June, 2024 were **Uttar Pradesh, Haryana, Bihar, Delhi** and **West Bengal**, which constituted **80.80 %** of the market volume. Whereas **top 5 buyers** on bilateral transaction through traders in June, 2024 were **West Bengal, Uttar Pradesh, Delhi, Haryana** and **Tamil Nadu**, which constituted **80.43 %** of the market volume. [Annexure III]

8.2. The top 5 sellers on bilateral transaction through direct transactions in June, 2024 were **Telangana, Jindal Power Limited, Stage-2, IGSTPS JHAJJAR, NABINAGAR POWER GENERATING COMPANY LIMITED** and **Tamil Nadu**, which constituted **50.82 %** of the market volume. Whereas **top 5 sellers** on bilateral transaction through traders in June, 2024 were **Adani Power Limited-Raipur TPP, Maharashtra, Gujarat, Himachal Pradesh** and **Adani Power Limited - Raigarh TPP**, which constituted **25.63 %** of the market volume. [Annexure III]

8.3. Deviation Volume -The volume of Deviation observed in June, 2024 in import and export were **2,708.39 MU** and **3,013.88 MU** respectively. The total volume of Deviation observed in June, 2024 can be taken as **2,861.14 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 June, 2024 is shown in **Figure 16:**

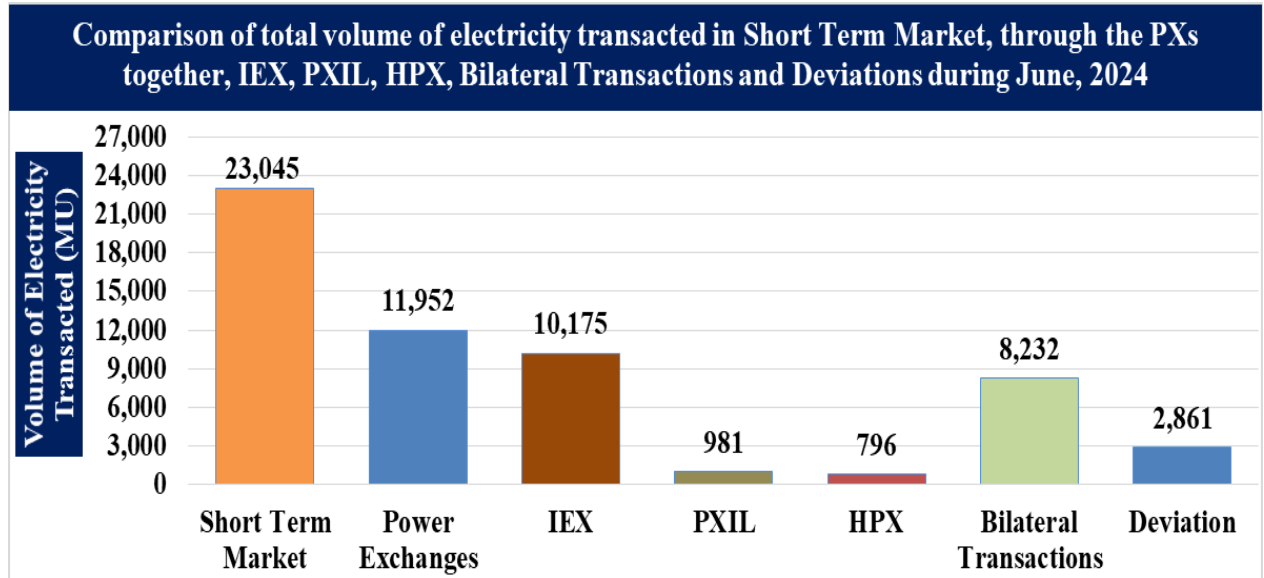
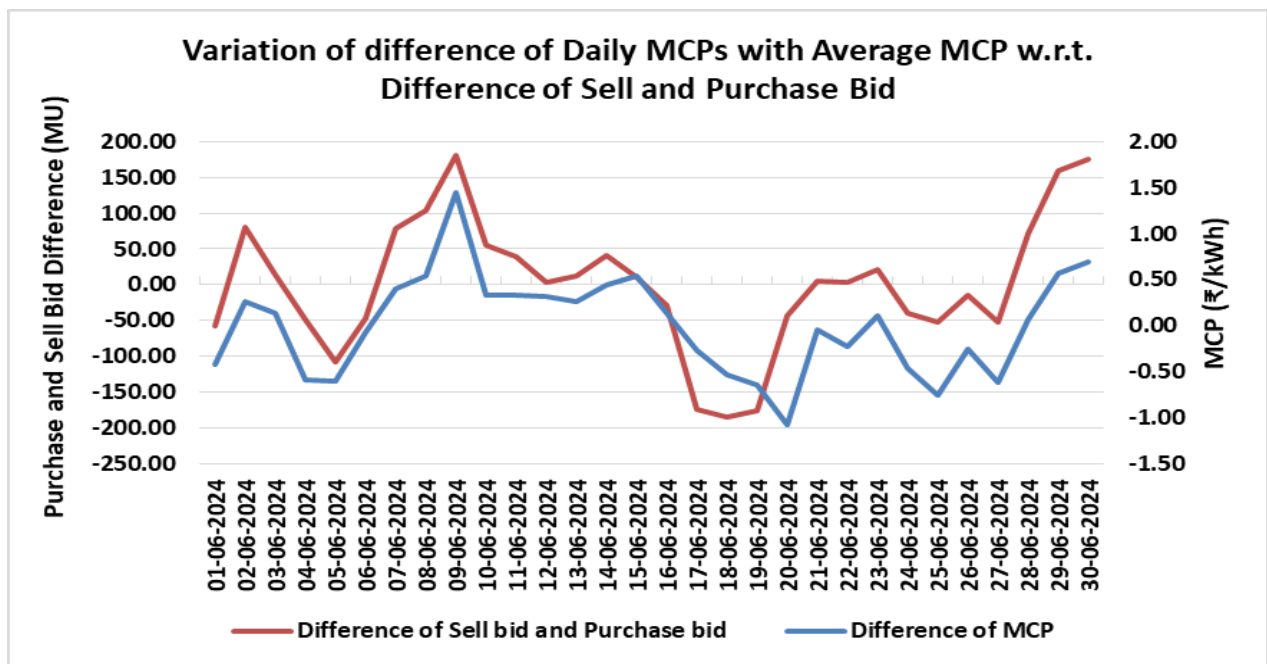


Figure -16

9. Analysis of movement of prices observed under DAM during June, 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 June, 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 Peak Demand was **1.14** in June, 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 – 17**:

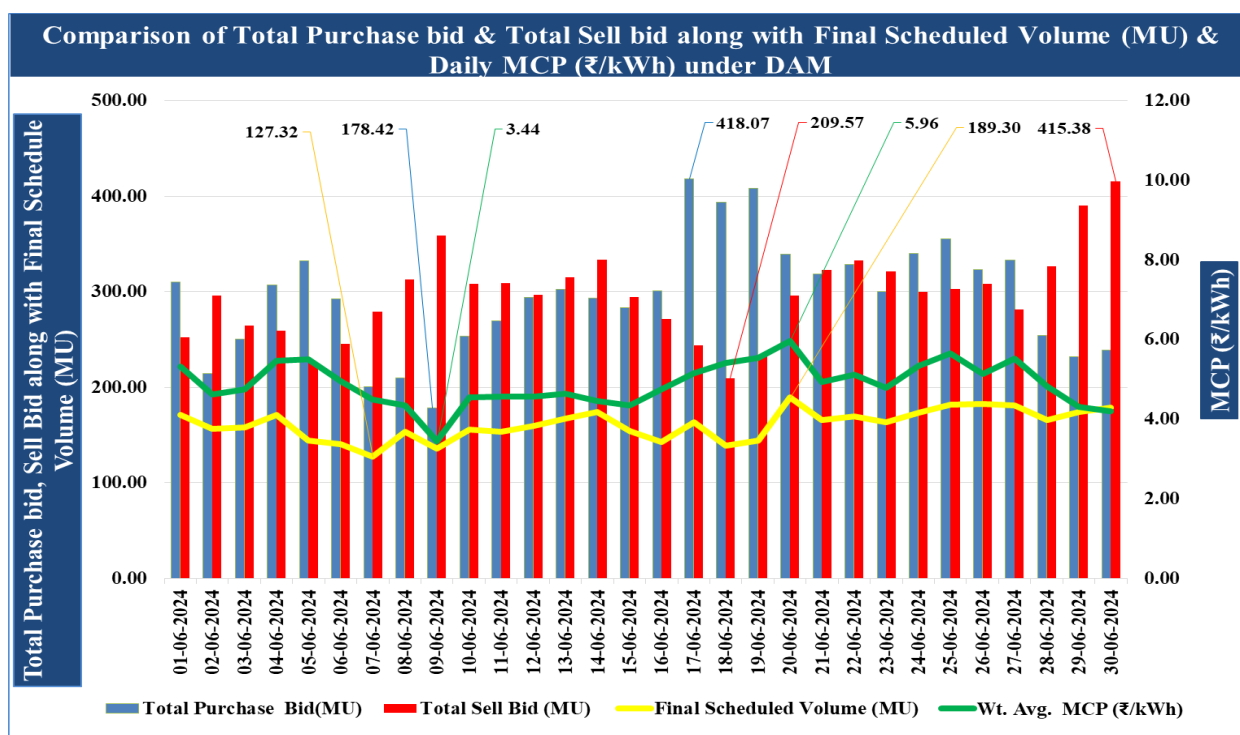


Figure – 17

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 June, 2024, it is observed that on fifth Sunday (30th June, 2024), FSV showed increasing trend in comparison to fifth Saturday (29th June, 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-18**. The same are also tabulated in **Annexure-I**

