



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, Tower B, World Trade Centre, Nauroji Nagar, New Delhi- 110029

विषय: अप्रैल, 2024 माह की मार्केट मॉनिटरिंग रिपोर्ट।

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

महोदय

Sir,

अप्रैल, 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 April, 2024 is enclosed herewith for kind information and perusal.

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

- i. अप्रैल, 2024 माह में देश में कुल 143,669 MU विद्युत का कारोबार किया गया, जिसमें से 69,949 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 April, 2024 a total of 143,669 MU of electricity was transacted in the country out of which 69,949 MU was transacted through ISTS, and the remaining through state controlled generating stations through Intra State Transmissions System.
- ii. अल्पावधि मार्केट के अंतर्गत कुल 20,388 MU का कारोबार किया गया था, जिसमें से

11,695 MU पावर एक्सचेंजों के माध्यम से कारोबार किया गया और शेष द्विपक्षीय कारोबार और विचलन (deviations) के रूप में हुआ। इस प्रकार अल्पावधि कारोबार, अप्रैल, 2024 माह में ट्रेड की गई विद्युत की कुल मात्रा का 14.19 % था और 8.14 % पावर एक्सचेंजों के माध्यम से रहा। A total of 20,388 MU was transacted under Short Term Market, out of which 11,695 MU was transacted through Power Exchanges and remaining happened as bilateral transactions & deviations. Thus, the total short term trade in April, 2024 was 14.19 % of total volume of electricity traded in April, 2024 and 8.14 % was through Power Exchanges.

- iii. यदि हम अंतर्राज्यीय पारेषण प्रणाली (ISTS) के माध्यम से आपूर्ति की गई विद्युत के संबंध में इन कारोबारों की तुलना करते हैं, तो अल्पावधि कारोबार अंतर्राज्यीय पारेषण प्रणाली (ISTS) कारोबार का लगभग 29.15 % रहा, जिसमें से पावर एक्सचेंजों के माध्यम से कारोबार 16.72 % रहा। If we compare these transactions with respect to the electricity supplied through ISTS, the short term transactions constitutes about 29.15 % of ISTS transactions, out of which transaction through the power exchanges constitutes 16.72 %.

भवदीय/ Yours faithfully,

**Signed by Vikram Singh**

**Date: 28-06-2024 11:04:50**

( विक्रम सिंह / Vikram Singh )

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

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7. COO, Hindustan Power Exchange Limited (HPX), World Trade Tower, 8th Floor, Sector 16, Noida, Uttar Pradesh - 201301.

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





सत्यमेव जयते

# मासिक मार्केट मॉनिटरिंग रिपोर्ट - अप्रैल, 2024

## Monthly Market Monitoring Report

April, 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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**अप्रैल, 2024 की मासिक मार्केट  
मॉनिटरिंग रिपोर्ट का सारांश**

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



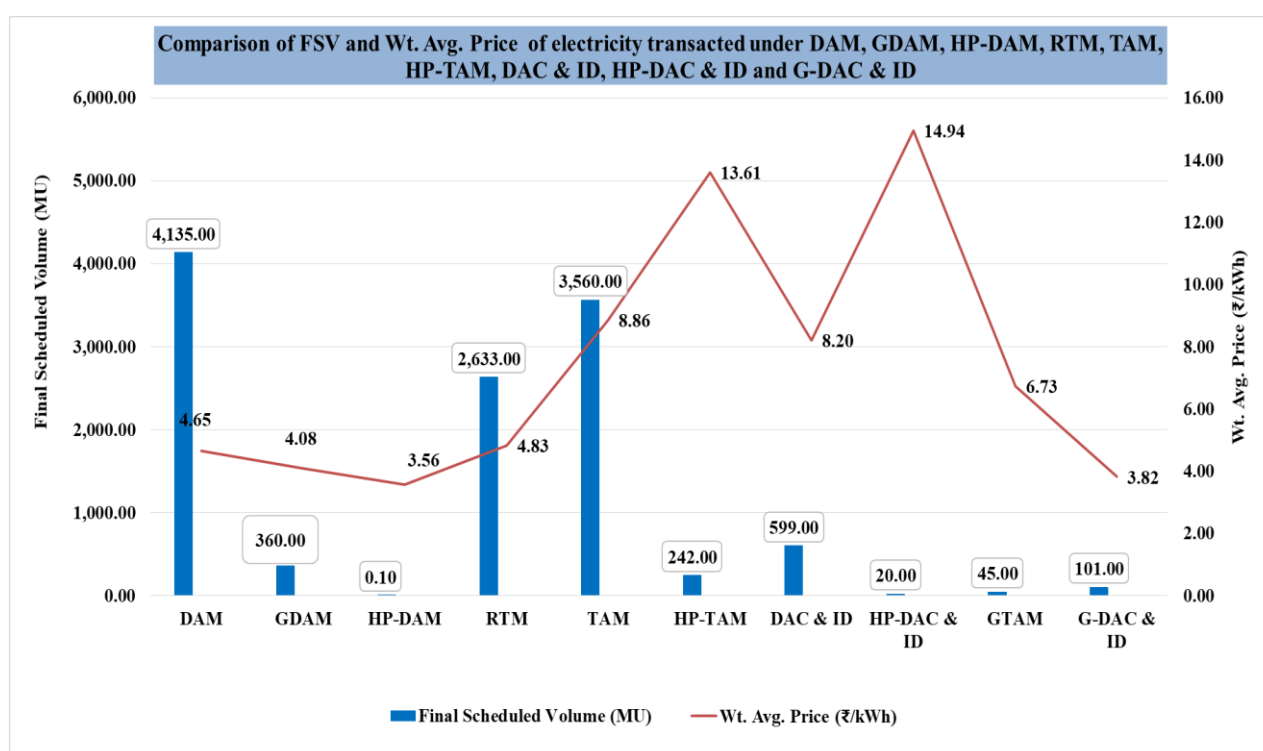
## अप्रैल, 2024 माह के लिए सारांश Summary for Month: April, 2024

### भारत में विद्युत एक्सचेंजों पर विद्युत के व्यापार का सारांश

#### Summary of Electricity Transactions on Power Exchanges in India

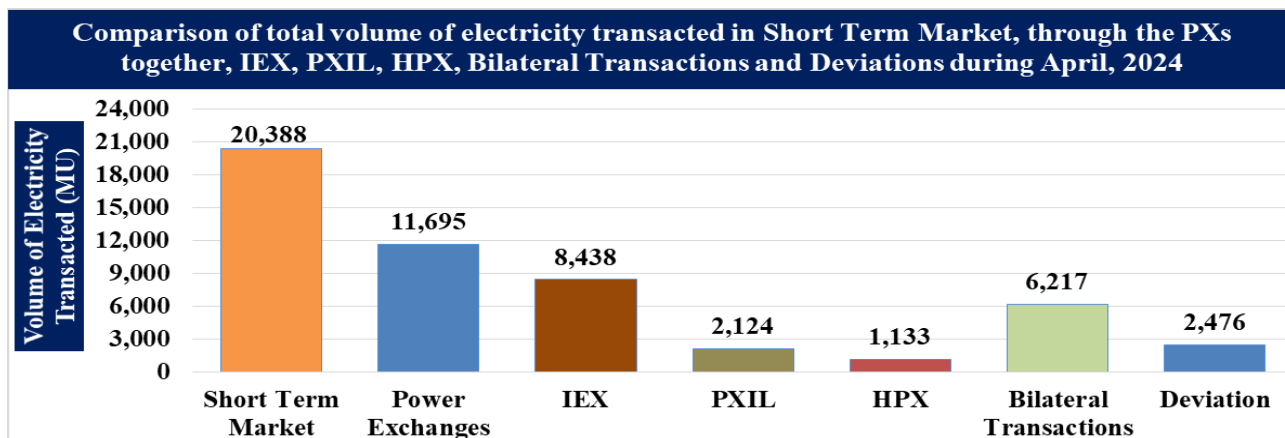
- अप्रैल, 2024 के दौरान विद्युत एक्सचेंजों (यानी आईईएक्स, पीएक्सआईएल और एचपीएक्स) के माध्यम से कुल **11,695 MU** विद्युत का कारोबार किया गया। विद्युत की यह मात्रा डिलीवरी की तारीख के आधार पर है और इसमें DAM, GDAM, HP-DAM, RTM, TAM, HP-TAM, DAC & ID, HP-DAC & ID, GTAM और G-DAC & ID मार्केट खंडों के माध्यम से कारोबार शामिल हैं।

A total volume of **11,695 MU** electricity was transacted through power exchanges i.e. IEX, PXIL & HPX, during the month of April, 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 **6,217 MU** विद्युत का कारोबार किया गया और **2,476 MU** को विचलन के रूप में लेनदेन किया गया। इस प्रकार कुल **20,388 MU** विद्युत का कारोबार अल्पावधि व्यापार के रूप में किया गया था। अप्रैल, 2024 के महीने में देश में कुल **143,669 MU** विद्युत की आपूर्ति की गई थी, इस प्रकार अप्रैल, 2024 माह में कारोबार की गई विद्युत की कुल मात्रा में अल्पावधि बाजार का हिस्सा **14.19 %** था।

Under the Bilateral trade, a total of **6,217 MU** of electricity was transacted and **2,476 MU** was transacted as deviation from schedule. Thus, a total of **20,388 MU** of electricity was transacted as short term trade (Power Exchange + Bilateral trade + deviation from schedule). In April, 2024, a total of **143,669 MU** of electricity was supplied in the country, thus, the share of short term market in the total volume of electricity supplied in April, 2024 was **14.19 %**.