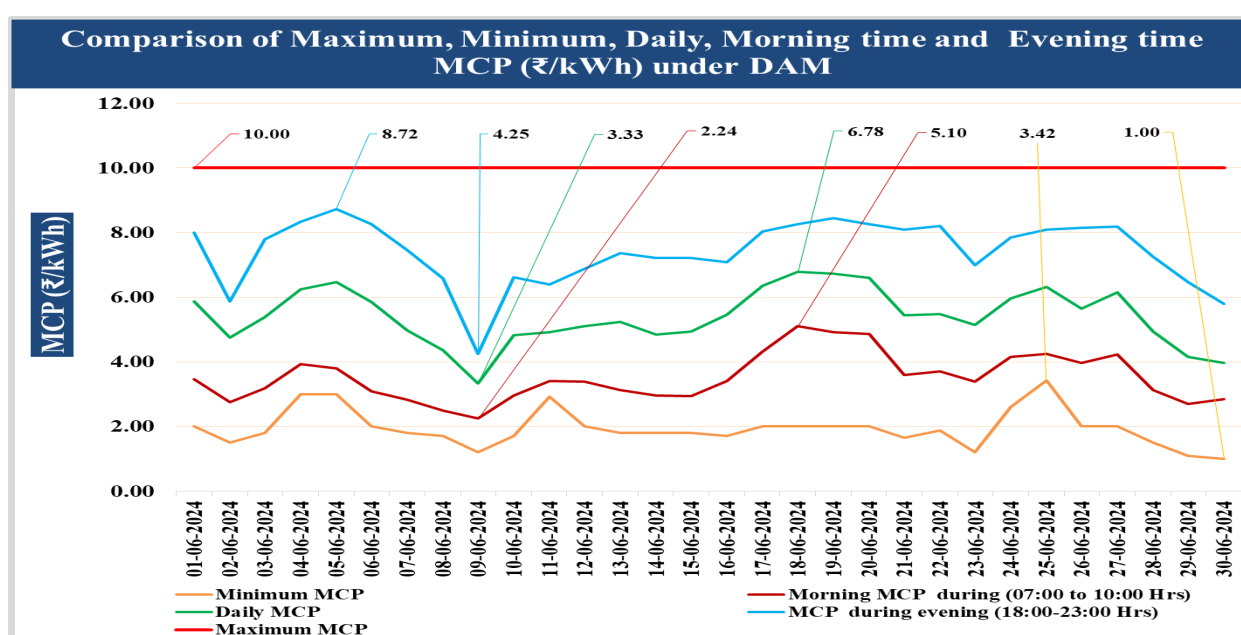


Figure-18

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

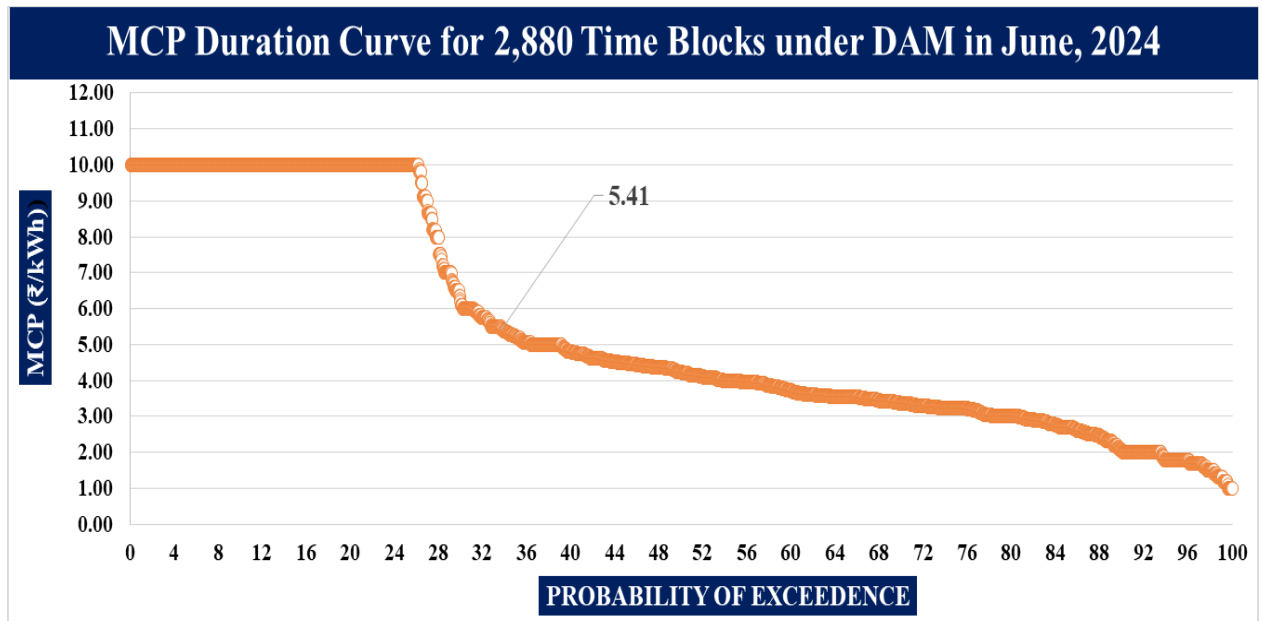


Figure – 19

9.8. It can be seen in figure 19 above that in the MCP duration curve of June, 2024, for 34.00 % of the time MCP was above Wt. Avg. MCP of the month (i.e. ₹ 5.41/kWh) and almost 66.00 % of the time MCP was below the Wt. Avg. MCP of the month.

9.9. The Purchase Bids and the MCP discovered in each of the 15-minute time block during the month almost followed the same trend [Annexure V]. This is also corroborated with the outcome of regression analysis mentioned at para 9.1 and 9.2 above.

9.10. In June, 2024, the maximum FSV occurred mostly during **the time period 14-15 Hrs** (on 20 no. of days). Whereas, the maximum MCP occurred mostly during **the time period 00-01 Hrs** (on 28 no. of days). Similarly, the minimum FSV occurred mostly during **the time period 22-23 Hrs** (on 9 no. of days). Whereas, the minimum MCP occurred mostly during **the time period 13-14 Hrs** (on 15 no. of days). [Annexure VI]

9.11. In June, 2024, there was congestion of **158.65 MU** in IEX and no transaction of electricity took place in PXIL & HPX. Further, in May, 2024, there was congestion of **0.52 MU** in IEX and no congestion in PXIL & and no transaction of electricity took place in HPX. Further, in June, 2023, there was congestion of **0.64 MU** in IEX and no congestion in PXIL & and no transaction of electricity took place in HPX.

9.12. In June, 2024, there was **no** real time curtailment in IEX and no transaction of electricity took place in PXIL & HPX. Further, in May, 2024, there was **no** real time curtailment in IEX and no congestion in PXIL & and no transaction of electricity took place in HPX. Further in June, 2023, there was **no** real time curtailment in IEX and PXIL & no transaction of electricity took place in HPX.

- 9.13.** The **top 10 sellers** on the power exchanges under Day Ahead Market (**DAM**) in June, 2024 were **Karnataka, Chhattisgarh, Jindal Power Ltd. Stg-II, Himachal Pradesh, Jaypee Nigrie, ADANI Power Limited-Raipur TPP, Delhi, ADANI Power Limited-Rajgarh TPP, Mahan Energy Limited and Assam**, which constituted **49.82 %** of the market volume. **[Annexure VII]**
- 9.14.** The **top 10 buyers** on the power exchanges under Day Ahead Market (**DAM**) in June, 2024 were **Telangana, Gujarat, Punjab, Rajasthan, Uttar Pradesh, West Bengal, Uttarakhand, Haryana, Tamil Nadu and Maharashtra**, which constituted **85.61 %** of the market volume. **[Annexure VII]**
- 9.15.** The total volume of electricity purchased by Discoms/Licensees under DAM in June, 2024 was **4,750.93 MU**, which constituted **98.24 %** 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 June, 2024 was **2,154.52 MU**, which constituted **44.55 %** of total volume of electricity sold on the power exchanges.

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

10.1. Similar to the regression analysis carried out for Day Ahead Market, the regression analysis for Real Time Market was also done. The regression analysis revealed that the significant variable was the Coal Generation. Further, the regression analysis revealed that the elasticity of the Daily Wt. Avg. MCP with respect to Coal Generation was **5.07** in June, 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-20** below:

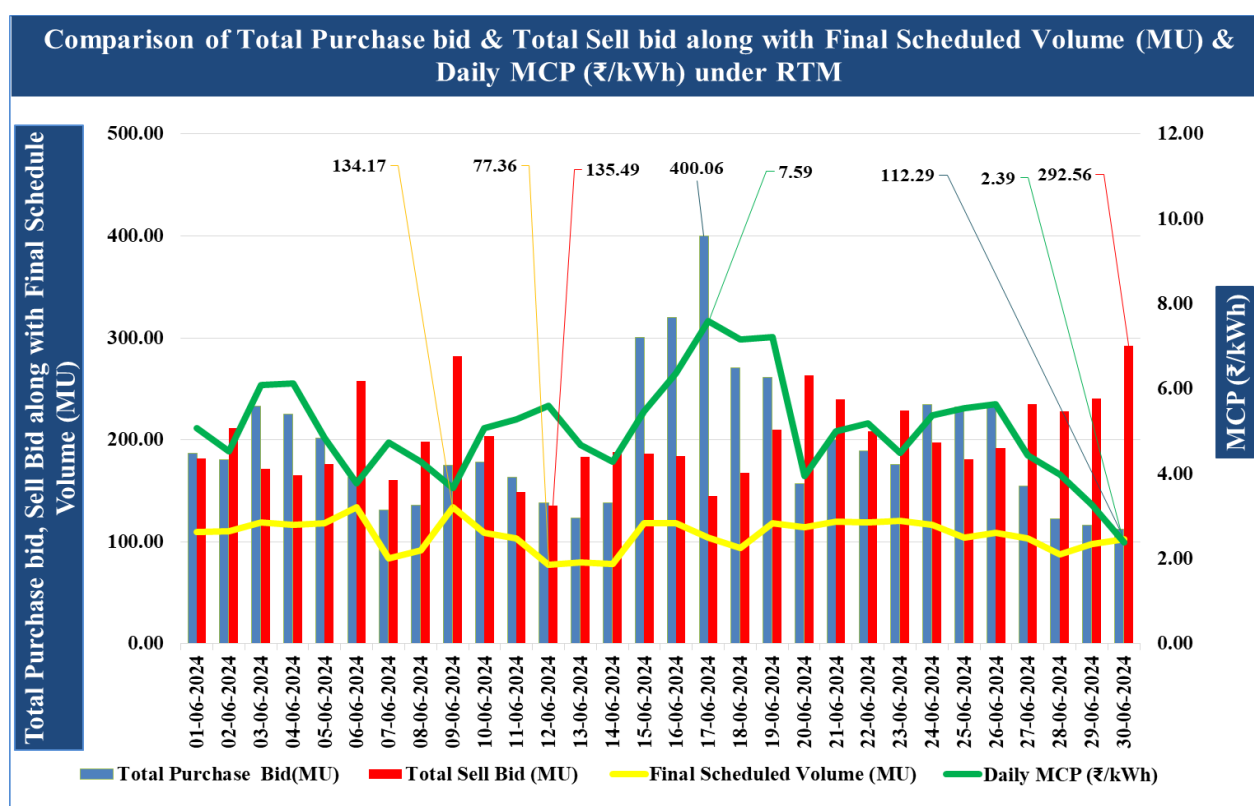


Figure-20

10.4. A comparison of maximum, minimum, daily, evening time MCP is shown in **Figure-21**. The same are also tabulated in **Annexure-VIII**.

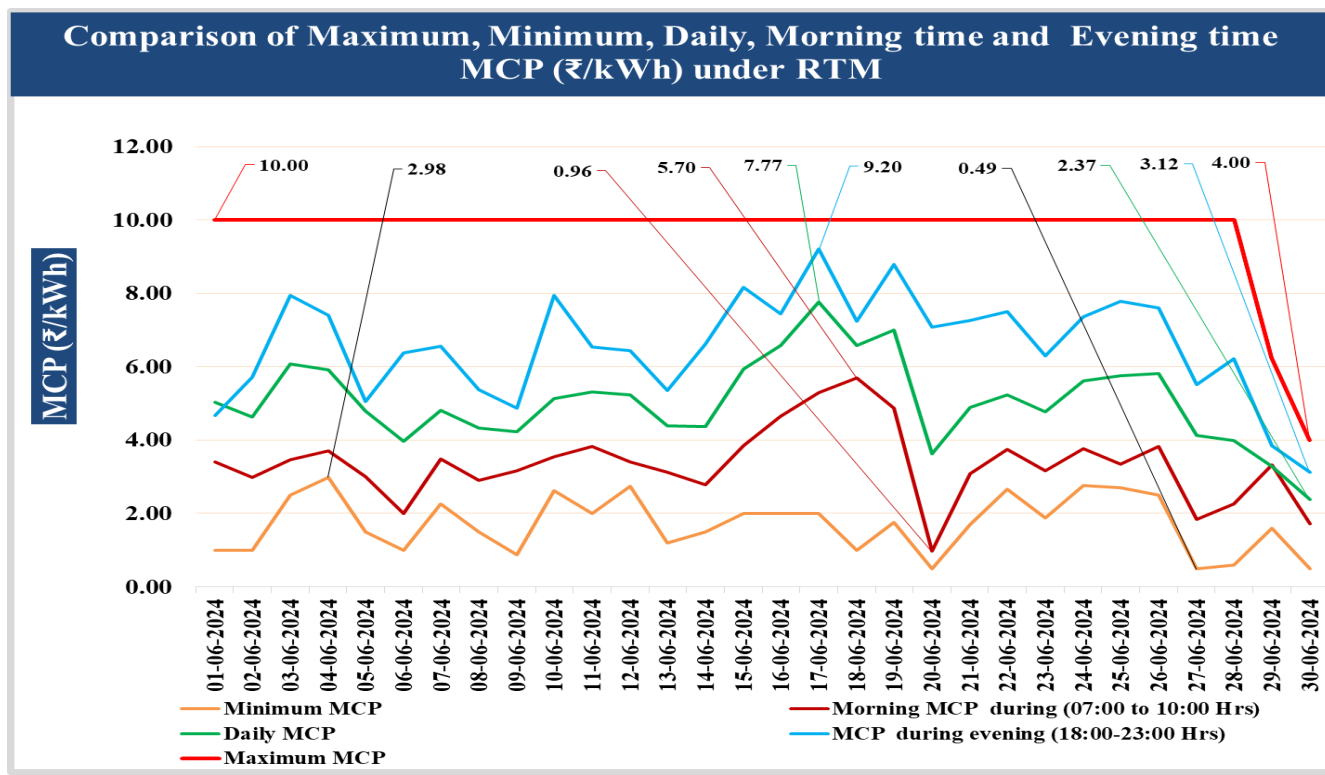


Figure-21

10.5. The Market Clearing Price duration curves for time block wise MCP for the month of June, 2024 is shown in **Figure-22**.

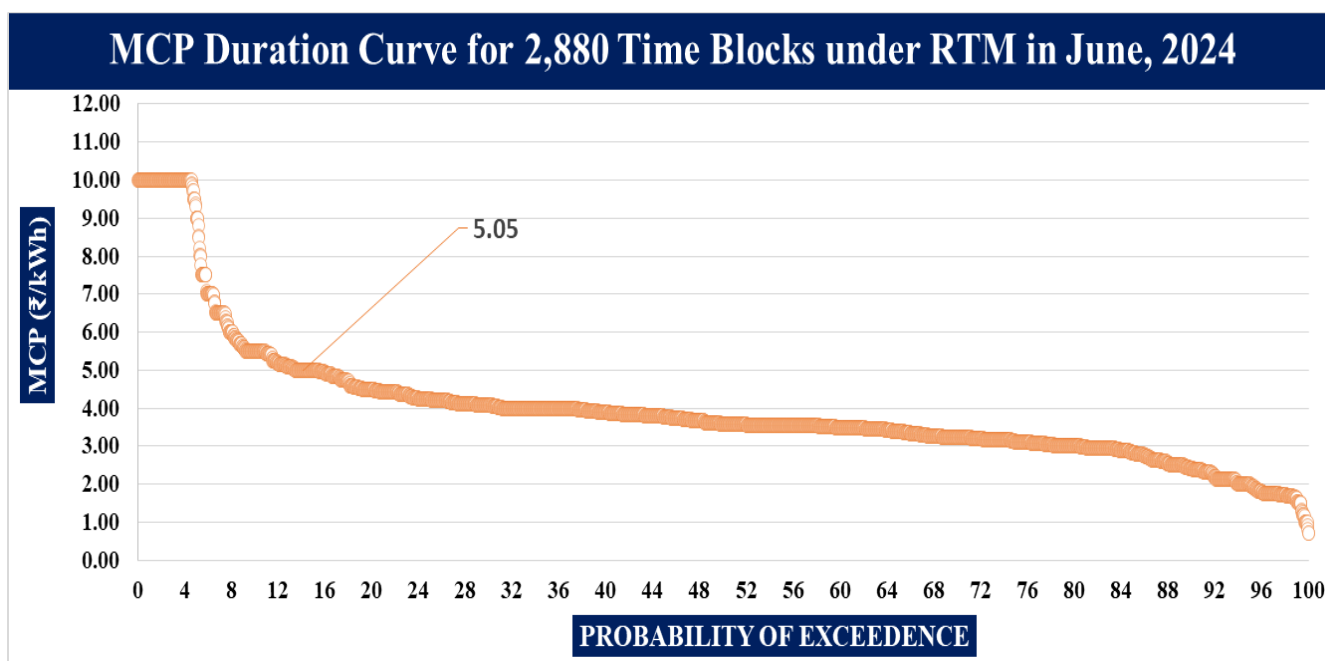


Figure-22

10.6. It can be seen in figure 22 above that in the MCP duration curve of June, 2024, for 15.00 % of the time the MCP was above the Wt. Avg. MCP of the month (i.e. ₹ 5.05/kWh) and for 85.00 % of the time the MCP was below the Wt. Avg. MCP of the month.

- 10.7.** In June, 2024, the maximum FSV occurred mostly during the **time period 14-16 Hrs** (on 10 no. of days). Whereas, the maximum MCP also occurred mostly during the **time period 00-01 Hrs** (on 24 no. of days). Similarly, the minimum FSV occurred mostly during the **time period 22-24 Hrs** (on 6 no. of days). Whereas, the minimum MCP occurred mostly during the **time period 13-15 Hrs** (on 7 no. of days).[Annexure X]
- 10.8.** There was **no** real time curtailment in IEX and PXIL & no transaction took place in HPX under Real Time Market (RTM) during June, 2024. Further, in May, 2024 **no** real time curtailment in IEX, PXIL & HPX. Similarly, in June, 2023, there was **no** real time curtailment in IEX while no transaction took place in PXIL and HPX.
- 10.9.** In June, 2024, there was congestion of **116.03 MU** in IEX and no congestion in PXIL & no transaction took place in HPX. Further, in May, 2024, there was congestion of **4.95 MU** in IEX and no congestion in PXIL & HPX. Similarly, in June, 2023, there was congestion **0.70 MU** in IEX and no transaction happened in PXIL & HPX.
- 10.10.** The **top 10 sellers** on the power exchanges under Real Time Market (**RTM**) in June, 2024 were **Madhya Pradesh, Chhattisgarh, Karnataka, Delhi, Tamil Nadu, Bihar, Himachal Pradesh, Andhra Pradesh, Assam and West Bengal**, which constituted **56.75 %** of the market volume. [Annexure XI]
- 10.11.** The **top 10 buyers** on the power exchanges under Real Time Market (**RTM**) in June, 2024 were **Rajasthan, Punjab, Uttar Pradesh, Telangana, West Bengal, Maharashtra, Tamil Nadu, Odisha, Gujarat and Jharkhand**, which constituted **77.91%** of the market volume. [Annexure XI]
- 10.12.** The total volume of electricity purchased by Discoms/Licensees under RTM in June, 2024 was **3,099.03 MU**, which constituted **96.28 %** 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 June, 2024 was **2,438.87 MU**, which constituted **75.77 %** of total volume of electricity sold on the power exchanges.