- अप्रैल, 2024 के दौरान संचरण जाम की कुल मात्रा 57.15 MU थी, जो की विद्युत एक्सचेंजों में कारोबार की गई विद्युत की कुल मात्रा का केवल 0.49 % है और अप्रैल, 2024 के महीने के दौरान आपूर्ति की गई कुल ऊर्जा का 0.04 % है।

The total volume affected by the transmission congestion during the month of April, 2024 was **57.15 MU** which is only 0.49 % of the total volume of electricity transacted in the power exchanges and 0.04 % of total energy supplied during the month of April, 2024.

DAM में 16 दिन अर्थात् दिनांक 1 से 16 अप्रैल, 2024, RTM में 14 दिन अर्थात् दिनांक 1 से 3, 5 से 13, 25 एवं 26 अप्रैल, 2024, TAM में 10 दिन अर्थात् दिनांक 21 से 30 अप्रैल, 2024 तथा DAC & ID में 7 दिन अर्थात् दिनांक 4 से 5, 9 से 13 अप्रैल, 2024 को संचरण जाम देखा गया। जबकि HP-DAM, GDAM, HP-TAM, HP-DAC & ID, GTAM और G-DAC & ID में कोई संचरण जाम नहीं देखा गया। अप्रैल, 2024 माह के महीने में रिपोर्ट की गई वास्तविक समय में विद्युत कटौती की कुल मात्रा केवल 98.21 MU थी।

Transmission congestion was observed in DAM on **16** days i.e. 1<sup>st</sup> to 16<sup>th</sup> April, 2024, in RTM on **14** days i.e. 1<sup>st</sup> to 3<sup>rd</sup>, 5<sup>th</sup> to 13<sup>th</sup>, 25<sup>th</sup> and 26<sup>th</sup> April, 2024, in TAM on **10** days i.e. 21<sup>st</sup> to 30<sup>th</sup> April, 2024 and in DAC & ID on 7 days i.e. 04<sup>th</sup> to 05<sup>th</sup>, 9<sup>th</sup> to 13<sup>th</sup> April, 2024. Whereas, there was no impact of congestion in HP-DAM, GDAM, HP-TAM, HP-DAC & ID, GTAM and G-DAC & ID. The total volume of real time curtailment reported in the month of April, 2024 was only **98.21 MU**.

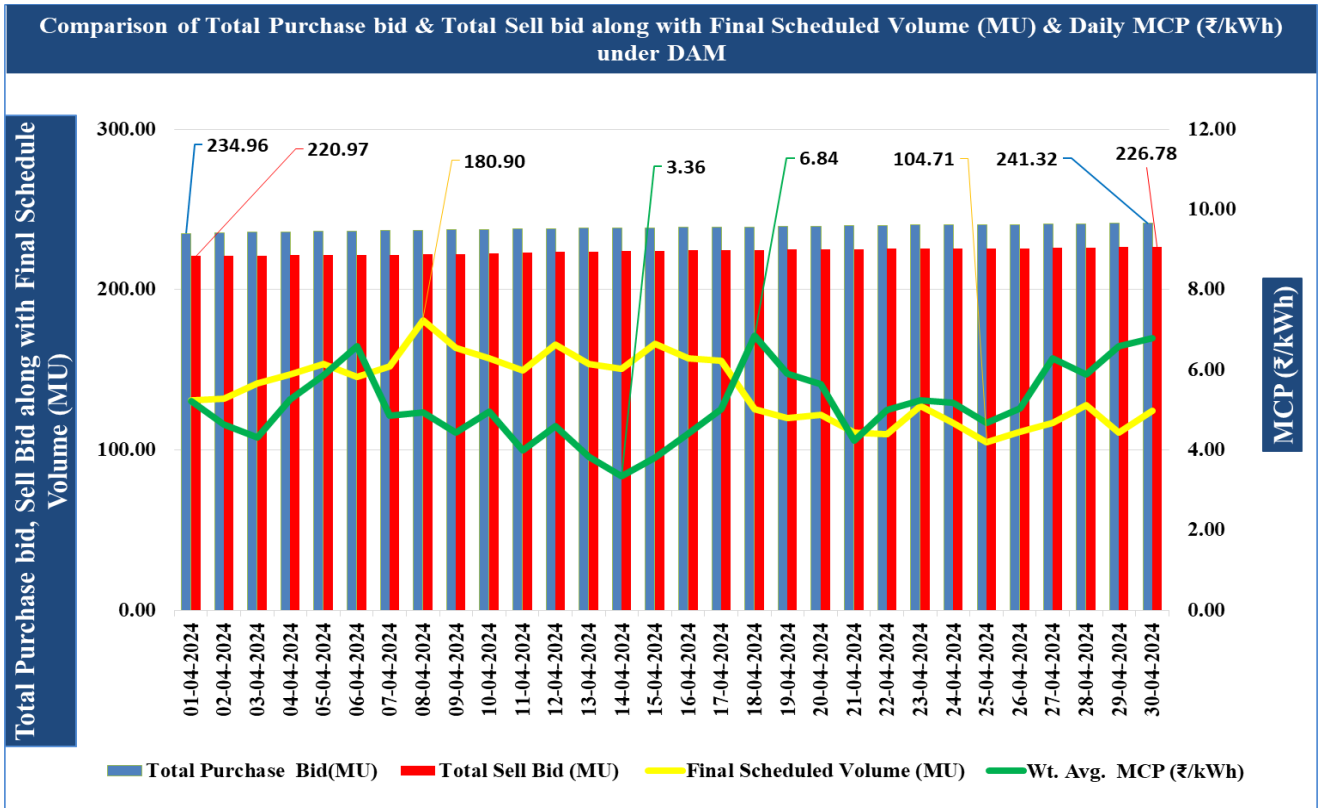
- अप्रैल, 2024 माह के दौरान अंतर्राज्यीय पारेषण प्रणाली (ISTS) में निर्धारित अनुसूचित विद्युत की कुल मात्रा **69,949 MU** थी। अप्रैल, 2024 के महीने में अल्पावधि बाजार में विद्युत का लेन-देन अंतर्राज्यीय पारेषण प्रणाली (ISTS) के माध्यम से अनुसूचित की गई कुल विद्युत की मात्रा का 29.15 % रहा।

The total volume of electricity scheduled through ISTS during the month of April, 2024 was **69,949 MU**. The total volume of electricity transacted in the short term market was **29.15 %** of total volume schedule at ISTS in April, 2024.

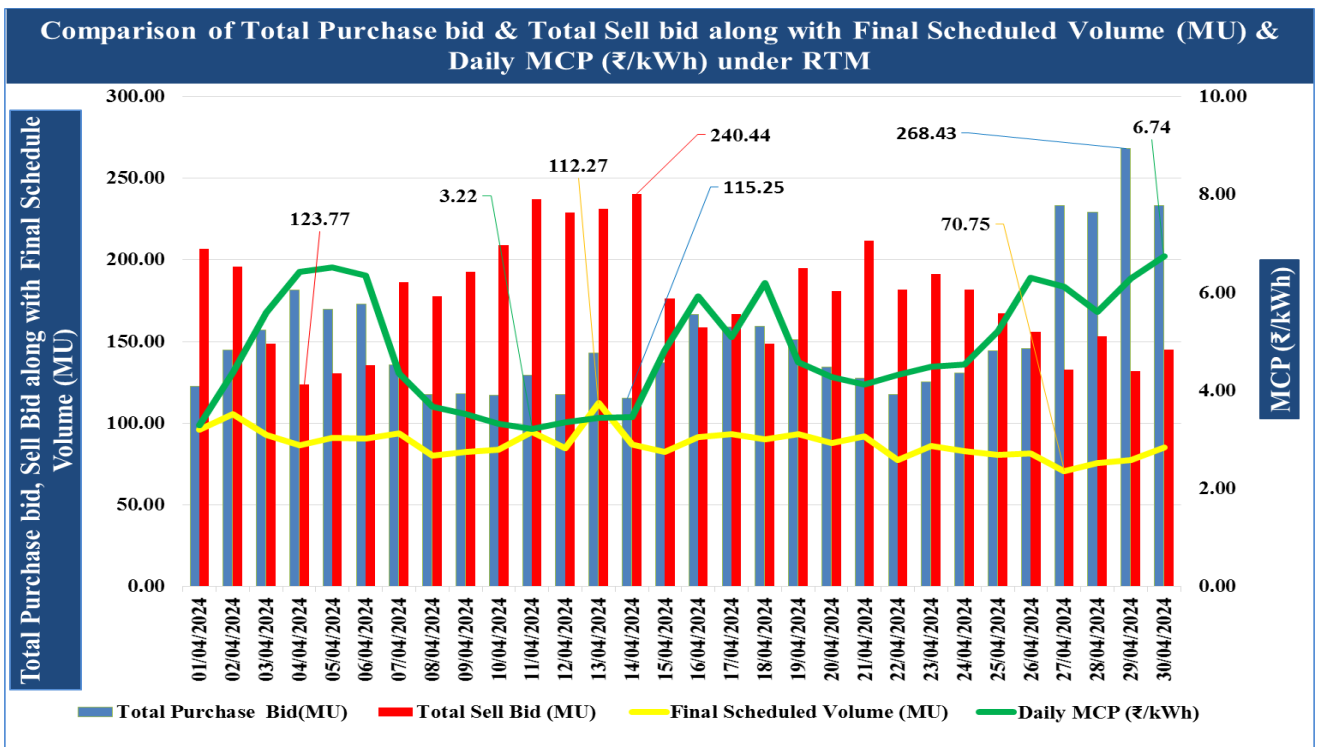
- अप्रैल, 2024 माह के दौरान DAM और RTM में विद्युत की खरीद और बिक्री बोलियों, अंतिम अनुसूचित मात्रा और दैनिक औसत MCP की भिन्नता निम्नलिखित चित्रों में दर्शाई गई है:

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

## DAM Volume



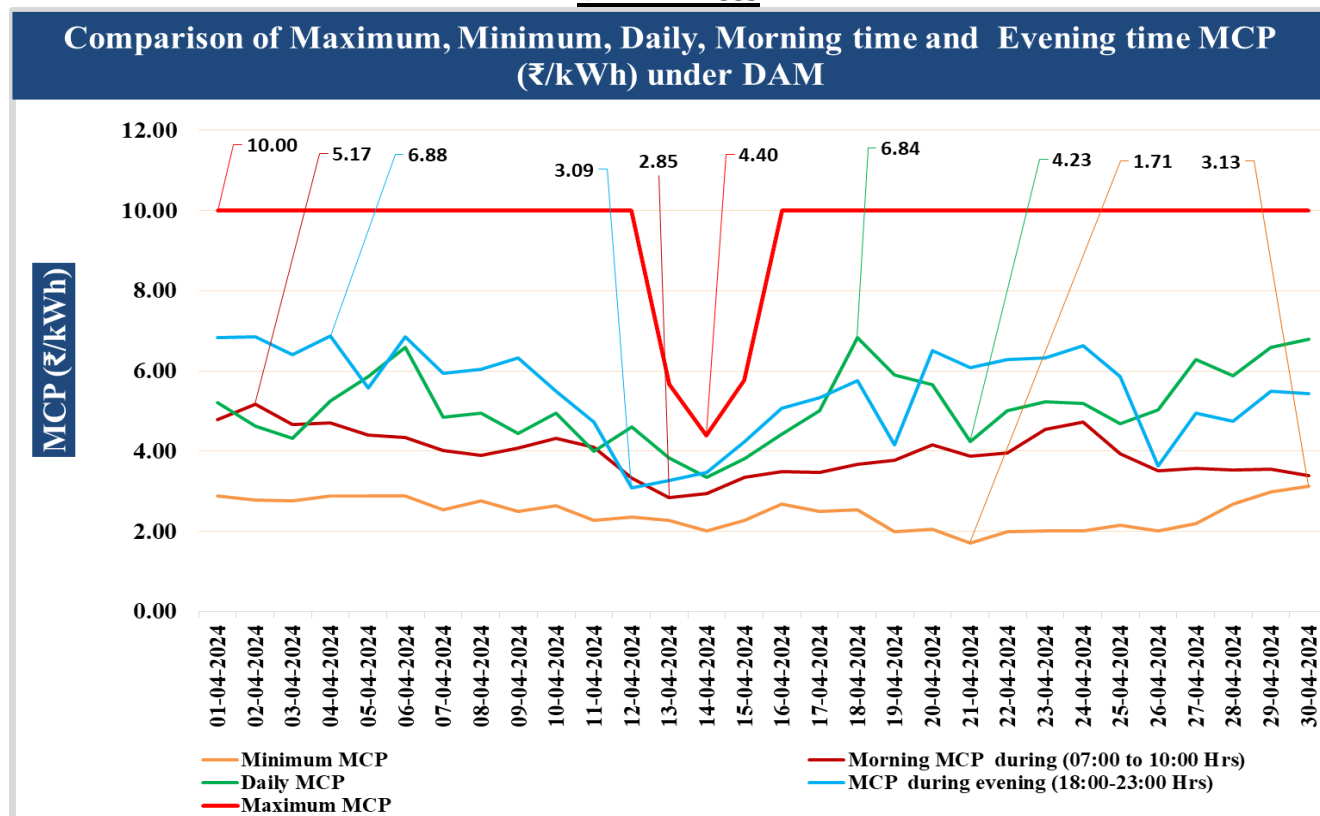
## RTM Volume



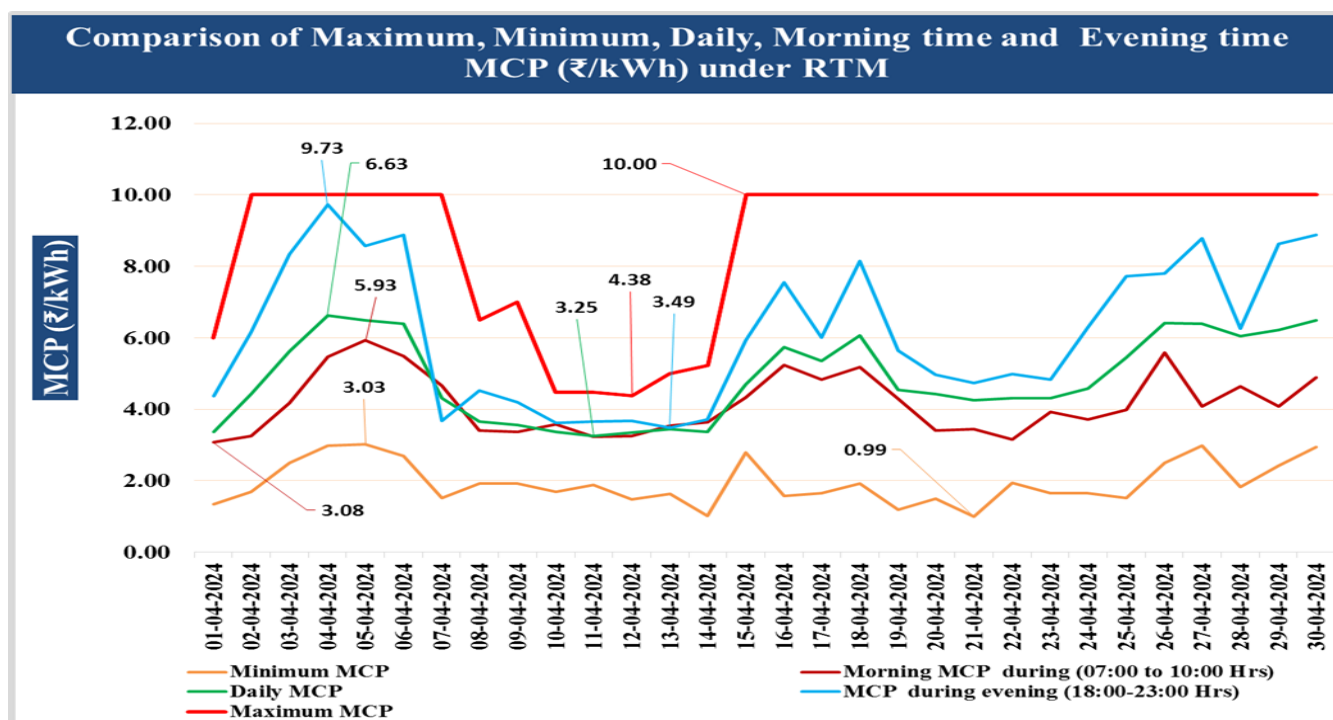
- अप्रैल, 2024 माह के दौरान DAM और RTM में अधिकतम, न्यूनतम, दैनिक, सुबह और शाम के समय MCP की भिन्नता निम्नलिखित चित्रों में दिखाई गई है:

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

### DAM Prices



### RTM Prices



# **MARKET MONITORING REPORT**

## **DETAILS**



## Electricity Transactions on Power Exchanges in India

### **1. Day Ahead Market (DAM)**

*The volume of electricity transacted under DAM was **4,135.27 MU** at a Wt. Avg. Price of ₹ **4.65/kWh** in April, 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 April, 2024 was **4,135.27 MU**. The total energy supplied in the country during the month of April, 2024 was 143,669 MU. Thus, the volume of electricity transacted on the power exchanges under DAM during April, 2024 was 2.88 % of the total energy supplied in the country. Comparing with the total volume of electricity transacted under DAM during last month March, 2024 i.e. **4,658.63 MU** which was 3.36 % of the total energy supplied (138,614 MU) in the country during March, 2024. Similarly, the total volume of electricity transacted under DAM during previous year i.e. April, 2023, was **4,408.93 MU** which was 3.34 % of the total energy supplied (132,151 MU) in the country during April, 2023.
- 1.2.** The volume of electricity transacted on IEX, PXIL and HPX during April, 2024 were **4131.42 MU**, **3.85 MU**, respectively and no transaction of electricity took place in HPX. 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 during April, 2023 were **4408.93 MU** and no transaction of electricity took place in PXIL & HPX during April, 2023.
- 1.3.** The DAM volume for April, 2024 in IEX is inclusive of Cross Border Transactions of Electricity with Nepal and Bhutan (details given at **Annexure XII**), which was **326.66 MU** (i.e. 205.26 MU bought by Nepal, 121.40 MU bought by Bhutan).
- 1.4.** The Average Market Clearing Price (MCP) on IEX during the month of April, 2024 was ₹ **4.65/kWh**, which shows an increase of 17.42 % & decrease of 8.46 % when compared with Wt. Avg. MCP's for the month of March, 2024 and April, 2023, which were ₹ **3.96/kWh** and ₹ **5.08/kWh**, respectively. On PXIL, the Wt. Avg. MCP during the month of April, 2024 was ₹ **10.00/kWh**, which shows an increase of 73.01 % when compared with Wt. Avg. MCP's for the month of March, 2024, which was ₹ **5.78/kWh** and no transaction of electricity took place in PXIL during April, 2023. On HPX, no transaction of electricity took place in HPX during April, 2024.
- 1.5.** The Comparison of Final Scheduled Volume (FSV) and Wt. Avg. Price of IEX, PXIL and HPX under DAM for April, 2024 vs March, 2024 and April, 2023 is shown below as **Figure-1, Figure-2 & Figure-3:**