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

Final Scheduled Volume, Wt. Avg. MCP and Real-Time Curtailment under Day Ahead Market (DAM) for the months of April, 2024 to March, 2025 of IEX, PXIL and HPX.										
Quarter	Months	Final Scheduled Volume (MU)			Market Clearing Price (₹/kWh)			Real Time Curtailment (MU)		
		IEX	PXIL	HPX	IEX	PXIL	HPX	IEX	PXIL	HPX
Quarter -I	April, 2024	4,131.42	3.85	0	4.65	10.00	-	0	0	0
	May, 2024	4,315.58	0	0.10	4.76	-	10.00	0	0	0
	June, 2024	4,836.23	0	0	4.84	-	-	0	0	0
Total Quarter -I	April - June, 2024	13,283.23	3.85	0.10	4.75	10.00	10.00	0	0	0
Total April, 2024 – March, 2025		13,283.23	3.85	0.10	4.75	10.00	10.00	0	0	0

Annexure-II

Final Scheduled Volume under Term Ahead Market (TAM) for the months of April, 2024 to March, 2025 of IEX, PXIL and HPX (Delivery date basis)					
Quarter	Months	Final Scheduled Volume (MU)			
		IEX	PXIL	HPX	Total
Quarter -I	April, 2024	1141.57	1521.03	897.57	3560.17
	May, 2024	911.93	1003.55	964.68	2880.16
	June, 2024	1054.97	564.87	396.82	2016.66
Total Quarter – I	April - June, 2024	3,108.47	3,089.45	2,259.07	8,456.99
Total April, 2024 – March, 2025		3,108.47	3,089.45	2,259.07	8,456.99

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

(i) Top five Buyers in Bilateral transactions

Entity Name	Direct		Entity Name	Through Traders	
	(MU)	Percent		(MU)	Percent
Uttar Pradesh	754.05	27.47%	West Bengal	1115.99	20.34%
Haryana	556.81	20.29%	Uttar Pradesh	1105.57	20.15%
Bihar	458.13	16.69%	Delhi	959.51	17.49%
Delhi	260.63	9.50%	Haryana	779.99	14.21%
West Bengal	188.17	6.86%	Tamil Nadu	452.82	8.25%
Total Volume	2,217.79	80.80%	Total Volume	4,413.88	80.43%
Total Volume in Bilateral	2,744.79		Total Volume in Bilateral	5,487.52	

(ii) Top five Sellers in Bilateral transactions

Entity Name	Direct		Entity Name	Through Traders	
	(MU)	Percent		(MU)	Percent
Telangana	360.00	13.12%	Adani Power Limited- Raipur TPP	431.47	7.86%
Jindal Power Limited, Stage-2	324.38	11.82%	Maharashtra	288.51	5.26%
IGSTPS JHAJJAR	260.91	9.51%	Gujarat	248.66	4.53%
NABINAGAR POWER GENERATING COMPANY LIMITED	226.14	8.24%	Himachal Pradesh	221.10	4.03%
Tamil Nadu	223.48	8.14%	Adani Power Limited - Raigarh TPP	216.66	3.95%
Total Volume	1,394.91	50.82%	Total Volume	1,406.40	25.63%
Total Volume in Bilateral	2,744.79		Total Volume in Bilateral	5,487.52	

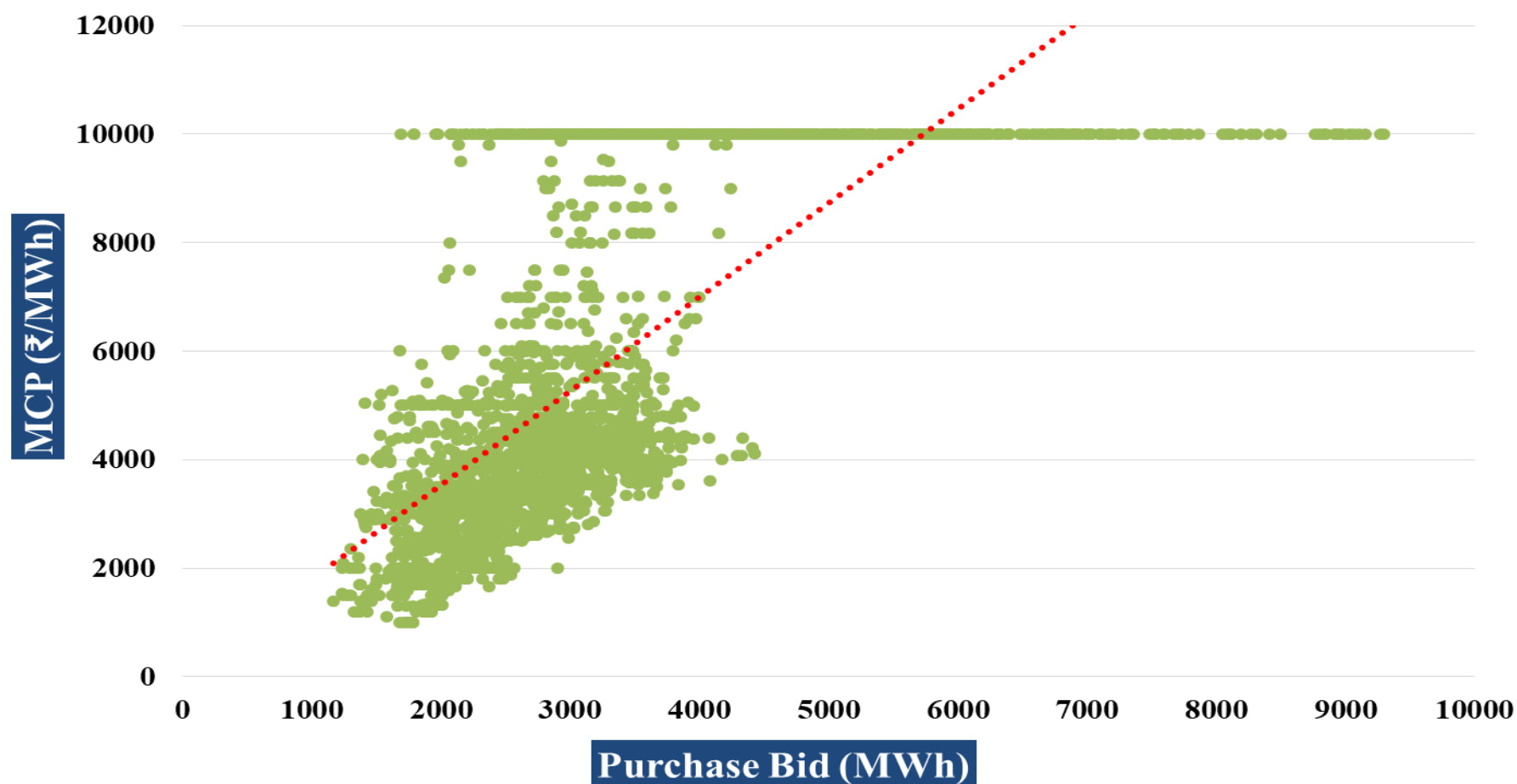
Evening, Day, Night, Morning, Maximum, Minimum, Wt. Avg. MCP (₹/kWh) and Final Scheduled Volume (MU) under DAM

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)
01-06-2024	3.46	3.92	8.00	7.40	10.00	2.00	5.88	171.14
02-06-2024	2.76	2.29	5.87	7.41	10.00	1.50	4.76	156.13
03-06-2024	3.17	3.40	7.80	6.54	10.00	1.80	5.38	157.93
04-06-2024	3.93	4.07	8.33	7.96	10.00	3.00	6.25	170.95
05-06-2024	3.80	3.87	8.72	8.66	10.00	3.00	6.47	144.23
06-06-2024	3.09	3.72	8.26	7.51	10.00	2.00	5.85	140.56
07-06-2024	2.84	2.68	7.46	6.36	10.00	1.80	4.97	127.32
08-06-2024	2.49	2.97	6.57	4.94	10.00	1.70	4.36	153.75
09-06-2024	2.24	1.81	4.25	4.69	10.00	1.20	3.33	135.70
10-06-2024	2.95	2.95	6.61	6.22	10.00	1.70	4.82	155.92
11-06-2024	3.40	3.45	6.39	5.99	10.00	2.92	4.92	153.36
12-06-2024	3.39	3.36	6.87	6.33	10.00	2.00	5.11	159.17
13-06-2024	3.12	3.35	7.36	6.49	10.00	1.80	5.23	167.01
14-06-2024	2.97	3.21	7.22	5.50	10.00	1.80	4.84	174.34
15-06-2024	2.95	2.76	7.22	6.28	10.00	1.80	4.93	154.19
16-06-2024	3.41	2.54	7.08	8.15	10.00	1.70	5.46	142.93
17-06-2024	4.32	3.37	8.04	9.08	10.00	2.00	6.36	163.58
18-06-2024	5.10	3.27	8.25	10.00	10.00	2.00	6.78	138.54
19-06-2024	4.92	3.12	8.44	9.88	10.00	2.00	6.72	144.22
20-06-2024	4.86	3.20	8.25	9.57	10.00	2.00	6.60	189.30
21-06-2024	3.59	2.74	8.08	6.91	10.00	1.66	5.44	165.86
22-06-2024	3.70	2.80	8.20	6.86	10.00	1.87	5.48	169.40
23-06-2024	3.39	2.16	7.00	7.55	10.00	1.20	5.15	163.63
24-06-2024	4.15	3.35	7.84	7.99	10.00	2.60	5.96	173.17
25-06-2024	4.24	3.85	8.10	8.48	10.00	3.42	6.33	181.90
26-06-2024	3.97	3.02	8.15	7.11	10.00	2.00	5.65	182.43
27-06-2024	4.23	3.51	8.19	8.15	10.00	2.00	6.15	181.33
28-06-2024	3.12	2.26	7.25	6.67	10.00	1.50	4.94	165.61
29-06-2024	2.70	1.69	6.47	5.43	10.00	1.10	4.15	174.06
30-06-2024	2.84	1.33	5.80	5.65	10.00	1.00	3.96	178.55
Maximum	5.10	4.07	8.72	10.00	10.00	3.42	6.78	189.30
Minimum	2.24	1.33	4.25	4.69	10.00	1.00	3.33	127.32
Average	3.50	3.00	7.40	7.19	10.00	1.94	5.41	161.21

MCP: Market Clearing Price (₹/kWh)

FSV: Final Scheduled Volume (MU)

Comparison of MCP w.r.t. Purchase Bid for 2,880 Time Blocks during the month of June, 2024 under DAM



Time Blocks during the Month [96 time blocks in a day x 30 days = 2,880]

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
01-06-2024	14:30 - 14:45	2.77	00:00 - 00:15	10.00	23:15 - 23:30	0.88	08:45 - 09:00	2.00
02-06-2024	05:45 - 06:00	2.36	00:00 - 00:15	10.00	18:15 - 18:30	1.05	10:30 - 10:45	1.50
03-06-2024	14:30 - 14:45	2.72	00:00 - 00:15	10.00	23:15 - 23:30	0.89	08:45 - 09:00	1.80
04-06-2024	14:45 - 15:00	3.00	00:00 - 00:15	10.00	23:00 - 23:15	0.72	08:45 - 09:00	3.00
05-06-2024	14:45 - 15:00	2.68	00:00 - 00:15	10.00	23:45 - 24:00	0.54	13:00 - 13:15	3.00
06-06-2024	14:45 - 15:00	2.76	00:00 - 00:15	10.00	22:15 - 22:30	0.54	08:45 - 09:00	2.00
07-06-2024	14:45 - 15:00	2.03	00:00 - 00:15	10.00	22:00 - 22:15	0.86	13:00 - 13:15	1.80
08-06-2024	14:45 - 15:00	2.22	21:00 - 21:15	10.00	01:45 - 02:00	1.02	13:00 - 13:15	1.70
09-06-2024	14:45 - 15:00	1.85	22:15 - 22:30	10.00	08:45 - 09:00	1.13	13:00 - 13:15	1.20
10-06-2024	14:45 - 15:00	2.63	00:00 - 00:15	10.00	19:00 - 19:15	1.15	12:00 - 12:15	1.70
11-06-2024	14:45 - 15:00	2.38	00:00 - 00:15	10.00	23:30 - 23:45	0.97	08:45 - 09:00	2.92
12-06-2024	14:45 - 15:00	2.67	00:00 - 00:15	10.00	22:45 - 23:00	0.88	11:00 - 11:15	2.00
13-06-2024	14:45 - 15:00	2.72	00:00 - 00:15	10.00	22:45 - 23:00	0.87	10:00 - 10:15	1.80
14-06-2024	12:00 - 12:15	2.69	00:00 - 00:15	10.00	22:15 - 22:30	1.10	09:00 - 09:15	1.80
15-06-2024	14:45 - 15:00	2.62	00:00 - 00:15	10.00	22:45 - 23:00	0.67	08:45 - 09:00	1.80
16-06-2024	14:45 - 15:00	2.29	00:00 - 00:15	10.00	22:15 - 22:30	0.71	11:45 - 12:00	1.70
17-06-2024	14:45 - 15:00	2.94	00:00 - 00:15	10.00	23:45 - 24:00	0.68	13:00 - 13:15	2.00
18-06-2024	15:00 - 15:15	2.70	00:00 - 00:15	10.00	00:00 - 00:15	0.55	13:15 - 13:30	2.00
19-06-2024	15:15 - 15:30	2.49	00:00 - 00:15	10.00	00:30 - 00:45	0.61	11:15 - 11:30	2.00
20-06-2024	15:45 - 16:00	2.73	00:00 - 00:15	10.00	22:45 - 23:00	0.98	13:00 - 13:15	2.00
21-06-2024	14:30 - 14:45	2.35	00:00 - 00:15	10.00	00:00 - 00:15	1.08	13:00 - 13:15	1.66
22-06-2024	14:45 - 15:00	2.34	00:00 - 00:15	10.00	20:00 - 20:15	1.18	13:00 - 13:15	1.87
23-06-2024	15:30 - 15:45	2.36	00:00 - 00:15	10.00	21:00 - 21:15	1.28	12:30 - 12:45	1.20
24-06-2024	14:30 - 14:45	2.61	00:00 - 00:15	10.00	20:45 - 21:00	0.99	11:45 - 12:00	2.60
25-06-2024	14:15 - 14:30	2.84	00:00 - 00:15	10.00	21:00 - 21:15	1.09	13:00 - 13:15	3.42
26-06-2024	06:15 - 06:30	2.48	00:00 - 00:15	10.00	20:45 - 21:00	1.22	13:15 - 13:30	2.00
27-06-2024	14:45 - 15:00	2.69	00:00 - 00:15	10.00	22:30 - 22:45	0.90	13:15 - 13:30	2.00
28-06-2024	07:30 - 07:45	2.06	00:00 - 00:15	10.00	01:45 - 02:00	1.33	13:00 - 13:15	1.50
29-06-2024	07:00 - 07:15	2.29	00:00 - 00:15	10.00	00:15 - 00:30	1.45	13:45 - 14:00	1.10
30-06-2024	07:00 - 07:15	2.24	00:00 - 00:15	10.00	00:45 - 01:00	1.43	13:00 - 13:15	1.00

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

Annexure-VII**Sellers and Buyers under Day Ahead Market (DAM) in June, 2024**

S. No.	Entity Name	Sell		Entity Name	Purchase	
		(MU)	Percent (%)		(MU)	Percent (%)
1	Karnataka	621.95	12.86%	Telangana	846.52	17.50%
2	Chhattisgarh	291.22	6.02%	Gujarat	704.42	14.57%
3	Jindal Power Ltd.	246.00	5.09%	Punjab	625.63	12.94%
4	Himachal Pradesh	231.58	4.79%	Rajasthan	592.22	12.25%
5	Jaypee Nigrie	217.90	4.51%	Uttar Pradesh	463.93	9.59%
6	Adani Power	205.61	4.25%	West Bengal	224.57	4.64%
7	Delhi	185.71	3.84%	Uttarakhand	196.17	4.06%
8	Adani Power	147.44	3.05%	Haryana	184.10	3.81%
9	MAHAN	137.18	2.84%	Tamil Nadu	151.87	3.14%
10	Assam	124.71	2.58%	Maharashtra	150.87	3.12%
11	Jindal Power	122.97	2.54%	Daman & Diu - Dadra &	143.45	2.97%
12	NVVN (SNA) -	98.09	2.03%	Andhra Pradesh	134.19	2.77%
13	Maharashtra	95.24	1.97%	Odisha	104.82	2.17%
14	DB Power	90.85	1.88%	Bihar	50.15	1.04%
15	MAHAN	86.42	1.79%	Delhi	35.49	0.73%
16	JITPL	82.46	1.71%	Madhya Pradesh	34.63	0.72%
17	AD Hydro	76.83	1.59%	NEA - Bihar STU	24.93	0.52%
18	Gujarat	74.58	1.54%	Karnataka	24.52	0.51%
19	Karcham Wangtoo	60.53	1.25%	Chandigarh	23.45	0.48%
20	Madhya Pradesh	58.87	1.22%	Kerala	18.39	0.38%
21	ADANI WIND	58.23	1.20%	Railways	13.97	0.29%
22	Andhra Pradesh	53.60	1.11%	NEA-NR	12.13	0.25%
23	Sembcorp Energy	53.42	1.10%	ArcelorMittal Nippon	10.51	0.22%
24	Jindal Steel	49.75	1.03%	Jhabua Power	10.27	0.21%
25	Meghalaya	49.10	1.02%	DVC	8.06	0.17%
26	Rajasthan	47.56	0.98%	Jharkhand	7.99	0.17%
27	RENEW SURYA	46.25	0.96%	Goa SR	7.36	0.15%
28	ADANI	44.32	0.92%	Sikkim	5.55	0.11%
29	Odisha	43.89	0.91%	Tripura	5.03	0.10%
30	Renew Surya Ravi	43.50	0.90%	Nagaland	3.41	0.07%
31	Shree Cement	40.61	0.84%	Goa WR	3.02	0.06%
32	Uttar Pradesh	40.26	0.83%	MB Power	2.84	0.06%
33	RKM Power	39.42	0.82%	Assam	2.69	0.06%
34	ACBIL	38.48	0.80%	J&K	1.85	0.04%
35	Adani Green Energy	37.33	0.77%	Himachal Pradesh	1.53	0.03%
36	RENEW SURYA	34.40	0.71%	SKS Power	1.43	0.03%
37	Kerala	33.89	0.70%	Jindal Power	1.37	0.03%
38	Telangana	32.91	0.68%	Chhattisgarh	1.22	0.03%
39	Tamil Nadu	32.35	0.67%	Meghalaya	0.99	0.02%
40	Sainj HEP	31.55	0.65%	BHARAT ALUMINIUM	0.48	0.01%
41	Adept Renewable	30.70	0.63%	Pondicherry	0.20	0.004%
42	ADANI SOLAR	30.27	0.63%			
43	West Bengal	29.88	0.62%			
44	Jhabua Power	27.30	0.56%			
45	Costal Energen	27.30	0.56%			
46	Amp Energy Green	26.01	0.54%			
47	Barh Stg-2	25.09	0.52%			
48	Haryana	25.02	0.52%			
49	ADANI SOLAR	22.41	0.46%			
50	Goa WR	22.36	0.46%			
51	ADANI SOLAR	21.16	0.44%			

52	DVC	20.53	0.42%			
53	Nabinagar Power	20.31	0.42%			
54	Onevolt Energy	18.71	0.39%			
55	DGEN Mega Power	18.10	0.37%			
56	NTPC North	17.12	0.35%			
57	Sorang HEP,	14.30	0.30%			
58	Simhapuri Energy	12.56	0.26%			
59	Pondicherry	12.42	0.26%			
60	Farakka	12.40	0.26%			
61	SKS Power	11.77	0.24%			
62	Singoli Bhagwati	11.64	0.24%			
63	KBUNL(MTPS-II)	11.60	0.24%			
64	Mizoram	11.33	0.23%			
65	Basochhu	11.18	0.23%			
66	WIND FIVE	10.86	0.22%			
67	Ostro Kannada	10.47	0.22%			
68	Adani Green Energy	10.40	0.22%			
69	NTPP BRBCL	10.40	0.22%			
70	BALCO 2	10.32	0.21%			
71	RENEW SURYA	9.85	0.20%			
72	ADANI	9.65	0.20%			
73	Sembcorp Gayatri	9.26	0.19%			
74	IND BARATH	8.11	0.17%			
75	J&K	7.43	0.15%			
76	Maruti Clean Coal	7.12	0.15%			
77	RENEW SURYA	7.06	0.15%			
78	Lanco Budhil	6.80	0.14%			
79	IL&FS	6.51	0.13%			
80	Barh STPS Stg - I	6.34	0.13%			
81	Bongaigaon	6.34	0.13%			
82	Ramagundam	6.24	0.13%			
83	Farakka Stg 3	6.01	0.12%			
84	Adani Green Energy	5.72	0.12%			
85	GMR Warora	5.05	0.10%			
86	TPSL 200MW	4.58	0.09%			
87	Kahalgaon	4.56	0.09%			
88	Dadri Stg-2	3.75	0.08%			
89	DHARIWAL STU	3.60	0.07%			
90	ADANI WIND	3.46	0.07%			
91	Chandigarh	3.34	0.07%			
92	Nikachhu	3.31	0.07%			
93	Ayana Renewable	3.22	0.07%			
94	Kahalgaon-II	2.82	0.06%			
95	NEA-NR	2.74	0.06%			
96	Transition Energy	2.65	0.05%			
97	IGSTPS JHAJJAR	2.53	0.05%			
98	Ayana Renewable	2.43	0.05%			
99	Khargone STPP	2.43	0.05%			
100	Sikkim	2.38	0.05%			
101	Palatana	2.01	0.04%			
102	GMR Kamalanga	1.98	0.04%			
103	Singrauli	1.93	0.04%			
104	Adani Green Energy	1.83	0.04%			
105	ADANI SOLAR	1.71	0.04%			
106	Simhadri FSP 15	1.71	0.04%			
107	RENEW SURYA	1.52	0.03%			
108	Nagaland	1.38	0.03%			