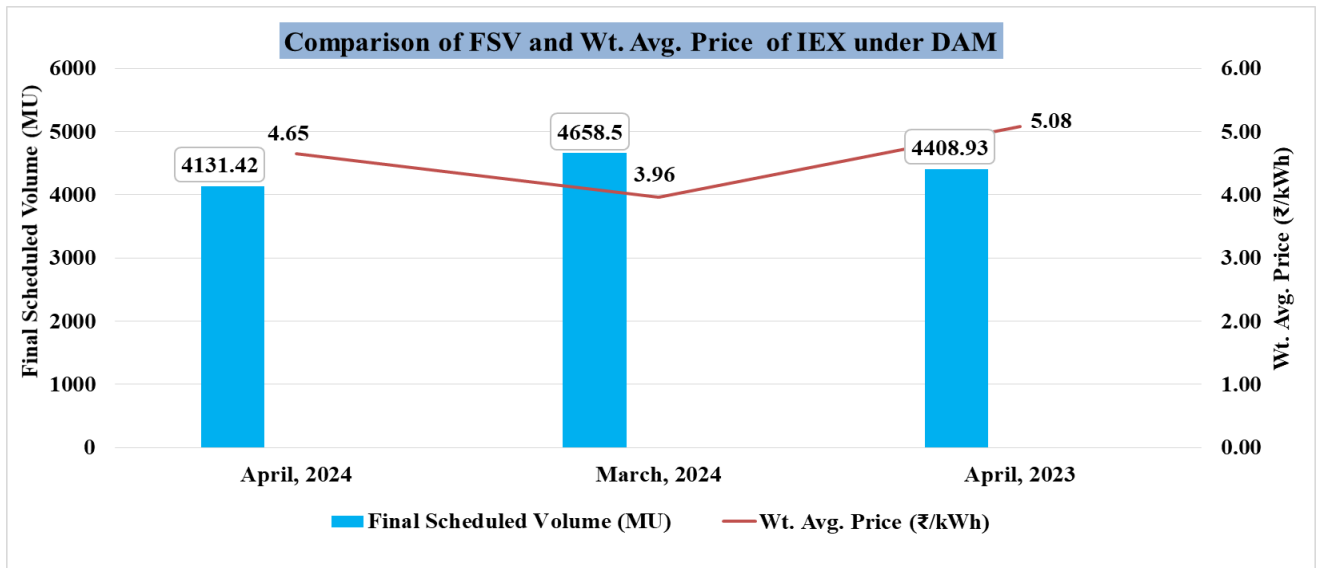


**Figure-1**

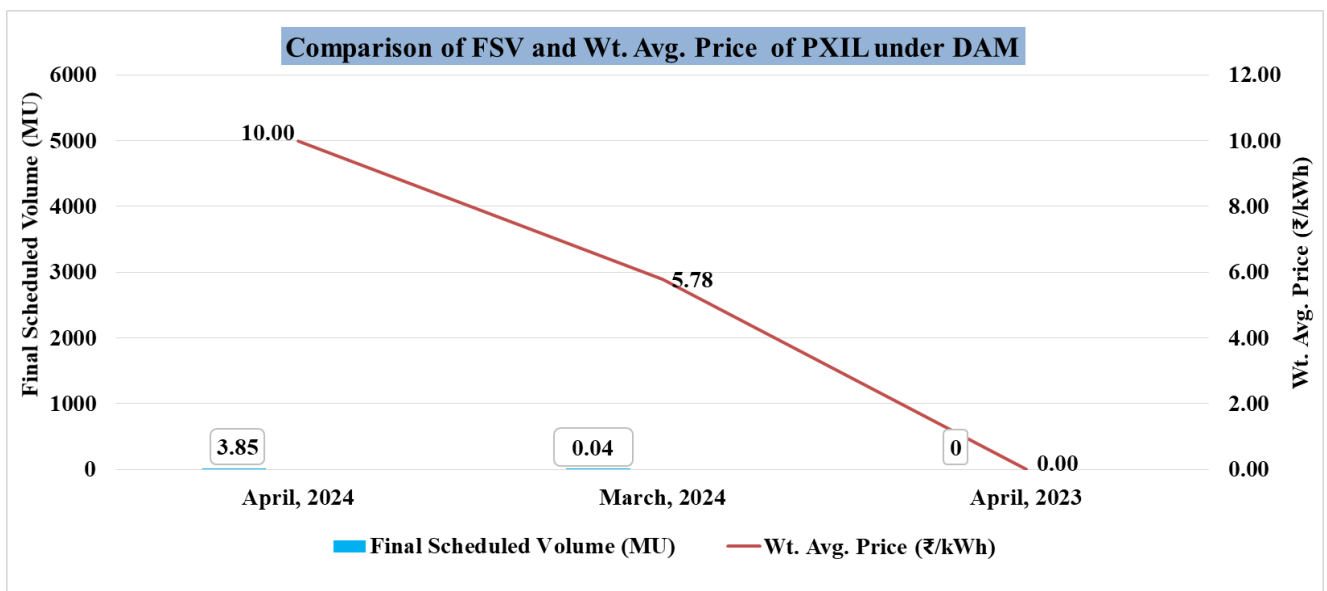


**Figure-2**

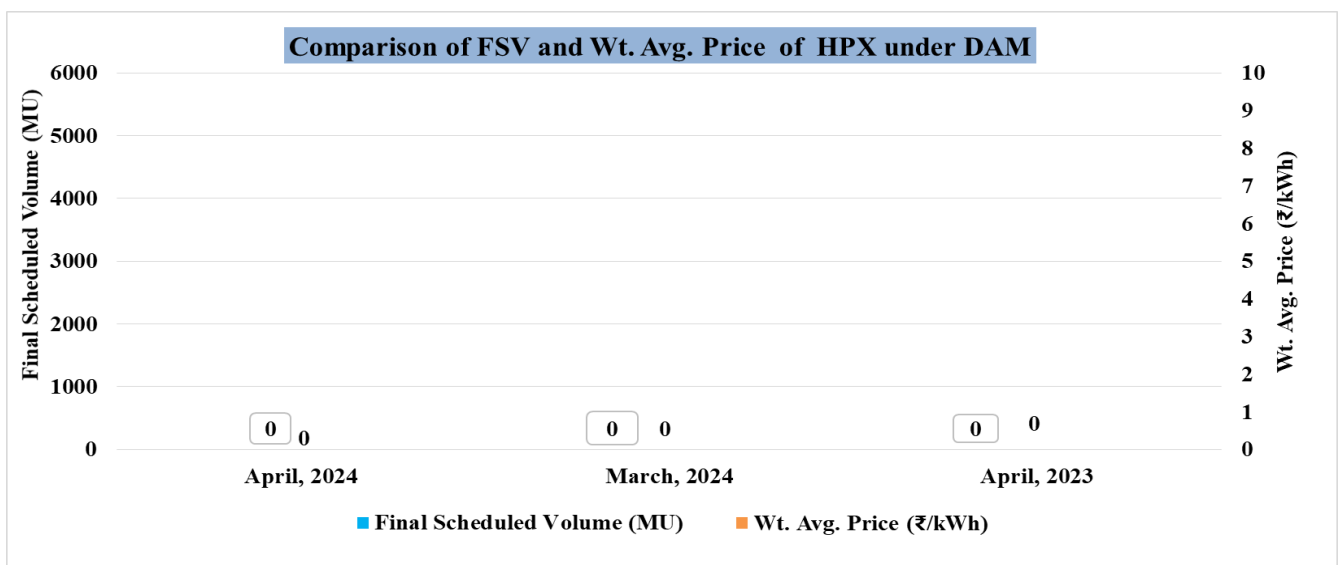


**Figure-3**

- 1.6.** The maximum Area Clearing Price (ACP) of ₹ 10.00/kWh in IEX was observed in all 13 regions during 478 time blocks on 1<sup>st</sup> to 12<sup>th</sup> & 16<sup>th</sup> to 30<sup>th</sup> April, 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 ₹ 10.00/kWh was observed in all 13 regions during 111 time blocks on 20<sup>th</sup> to 26<sup>th</sup> April, 2024. As there was no congestion in transmission system, the MCP for these time blocks was also ₹ 10.00/kWh. Further, in HPX, no transaction of electricity took place during April, 2024.
- 1.7.** The minimum ACP of ₹ 1.71/kWh in IEX was observed in 13 regions during the time block 13:00 - 13:15 Hrs on 21<sup>st</sup> April, 2024. As there was congestion in transmission system, the MCP for this time-block was also ₹ 1.71/kWh. Whereas, in PXIL, the minimum ACP of ₹ 10.00/kWh was observed in all 13 regions during 111 time blocks on 20<sup>th</sup> to 26<sup>th</sup> April, 2024. As there was no congestion in transmission system, the MCP for these time blocks was also ₹ 10.00/kWh. Further, in HPX, no transaction of electricity took place during April, 2024.

## 2. Real Time Market (RTM)

The volume of electricity transacted under RTM was 2633.39 MU at a Wt. Avg. Price of ₹ 4.83/kWh in April, 2024.

- 2.1. The total volume of electricity transacted on the power exchanges under Real Time Market in April, 2024 was **2,633.39 MU**, out of which **2,628.56 MU** (99.82 %) was transacted in IEX, **2.45 MU** (0.09 %) was transacted in PXIL and **2.38 MU** (0.09 %) 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 April, 2024 vs March, 2024 and April, 2023 is shown below as **Figure-4**, **Figure-5** & **Figure-6**:

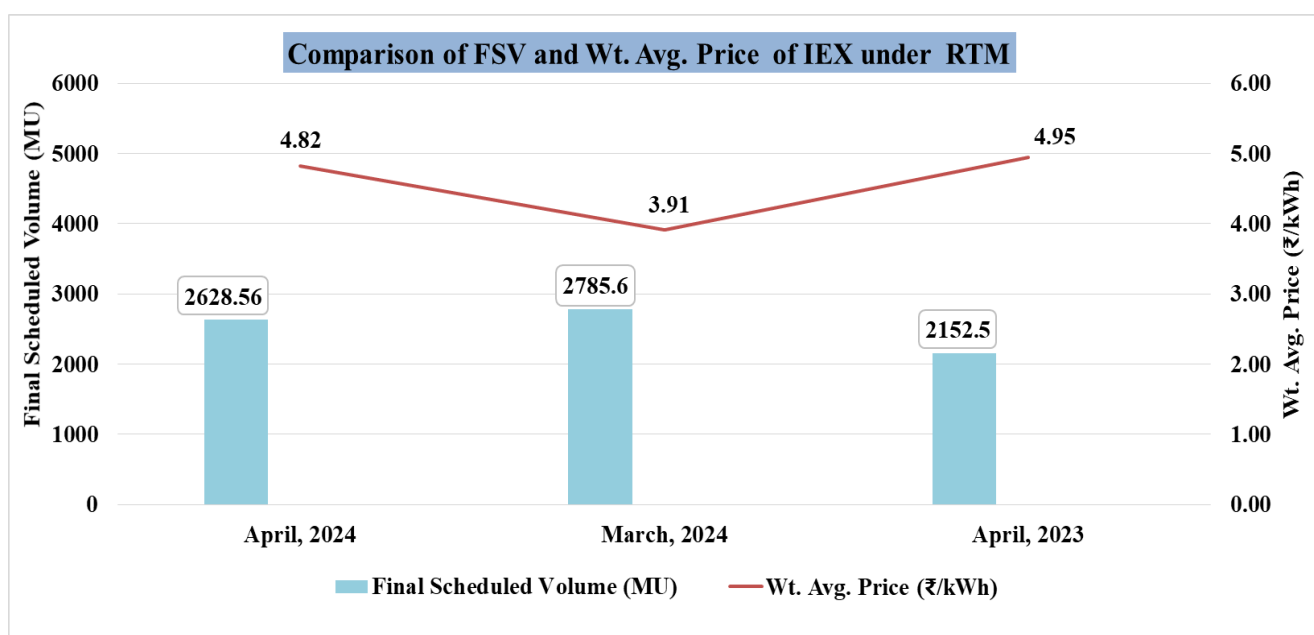


**Figure-4**

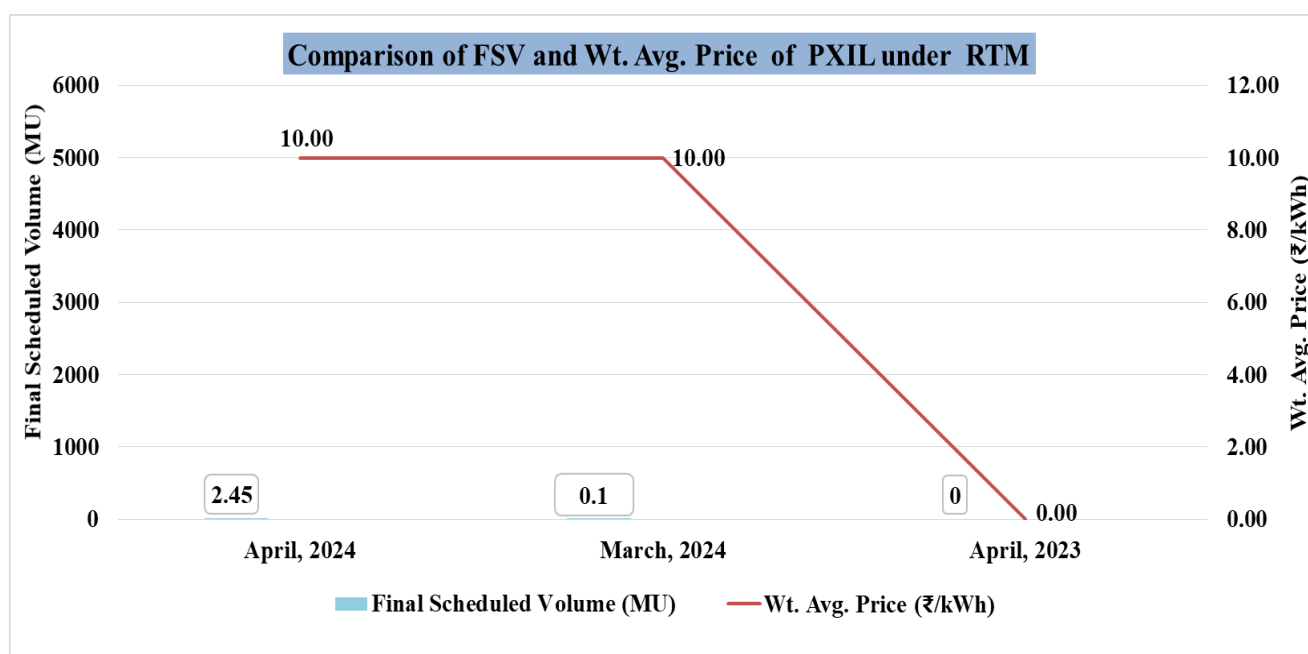


**Figure-5**

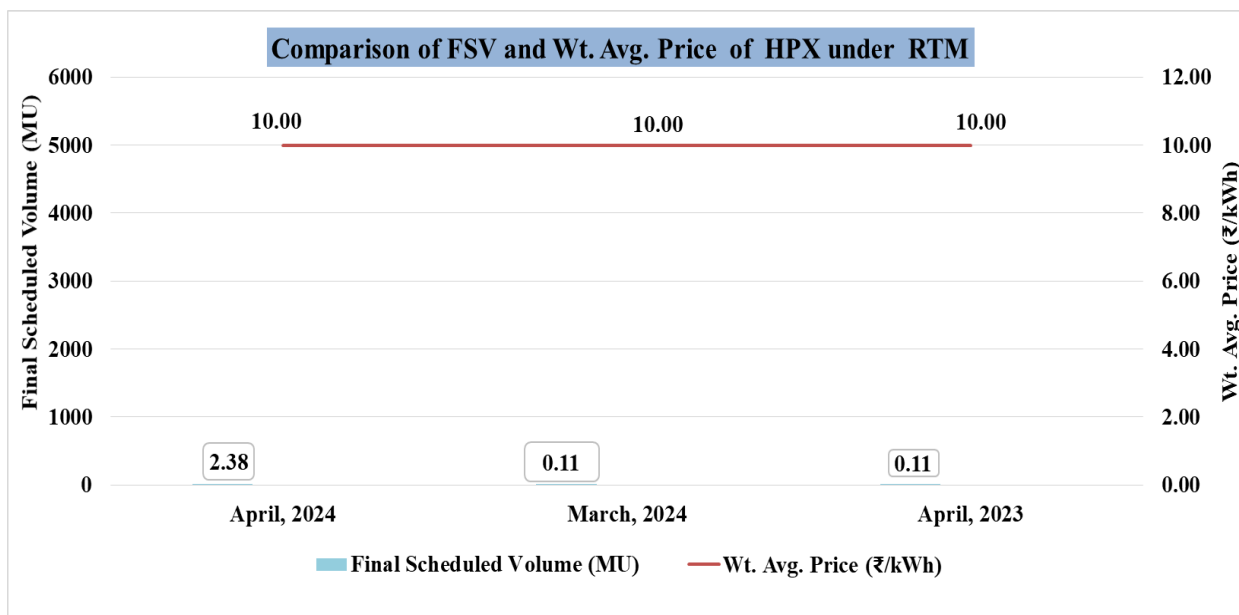


**Figure-6**

**2.3.** The RTM volume for April, 2024 in IEX is inclusive of Cross Border Transactions of Electricity with Nepal and Bhutan (details given at **Annexure XIII**), which was **18.02 MU** (i.e. 0.42 MU bought by Nepal, 0.18 MU sold by Nepal, 17.42 MU bought by Bhutan).

### 3. Green Day Ahead Market (GDAM)

The volume of electricity transacted under GDAM was 360.12 MU at a Wt. Avg. Price of ₹ 4.08/kWh in April, 2024.

3.1. The volume of electricity transacted under GDAM in April, 2024 was **360.12 MU** (248.66 MU in Solar, **99.09 MU** in Non-Solar and **12.37 MU** in Hydro) in IEX at a Wt. Avg. MCP of ₹ 4.08/kWh and no transaction took place in PXIL & HPX under GDAM.

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

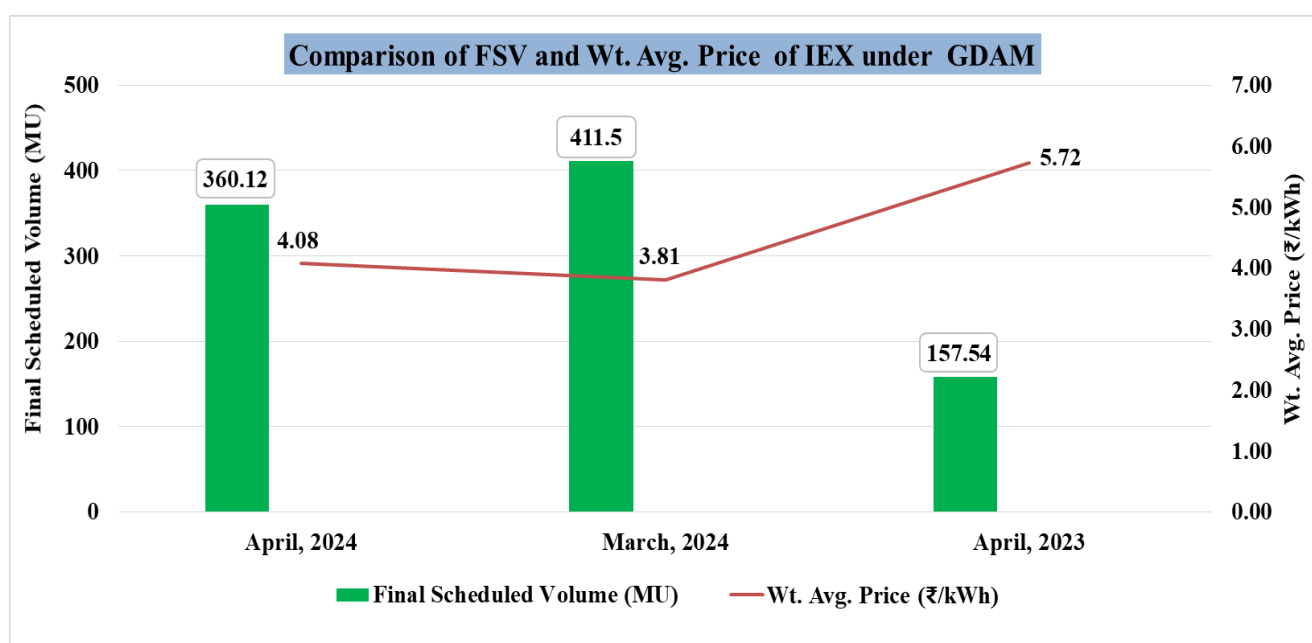


**Figure-7**

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

3.4. The **top 10 sellers** on the power exchanges Green Day Ahead Market (GDAM) in April, 2024 were **TPSL 200MW TPTCL Banderwala, ADANI RENEWABLE ENERGY HOLDING FOUR LIMITED, Andhra Pradesh , Madhya Pradesh, Adani Green Energy Twenty Five B Limited\_infirm, Himachal Pradesh, Amplus Ages Private Limited, Uttar Pradesh, ADANI SOLAR ENERGY RJ TWO PRIVATE LIMITED and ADANI WIND ENERGY KUTCHH FOUR Ltd. Nakhatrana**, which constituted **65.96 %** of the market volume.