109	Grian Energy	1.26	0.03%			
110	Unchahar-II	1.23	0.03%			
111	Rihand-III	1.23	0.03%			
112	Rihand-II	1.16	0.02%			
113	Rihand-I	1.12	0.02%			
114	NTPC Simhadri 25	0.95	0.02%			
115	Ramagundam Stg-1	0.91	0.02%			
116	Kopili 2 IN	0.90	0.02%			
117	Bihar	0.88	0.02%			
118	Dhariwal ISTS	0.87	0.02%			
119	The Tata Power Co	0.76	0.02%			
120	Unchahar-III	0.72	0.01%			
121	Unchahar-IV	0.50	0.01%			
122	NTPC Kudgi	0.49	0.01%			
123	NTPC Gadawara	0.46	0.01%			
124	Darlipalli	0.37	0.01%			
125	NTPL	0.23	0.005%			
126	NTECL Vallur	0.21	0.004%			
127	ADANI GREEN	0.19	0.004%			
128	Talcher	0.19	0.004%			
129	Unchahar-I	0.17	0.004%			
130	Uttarakhand	0.16	0.003%			
131	Simhadri Stg-2	0.15	0.003%			
132	Tanda Stg-2	0.13	0.003%			
133	Ramagundam Stg-3	0.13	0.003%			
134	Mouda Stg-2	0.09	0.002%			
135	NLC TPS-II	0.09	0.002%			
136	NLC TPS-II Stg-2	0.08	0.002%			
137	NTPC Lara	0.06	0.001%			
138	TPSL Banderwala	0.06	0.001%			
139	Mouda Stg-1	0.05	0.001%			
140	NLC	0.04	0.001%			
141	NLC TPS-II Expn	0.04	0.001%			
142	Nani Virani Wind	0.03	0.001%			
143	Dadri TPS	0.02	0.0003%			
144	NTPC Sholapur	0.02	0.0003%			
145	Korba	0.01	0.0003%			
146	Neyveli New	0.01	0.0002%			
Total Volume of top 10		2,409.31	49.82%	Total Volume of top 10	4,140.32	85.61%
Total Volume in PXs		4,836.23		Total Volume in PXs	4,836.23	

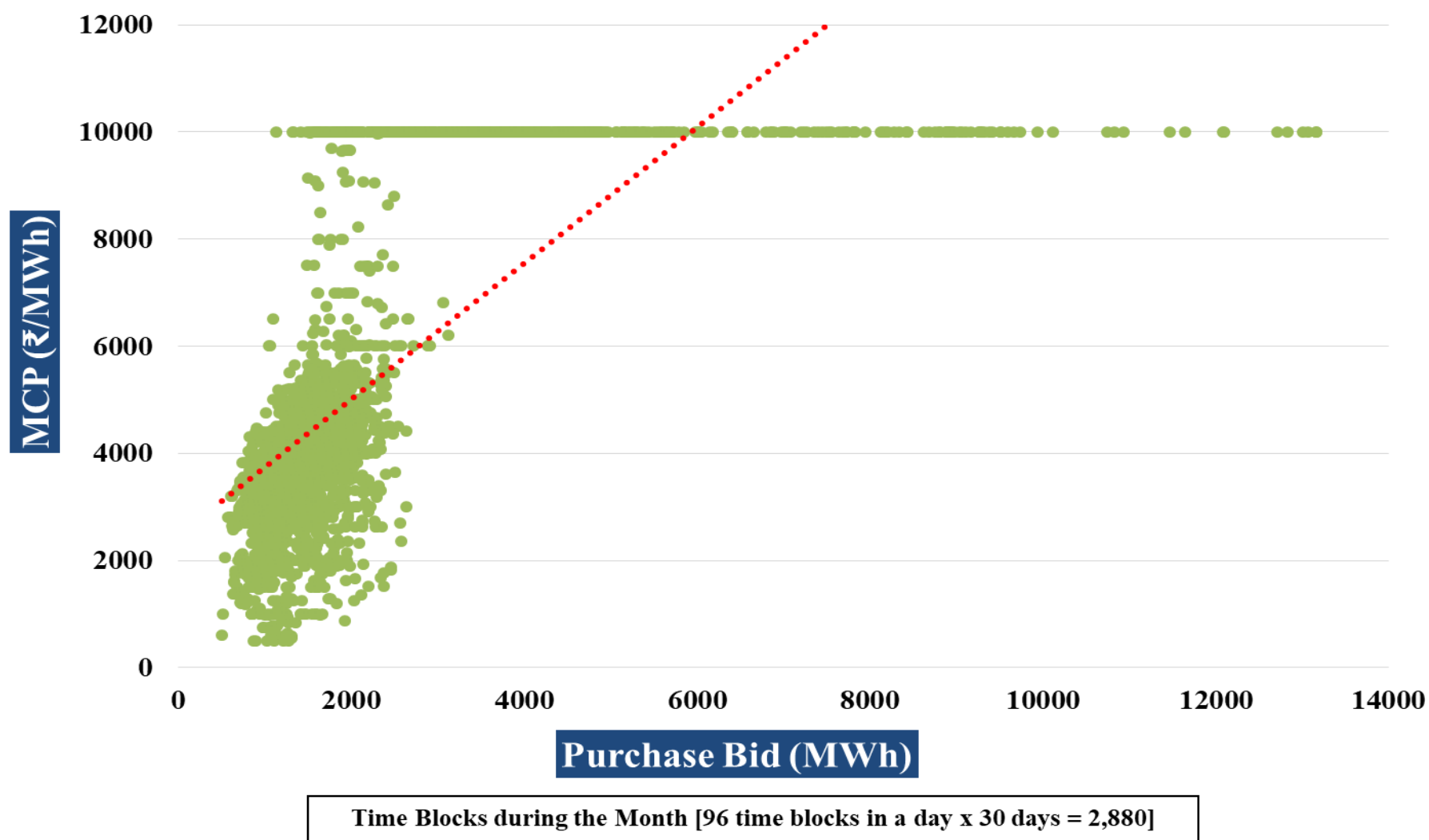
Annexure-VIII**Evening, Day, Night, Morning, Maximum, Minimum, Wt. Avg. MCP (₹/kWh) and Final Scheduled Volume (MU) under RTM**

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)
01-06-2024	3.41	4.23	4.67	7.09	10.00	0.99	5.04	109.84
02-06-2024	2.98	3.70	5.71	5.57	10.00	1.00	4.63	110.10
03-06-2024	3.46	4.92	7.94	7.12	10.00	2.50	6.07	119.34
04-06-2024	3.71	4.49	7.41	7.35	10.00	2.98	5.92	116.95
05-06-2024	3.00	4.05	5.04	6.32	10.00	1.50	4.79	117.86
06-06-2024	2.00	3.34	6.37	3.65	10.00	0.99	3.97	134.14
07-06-2024	3.48	4.23	6.56	4.66	10.00	2.26	4.81	83.54
08-06-2024	2.90	3.08	5.38	5.50	10.00	1.50	4.33	91.91
09-06-2024	3.16	2.11	4.87	6.43	10.00	0.87	4.24	134.17
10-06-2024	3.55	3.65	7.94	5.09	10.00	2.63	5.12	108.80
11-06-2024	3.82	3.76	6.54	6.65	10.00	2.00	5.31	103.53
12-06-2024	3.40	3.96	6.44	6.53	10.00	2.74	5.24	77.36
13-06-2024	3.11	3.36	5.35	5.34	10.00	1.20	4.40	79.97
14-06-2024	2.77	2.83	6.63	4.89	10.00	1.50	4.37	78.28
15-06-2024	3.85	3.59	8.17	7.55	10.00	2.00	5.93	118.38
16-06-2024	4.64	3.52	7.45	10.00	10.00	2.00	6.58	118.54
17-06-2024	5.29	5.73	9.20	10.00	10.00	1.99	7.77	104.02
18-06-2024	5.70	3.09	7.25	10.00	10.00	1.00	6.58	94.10
19-06-2024	4.88	3.66	8.78	10.00	10.00	1.76	6.99	118.49
20-06-2024	0.96	2.04	7.09	3.76	10.00	0.50	3.62	114.35
21-06-2024	3.09	3.05	7.26	5.75	10.00	1.70	4.90	119.36
22-06-2024	3.74	3.52	7.49	5.89	10.00	2.66	5.24	119.05
23-06-2024	3.16	3.00	6.29	6.13	10.00	1.89	4.76	120.45
24-06-2024	3.76	3.67	7.37	7.15	10.00	2.76	5.62	116.79
25-06-2024	3.35	3.81	7.78	7.33	10.00	2.70	5.75	104.00
26-06-2024	3.84	3.45	7.60	7.82	10.00	2.50	5.83	108.58
27-06-2024	1.85	1.54	5.52	6.86	10.00	0.49	4.13	103.11
28-06-2024	2.25	1.93	6.23	5.15	10.00	0.59	4.00	87.75
29-06-2024	3.33	2.42	3.84	3.63	6.25	1.60	3.28	97.47
30-06-2024	1.71	1.63	3.12	2.86	4.00	0.50	2.37	102.27
Maximum	5.70	5.73	9.20	10.00	10.00	2.98	7.77	134.17
Minimum	0.96	1.54	3.12	2.86	4.00	0.49	2.37	77.36
Average	3.34	3.38	6.58	6.40	9.68	1.71	5.05	107.08

MCP: Market Clearing Price (₹/kWh)

FSV: Final Scheduled Volume (MU)

Comparison of MCP w.r.t. Purchase Bid for 2,880 Time Blocks during the month of June, 2024 under RTM