3.5. The **top 10 buyers** on the power exchanges under Green Day Ahead Market (GDAM) in April, 2024 were **Maharashtra, Tamil Nadu, DVC, ArcelorMittal Nippon steel (ESIL), Delhi, Railways, Uttar Pradesh, Gujarat, Jharkhand and Karnataka**, which constituted **84.92 %** of the market volume.

#### 4. Term Ahead Market (TAM)

*The volume of electricity transacted under TAM was 3,560.17 MU at a Wt. Avg. Price of ₹ 8.86/kWh in April, 2024*

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

| Month              | Total Volume<br>(in MU) | IEX in MU<br>(in % of total<br>volume) | PXIL in MU<br>(in % of total<br>volume) | HPX in MU<br>(in % of total<br>volume) |
|--------------------|-------------------------|----------------------------------------|-----------------------------------------|----------------------------------------|
| <b>April, 2024</b> | <b>3,560.17</b>         | 1141.57 (32.07 %)                      | 1521.03 (42.72 %)                       | 897.57 (25.21 %)                       |
| <b>March, 2024</b> | <b>2,520.56</b>         | 759.22 (30.12 %)                       | 870.60 (34.54 %)                        | 890.74 (35.34 %)                       |
| <b>April, 2023</b> | <b>751.04</b>           | 317.91 (42.33 %)                       | 111.30 (14.82 %)                        | 321.83 (42.85 %)                       |

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

4.3. In April, 2024, there was transmission congestion of **9.00 MU** in PXIL under TAM.

4.4. In April, 2024, there was real time curtailment of **97.49 MU** under TAM, Out of which in IEX, **25.24 MU** was under Daily contract, **0.67 MU** was under Monthly contract and **7.16 MU** was under Anyday Single Sided contract in IEX. Whereas, in PXIL, there was real time curtailment of **0.10 MU** under Daily-Anyday contract, **51.52 MU** under Monthly contract and **0.95 MU** under Anyday Single Sided contract. Whereas, in HPX, there was real time curtailment of **5.97 MU** under Daily-Anyday contract, **3.94 MU** was under Monthly contract and **11.84 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 April, 2024 with March, 2024 and April, 2023 are shown in Table – 1A & 1B:

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

| Exchange | Period                                | Final Scheduled Volume (MU) |        |         |                       |         |
|----------|---------------------------------------|-----------------------------|--------|---------|-----------------------|---------|
|          |                                       | Daily or<br>Any Day         | Weekly | Monthly | Anyday Single<br>Side | Total   |
| IEX      | <b>April, 2024</b>                    | 513.00                      | 23.52  | 219.65  | 385.40                | 1141.57 |
|          | <b>March, 2024</b>                    | 176.45                      | -      | 98.21   | 484.56                | 759.22  |
|          | <b>%Change<br/>(Month over Month)</b> | 190.73                      | NA     | 123.65  | -20.46                | 50.36   |
|          | <b>April, 2023</b>                    | 76.44                       | 73.50  | 119.04  | 48.93                 | 317.91  |
|          | <b>%Change<br/>(Year over Year)</b>   | 571.11                      | -68.00 | 84.52   | 687.66                | 259.09  |

| Exchange | Period                     | Final Scheduled Volume (MU) |        |         |                    |         |
|----------|----------------------------|-----------------------------|--------|---------|--------------------|---------|
|          |                            | Daily or Any Day            | Weekly | Monthly | Anyday Single Side | Total   |
| PXIL     | April, 2024                | 547.43                      | 83.50  | 787.71  | 102.39             | 1521.03 |
|          | March, 2024                | 147.86                      | -      | 431.83  | 290.91             | 870.60  |
|          | %Change (Month over Month) | 270.24                      | NA     | 82.41   | -64.80             | 74.71   |
|          | April, 2023                | 51.60                       | 25.20  | -       | 34.50              | 111.30  |
|          | %Change (Year over Year)   | 960.91                      | 231.35 | NA      | 196.78             | 1266.60 |
| HPX      | April, 2024                | 530.28                      | -      | 67.34   | 299.95             | 897.57  |
|          | March, 2024                | 135.78                      | -      | 468.30  | 286.66             | 890.74  |
|          | %Change (Month over Month) | 290.54                      | NA     | -85.62  | 4.64               | 0.77    |
|          | April, 2023                | 22.61                       | 42.00  | 192.24  | 64.98              | 321.83  |
|          | %Change (Year over Year)   | 2245.33                     | NA     | -64.97  | 361.60             | 178.90  |

- : No transaction took place

NA: Not Applicable

**Table: 1A**

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

| Exchange | Period                     | Wt. Average MCP (₹/kWh) |        |         |                    |
|----------|----------------------------|-------------------------|--------|---------|--------------------|
|          |                            | Daily or Any Day        | Weekly | Monthly | Anyday Single Side |
| IEX      | April, 2024                | 9.37                    | 8.40   | 9.15    | 9.20               |
|          | March, 2024                | 7.66                    | -      | 8.00    | 8.09               |
|          | %Change (Month over Month) | 22.32                   | NA     | 14.38   | 13.72              |
|          | April, 2023                | 8.59                    | 8.38   | 11.20   | 11.19              |
|          | %Change Year over Year)    | 9.08                    | 0.24   | -18.30  | -17.78             |
| PXIL     | April, 2024                | 9.57                    | 8.40   | 6.73    | 9.98               |
|          | March, 2024                | 8.28                    | -      | 8.34    | 9.00               |
|          | %Change (Month over Month) | 15.58                   | NA     | -19.30  | 10.89              |
|          | April, 2023                | 9.19                    | 8.10   | -       | 11.40              |
|          | %Change (Year over Year)   | 4.13                    | 3.70   | NA      | -12.46             |
| HPX      | April, 2024                | 9.63                    | -      | 9.56    | 9.92               |
|          | March, 2024                | 7.81                    | -      | 7.96    | 8.47               |
|          | %Change (Month over Month) | 23.30                   | NA     | 20.10   | 17.12              |
|          | April, 2023                | 8.50                    | 8.30   | 8.30    | 11.98              |
|          | %Change Year over Year)    | 13.29                   | NA     | 15.18   | -17.20             |

-: 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 **599.02 MU** at a Wt. Avg. Price of ₹ **8.20/kWh** in April, 2024.

- 5.1.** The volume of electricity transacted on IEX, PXIL and HPX under DAC & ID on delivery date basis during April, 2024 were **135.78 MU, 331.21 MU and 132.03 MU**, respectively.
- 5.2.** In April, 2024, there was transmission congestion **16.18 MU** under DAC & ID. Out of which **9.70 MU** was in IEX, **0.10 MU** in PXIL and **6.47 MU** in HPX.
- 5.3.** In April, 2024, there was real time curtailment of **0.41 MU** under Day Ahead Contingency contract in IEX under DAC & ID.
- 5.4.** The total volume of electricity transacted under DAC & ID under Day Ahead Contingency & Intra Day contracts during April, 2024 and its comparison with March, 2024 and April, 2023 on delivery date basis are shown in Tables- 2A & 2B:

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

| Exchange | Period                     | Final Scheduled Volume (MU) |           |        |
|----------|----------------------------|-----------------------------|-----------|--------|
|          |                            | Day Ahead Contingency       | Intra Day | Total  |
| IEX      | April, 2024                | 127.17                      | 8.61      | 135.78 |
|          | March, 2024                | 46.99                       | 0.24      | 47.23  |
|          | %Change (Month over Month) | 170.63                      | 3487.50   | 187.49 |
|          | April, 2023                | 515.67                      | 7.80      | 523.47 |
|          | %Change (Year over Year)   | -75.34                      | 10.38     | -74.06 |
| PXIL     | April, 2024                | 309.18                      | 22.03     | 331.21 |
|          | March, 2024                | 171.44                      | 4.21      | 175.65 |
|          | %Change (Month over Month) | 80.34                       | 423.28    | 88.56  |
|          | April, 2023                | 456.23                      | 8.08      | 464.31 |
|          | %Change (Year over Year)   | -32.23                      | 172.65    | -28.67 |
| HPX      | April, 2024                | 109.71                      | 22.32     | 132.03 |
|          | March, 2024                | 156.46                      | 2.15      | 158.61 |
|          | %Change (Month over Month) | -29.88                      | 938.14    | -16.76 |
|          | April, 2023                | 514.84                      | -         | 514.84 |
|          | %Change (Year over Year)   | -78.69                      | NA        | -74.36 |