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
01-06-2024	21:00 - 21:15	1.81	00:00 - 00:15	10.00	00:00 - 00:15	0.68	18:00 - 18:15	0.99
02-06-2024	17:00 - 17:15	1.68	21:30 - 21:45	10.00	22:45 - 23:00	0.70	18:00 - 18:15	1.00
03-06-2024	14:30 - 14:45	1.93	00:00 - 00:15	10.00	22:15 - 22:30	0.78	18:00 - 18:15	2.50
04-06-2024	02:45 - 03:00	1.83	00:00 - 00:15	10.00	08:30 - 08:45	0.79	08:00 - 08:15	2.98
05-06-2024	23:30 - 23:45	2.09	00:00 - 00:15	10.00	10:45 - 11:00	0.75	08:00 - 08:15	1.50
06-06-2024	00:00 - 00:15	2.04	20:15 - 20:30	10.00	13:30 - 13:45	0.91	10:00 - 10:15	0.99
07-06-2024	14:30 - 14:45	1.72	20:30 - 20:45	10.00	02:30 - 02:45	0.45	00:00 - 00:15	2.26
08-06-2024	16:00 - 16:15	1.55	00:00 - 00:15	10.00	03:45 - 04:00	0.38	10:00 - 10:15	1.50
09-06-2024	13:45 - 14:00	2.44	00:00 - 00:15	10.00	01:15 - 01:30	0.72	11:00 - 11:15	0.87
10-06-2024	13:00 - 13:15	2.02	00:00 - 00:15	10.00	02:30 - 02:45	0.57	13:15 - 13:30	2.63
11-06-2024	13:15 - 13:30	1.51	00:00 - 00:15	10.00	04:00 - 04:15	0.72	13:00 - 13:15	2.00
12-06-2024	22:45 - 23:00	1.27	00:00 - 00:15	10.00	05:30 - 05:45	0.39	05:15 - 05:30	2.74
13-06-2024	21:30 - 21:45	1.28	00:00 - 00:15	10.00	07:15 - 07:30	0.51	18:00 - 18:15	1.20
14-06-2024	14:45 - 15:00	1.12	20:30 - 20:45	10.00	01:30 - 01:45	0.37	18:00 - 18:15	1.50
15-06-2024	17:30 - 17:45	2.03	00:00 - 00:15	10.00	00:15 - 00:30	0.51	11:00 - 11:15	2.00
16-06-2024	14:45 - 15:00	1.87	00:00 - 00:15	10.00	23:00 - 23:15	0.38	12:30 - 12:45	2.00
17-06-2024	18:00 - 18:15	1.92	00:00 - 00:15	10.00	00:00 - 00:15	0.43	07:45 - 08:00	1.99
18-06-2024	01:15 - 01:30	1.41	00:00 - 00:15	10.00	08:15 - 08:30	0.51	18:15 - 18:30	1.00
19-06-2024	14:45 - 15:00	2.10	00:00 - 00:15	10.00	08:15 - 08:30	0.77	08:15 - 08:30	1.76
20-06-2024	18:45 - 19:00	1.72	20:00 - 20:15	10.00	16:15 - 16:30	0.85	14:30 - 14:45	0.50
21-06-2024	18:15 - 18:30	1.85	00:00 - 00:15	10.00	22:15 - 22:30	0.86	08:15 - 08:30	1.70
22-06-2024	14:45 - 15:00	2.22	00:00 - 00:15	10.00	04:15 - 04:30	0.70	13:15 - 13:30	2.66
23-06-2024	12:30 - 12:45	2.14	00:00 - 00:15	10.00	19:45 - 20:00	0.84	12:00 - 12:15	1.89
24-06-2024	12:00 - 12:15	1.83	00:00 - 00:15	10.00	22:30 - 22:45	0.69	10:00 - 10:15	2.76
25-06-2024	15:15 - 15:30	1.79	00:00 - 00:15	10.00	22:15 - 22:30	0.47	08:30 - 08:45	2.70
26-06-2024	13:30 - 13:45	1.60	00:00 - 00:15	10.00	19:30 - 19:45	0.69	09:45 - 10:00	2.50
27-06-2024	14:00 - 14:15	1.56	00:00 - 00:15	10.00	08:45 - 09:00	0.68	13:15 - 13:30	0.49
28-06-2024	15:15 - 15:30	1.30	00:00 - 00:15	10.00	04:45 - 05:00	0.47	13:30 - 13:45	0.59
29-06-2024	15:15 - 15:30	1.75	00:00 - 00:15	6.25	02:00 - 02:15	0.52	13:00 - 13:15	1.60
30-06-2024	13:45 - 14:00	1.83	22:15 - 22:30	4.00	05:00 - 05:15	0.49	11:30 - 11:45	0.50

MCP: Market Clearing Price (₹/kWh)

FSV: Final Scheduled Volume (MU)

Sellers and Buyers under Real Time Market (RTM) in June, 2024						
S. No.	Entity Name	Sell		Entity Name	Purchase	
		(MU)	Percent (%)		(MU)	Percent (%)
1	Madhya Pradesh	389.74	12.11%	Rajasthan	511.08	15.88%
2	Chhattisgarh	204.04	6.34%	Punjab	505.66	15.71%
3	Karnataka	180.75	5.62%	Uttar Pradesh	305.39	9.49%
4	Delhi	175.58	5.45%	Telangana	302.47	9.40%
5	Tamil Nadu	167.56	5.21%	West Bengal	191.66	5.95%
6	Bihar	161.67	5.02%	Maharashtra	191.34	5.94%
7	Himachal Pradesh	157.71	4.90%	Tamil Nadu	160.26	4.98%
8	Andhra Pradesh	149.86	4.66%	Odisha	131.49	4.08%
9	Assam	128.38	3.99%	Gujarat	111.21	3.46%
10	West Bengal	111.42	3.46%	Jharkhand	97.30	3.02%
11	Odisha	77.43	2.41%	Andhra Pradesh	89.36	2.78%
12	Haryana	65.05	2.02%	Bihar	89.15	2.77%
13	Telangana	62.82	1.95%	Haryana	85.48	2.66%
14	Punjab	49.49	1.54%	Delhi	53.49	1.66%
15	Maharashtra	49.46	1.54%	Uttarakhand	48.82	1.52%
16	Uttar Pradesh	48.17	1.50%	DVC	33.73	1.05%
17	J&K	47.57	1.48%	Assam	32.48	1.01%
18	Arunachal Pradesh	39.30	1.22%	Kerala	30.52	0.95%
19	Gujarat	29.95	0.93%	Madhya Pradesh	26.19	0.81%
20	RENEW SURYA	29.16	0.91%	Daman & Diu - Dadra &	23.95	0.74%
21	Uttarakhand	28.79	0.89%	Himachal Pradesh	20.37	0.63%
22	MAHAN	28.48	0.88%	BHARAT ALUMINIUM	18.90	0.59%
23	Transition Green	25.63	0.80%	NVVN (SNA) - NEA	17.86	0.55%
24	Adani Power	25.42	0.79%	Manipur	13.04	0.41%
25	NVVN (SNA) -	25.35	0.79%	Jhabua Power	12.33	0.38%
26	Kerala	21.45	0.67%	ArcelorMittal Nippon steel	11.94	0.37%
27	Kameng HEP	19.64	0.61%	Simhapuri Energy Limited	9.76	0.30%
28	Serentica	19.58	0.61%	Karnataka	9.56	0.30%
29	The Tata Power Co	18.56	0.58%	Jindal Power Ltd. Stg-II	8.74	0.27%
30	DVC	17.00	0.53%	Meghalaya	8.44	0.26%
31	Jhabua Power	16.45	0.51%	Tripura	8.12	0.25%
32	MEENAKSHI	16.34	0.51%	Railways	7.38	0.23%
33	Pondicherry	15.85	0.49%	SKS Power	5.63	0.17%
34	ADHUNIK POWER	15.29	0.48%	J&K	5.44	0.17%
35	RKM Power	14.48	0.45%	Jindal Power	4.61	0.14%
36	Jharkhand	14.47	0.45%	Nagaland	4.09	0.13%
37	AD Hydro	13.88	0.43%	Chhattisgarh	3.26	0.10%
38	Sembcorp Energy	13.66	0.42%	MAHAN ENERGEN	3.24	0.10%
39	DGEN Mega Power	13.56	0.42%	Jindal Steel	2.86	0.09%
40	Jindal Power Ltd.	12.31	0.38%	NEA - Bihar STU	2.85	0.09%
41	NREL-Dayapar	11.85	0.37%	Adani Power Limited-	2.75	0.09%
42	Sorang HEP,	11.63	0.36%	NEA-NR	2.49	0.08%
43	MAHAN	11.55	0.36%	Chandigarh	2.34	0.07%
44	ADANI WIND	11.53	0.36%	Goa SR	2.31	0.07%
45	NTPC Gadawara	11.51	0.36%	Goa WR	2.01	0.06%
46	ADANI	11.21	0.35%	MB Power	1.83	0.06%
47	Jindal Power	11.06	0.34%	Sikkim	1.14	0.04%

48	Tripura	10.99	0.34%	Adani Power Limited -	0.86	0.03%
49	Neyveli New	10.34	0.32%	Sainj HEP	0.70	0.02%
50	BALCO 2	10.10	0.31%	Ratnagiri Gas & Power	0.66	0.02%
51	TPSL Banderwala	9.87	0.31%	MAHAN ENERGEN	0.60	0.02%
52	RENEW SURYA	9.55	0.30%	Gandhar	0.47	0.01%
53	SKS Power	9.37	0.29%	Maruti Clean Coal Power	0.46	0.01%
54	Adani Power	9.00	0.28%	Kawas	0.42	0.01%
55	Karcham Wangtoo	8.68	0.27%	Pondicherry	0.17	0.01%
56	Ramagundam Stg-1	8.65	0.27%	ACBIL	0.10	0.003%
57	Khargone STPP	8.49	0.26%	Dhariwal ISTS	0.04	0.001%
58	Serentica	8.47	0.26%	Arunachal Pradesh	0.02	0.001%
59	MB Power	8.46	0.26%			
60	DB Power	8.35	0.26%			
61	NTPC Kudgi	8.20	0.25%			
62	Barh Stg-2	8.10	0.25%			
63	Farakka	7.89	0.25%			
64	Kahalgaon-II	7.44	0.23%			
65	Onevolt Energy	7.02	0.22%			
66	Sikkim	6.93	0.22%			
67	Rihand-I	6.86	0.21%			
68	Goa WR	6.84	0.21%			
69	Rajasthan	6.84	0.21%			
70	Grian Energy Private	6.74	0.21%			
71	Singrauli	6.68	0.21%			
72	NTPC Telangana	6.66	0.21%			
73	Rihand-III	6.48	0.20%			
74	Manipur	6.08	0.19%			
75	Rihand-II	6.03	0.19%			
76	Ostro Kannada	5.99	0.19%			
77	Singoli Bhagwati	5.79	0.18%			
78	Simhapuri Energy	5.64	0.18%			
79	Jindal Steel	5.50	0.17%			
80	Sasan UMPP	5.41	0.17%			
81	Nabinagar Power	5.40	0.17%			
82	Bongaigaon	5.05	0.16%			
83	NLC	4.93	0.15%			
84	Palatana	4.62	0.14%			
85	ACBIL	4.57	0.14%			
86	Adani Green Energy	4.49	0.14%			
87	Renew Surya Ravi	4.40	0.14%			
88	Amplus Ages	4.38	0.14%			
89	Sembcorp Gayatri	4.37	0.14%			
90	IGSTPS JHAJJAR	4.29	0.13%			
91	Dadri TPS	4.27	0.13%			
92	RENEW SURYA	4.18	0.13%			
93	Meghalaya	4.16	0.13%			
94	Mouda Stg-2	4.02	0.13%			
95	Tanda Stg-2	3.98	0.12%			
96	JITPL	3.96	0.12%			
97	Sainj HEP	3.94	0.12%			
98	NTPL	3.60	0.11%			
99	Basochhu	3.41	0.11%			

100	Transition Energy	3.40	0.11%			
101	Dadri Stg-2	3.31	0.10%			
102	AGBPP	3.27	0.10%			
103	Serentica	3.22	0.10%			
104	NTECL Vallur	2.96	0.09%			
105	Maithon Power	2.93	0.09%			
106	Kahalgaon	2.77	0.09%			
107	Transition	2.73	0.08%			
108	Mouda Stg-1	2.73	0.08%			
109	Simhadri Stg-2	2.58	0.08%			
110	Amp Energy Green	2.50	0.08%			
111	Unchahar-IV	2.44	0.08%			
112	Nagaland	2.35	0.07%			
113	Simhadri Stg-1	2.31	0.07%			
114	GMR Warora	2.29	0.07%			
115	Sipat Stg-1	2.23	0.07%			
116	Vindhyachal stg-1	2.20	0.07%			
117	Unchahar-II	2.05	0.06%			
118	Korba	1.97	0.06%			
119	NTPC Lara	1.94	0.06%			
120	Barh STPS Stg - I	1.86	0.06%			
121	RENEW SURYA	1.73	0.05%			
122	DHARIWAL STU	1.73	0.05%			
123	NTPC Sholapur	1.72	0.05%			
124	Ramagundam Stg-3	1.71	0.05%			
125	Farakka Stg 3	1.70	0.05%			
126	Shree Cement	1.65	0.05%			
127	Nikachhu	1.61	0.05%			
128	NEA-NR	1.52	0.05%			
129	Lanco Budhil	1.49	0.05%			
130	Vindhyachal stg-4	1.49	0.05%			
131	Vindhyachal stg-3	1.47	0.05%			
132	AGTPP	1.46	0.05%			
133	Vindhyachal stg-2	1.43	0.04%			
134	ADANI SOLAR	1.42	0.04%			
135	RENEW SURYA	1.37	0.04%			
136	NSPCL Bhilai	1.27	0.04%			
137	Unchahar-I	1.21	0.04%			
138	Kopili 2 IN	1.16	0.04%			
139	Sipat Stg-2	1.16	0.04%			
140	ADANI SOLAR	1.16	0.04%			
141	TRN Energy	1.14	0.04%			
142	Maruti Clean Coal	1.09	0.03%			
143	Vindhyachal stg-5	1.02	0.03%			
144	KBUNL(MTPS-II)	0.95	0.03%			
145	RENEW SURYA	0.95	0.03%			
146	IND BARATH	0.90	0.03%			
147	ADANI	0.87	0.03%			
148	NTPC North	0.86	0.03%			
149	NLC TPS-II Stg-2	0.83	0.03%			
150	Ayana Renewable	0.81	0.03%			
151	Unchahar-III	0.71	0.02%			

152	WIND FIVE	0.65	0.02%			
153	Adept Renewable	0.61	0.02%			
154	ADANI SOLAR	0.61	0.02%			
155	Jorethang	0.59	0.02%			
156	Chandigarh	0.57	0.02%			
157	Dhariwal ISTS	0.57	0.02%			
158	Jaypee Nigrie	0.56	0.02%			
159	NTPP BRBCL	0.55	0.02%			
160	GMR Kamalanga	0.42	0.01%			
161	Daman & Diu -	0.42	0.01%			
162	NLC TPS-II	0.41	0.01%			
163	IL&FS	0.35	0.01%			
164	Tashiding HEP	0.33	0.01%			
165	NLC TPS-II Expn	0.30	0.01%			
166	Mizoram	0.22	0.01%			
167	Chuzachen	0.17	0.01%			
168	Darlipalli	0.16	0.01%			
169	Adani Green Energy	0.13	0.004%			
170	Korba Stg 3	0.13	0.004%			
171	NTPC Simhadri 25	0.11	0.003%			
172	ADANI SOLAR	0.08	0.003%			
173	Goa SR	0.05	0.002%			
174	Nani Virani Wind	0.03	0.001%			
175	ADANI WIND	0.03	0.001%			
176	TPSL 200MW	0.03	0.001%			
177	Continuum Power	0.01	0.0003%			
Total Volume of top 10		1,826.70	56.75%	Total Volume of top 10	2,507.86	77.91%
Total Volume in PXs		3,218.84		Total Volume in PXs	3,218.84	

Cross Border Electricity Transactions under Day Ahead Market (DAM) in IEX with Nepal and Bhutan during the month of June, 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	01-06-2024	2.08	1.08	-	0.18
2	02-06-2024	2.08	-	-	0.13
3	03-06-2024	2.21	-	-	0.19
4	04-06-2024	2.21	-	-	0.22
5	05-06-2024	2.21	0.40	-	-
6	06-06-2024	2.21	-	-	0.21
7	07-06-2024	2.20	-	-	0.13
8	08-06-2024	2.17	0.33	-	0.09
9	09-06-2024	2.24	-	-	-
10	10-06-2024	2.23	-	-	-
11	11-06-2024	2.23	-	-	-
12	12-06-2024	2.23	-	-	-
13	13-06-2024	2.23	-	-	0.16
14	14-06-2024	2.70	0.85	-	0.18
15	15-06-2024	2.70	2.71	-	0.35
16	16-06-2024	0.65	1.62	-	0.56
17	17-06-2024	0.63	2.97	-	0.59
18	18-06-2024	0.61	3.16	-	0.54
19	19-06-2024	0.63	3.16	-	0.55
20	20-06-2024	0.63	4.53	-	0.57
21	21-06-2024	-	7.70	-	0.30
22	22-06-2024	-	8.92	-	0.40
23	23-06-2024	-	7.09	-	0.52
24	24-06-2024	-	7.37	-	0.63
25	25-06-2024	-	7.28	-	0.91
26	26-06-2024	-	7.71	-	0.76
27	27-06-2024	-	7.71	-	0.91
28	28-06-2024	-	8.00	-	0.77
29	29-06-2024	-	9.17	-	0.55
30	30-06-2024	-	9.07	-	0.78
Total		37.08	100.83	0.00	11.18
Grand Total		149.09			

-: No transaction took place

Note: Cross Border Transactions of Electricity of **149.09 MU** (i.e. **37.08 MU bought by Nepal, 100.83 sold by Nepal, 11.18 MU sold by Bhutan**) happened during June, 2024 in IEX, which is included under DAM Volume of June, 2024 in IEX. No Cross Border Import Transactions of Electricity happened with **Bhutan** for the month of June, 2024 in IEX under DAM.

Cross Border Electricity Transactions under Real Time Market (RTM) in IEX with Nepal and Bhutan during the month of June, 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	01-06-2024	0.07	1.72	-	-
2	02-06-2024	1.25	1.74	-	-
3	03-06-2024	-	2.73	-	-
4	04-06-2024	0.70	0.48	-	-
5	05-06-2024	0.36	1.96	0.20	-
6	06-06-2024	0.45	0.60	-	-
7	07-06-2024	-	2.81	-	-
8	08-06-2024	-	1.18	-	-
9	09-06-2024	-	2.60	-	-
10	10-06-2024	0.05	1.79	-	-
11	11-06-2024	0.38	0.82	-	-
12	12-06-2024	1.01	0.57	0.13	-
13	13-06-2024	1.95	1.17	-	-
14	14-06-2024	1.37	-	0.29	-
15	15-06-2024	1.06	-	-	-
16	16-06-2024	1.30	-	0.26	-
17	17-06-2024	0.49	-	0.13	-
18	18-06-2024	1.58	-	0.08	-
19	19-06-2024	4.41	-	0.09	-
20	20-06-2024	4.63	-	0.08	-
21	21-06-2024	2.13	0.29	0.37	-
22	22-06-2024	0.12	0.20	0.08	-
23	23-06-2024	0.53	0.61	0.12	-
24	24-06-2024	-	0.96	0.48	-
25	25-06-2024	0.63	0.58	0.31	-
26	26-06-2024	0.93	0.38	0.39	-
27	27-06-2024	0.58	0.04	0.06	-
28	28-06-2024	0.22	-	0.14	-
29	29-06-2024	0.29	-	0.12	-
30	30-06-2024	0.43	-	0.09	-
Total		26.92	23.23	3.42	0
Grand Total		53.57			

-: No transaction took place

Note: Cross Border Transactions of Electricity of 53.57 MU (i.e. 26.92 MU bought by Nepal, 23.23 MU sold by Nepal, 3.42 MU bought by Bhutan) happened during June, 2024 in IEX, which is included under RTM Volume of June, 2024 in IEX. No Cross Border export Transactions of Electricity happened with **Bhutan** for the month of June, 2024 in IEX under RTM.

Analysis for change in trend of Final Scheduled Volume under DAM on 5th Sunday of June, 2024 (i.e. 30th June, 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 June, 2024, it is observed that on fifth Sunday (30th June, 2024), FSV showed increasing trend in comparison to fifth Saturday (29th June, 2024).

- (i) On fifth Sunday (30th June, 2024), although there was decrease in purchase on power exchange by some of the States in comparison to fifth Saturday (29th June, 2024) by **21.98 MU** [i.e. Gujarat (16.20 MU), Tamil Nadu (2.30 MU), Daman & Diu - Dadra & Nagar Haveli (1.84 MU), DVC (0.86 MU) and Chandigarh (0.45 MU), etc.], there was also increase in purchase on power exchange by some of the States by **26.46 MU** [i.e. Telangana (10.18 MU), Punjab (6.78 MU), Andhra Pradesh (2.32 MU), Maharashtra (1.25 MU) and Madhya Pradesh (1.18 MU), etc.]. This resulted in an overall increase in FSV by **4.49 MU** on Sunday (30th June, 2024) as compared to Saturday (29th June, 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).