- : No transaction took place

NA: Not Applicable

Table: 2A

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

| Exchange | Period                     | Wt. Average MCP (₹/kWh) |           |
|----------|----------------------------|-------------------------|-----------|
|          |                            | Day Ahead Contingency   | Intra Day |
| IEX      | April, 2024                | 7.75                    | 9.87      |
|          | March, 2024                | 4.52                    | 8.50      |
|          | %Change (Month over Month) | 71.46                   | 16.12     |
|          | April, 2023                | 6.10                    | 9.92      |
|          | %Change Year over Year)    | 27.05                   | -0.50     |
| PXIL     | April, 2024                | 8.37                    | 2.67      |
|          | March, 2024                | 4.85                    | 7.65      |
|          | %Change (Month over Month) | 72.58                   | -65.10    |
|          | April, 2023                | 5.98                    | 9.16      |
|          | %Change (Year over Year)   | 39.97                   | -70.85    |
| HPX      | April, 2024                | 8.85                    | 9.98      |
|          | March, 2024                | 7.47                    | 8.60      |
|          | %Change (Month over Month) | 18.47                   | 16.05     |
|          | April, 2023                | 6.17                    | -         |
|          | %Change Year over Year)    | 43.44                   | NA        |

- : No transaction took place

NA: Not Applicable

Table: 2B

## 6. Green Term Ahead Market (GTAM)

The volume of electricity transacted under GTAM was 44.24 MU at a Wt. Avg. Price of ₹ 6.73/kWh in April, 2024.

The total volume of electricity transacted in the PXs under GTAM on delivery date basis was 44.24 MU in Solar and Non-Solar only. Whereas, no transactions took place in Hydro segment under GTAM. The Comparison of Final Scheduled Volume (FSV) and Wt. Avg. Price of IEX, PXIL and HPX under GTAM for April, 2024 is shown below as **Figure-8, Figure-9 & Figure-10:**

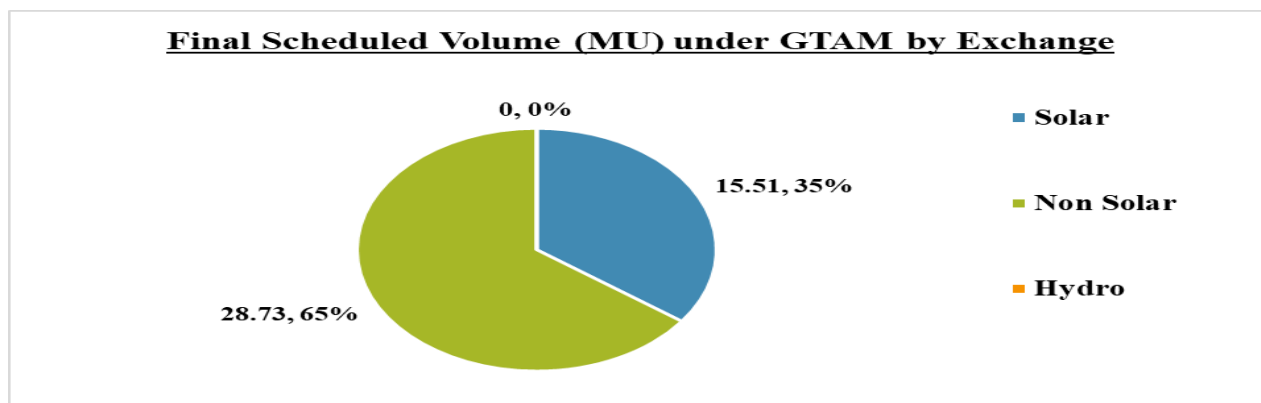


**Figure-8**

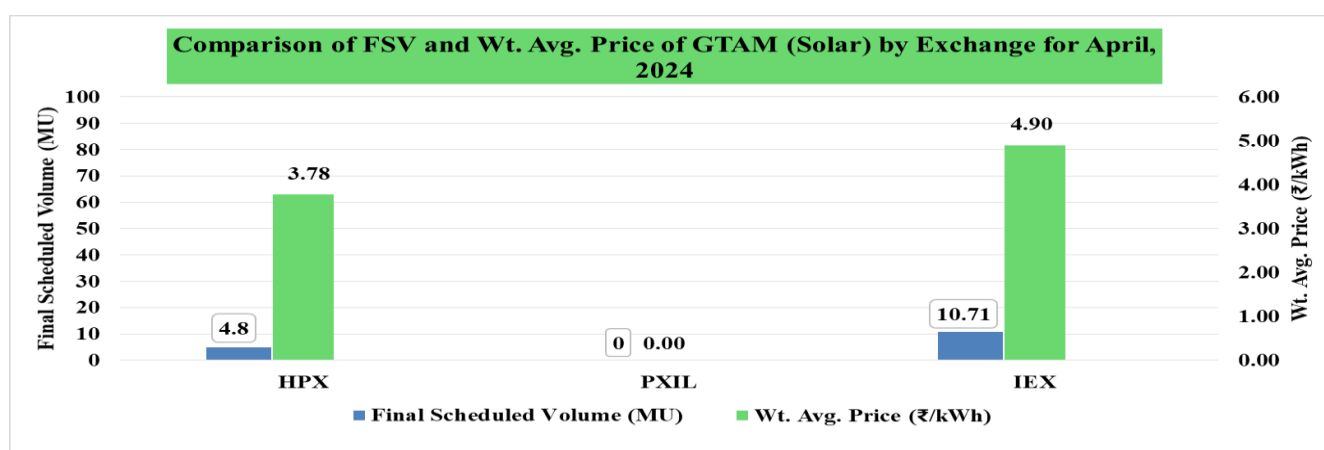
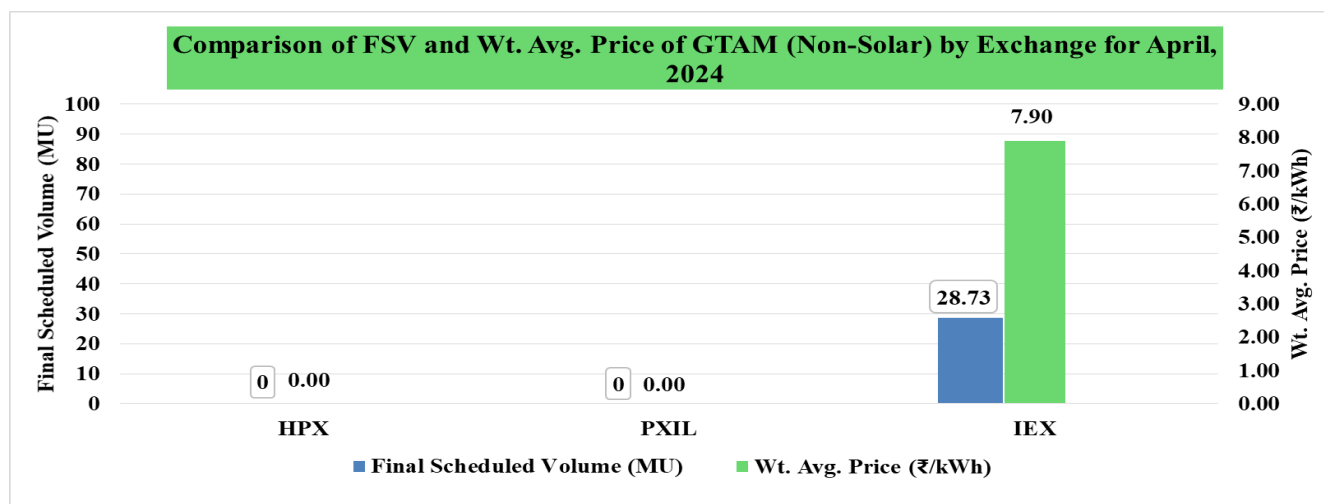


**Figure-9**



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

The volume of electricity transacted under G-DAC & ID was 100.54 MU at a Wt. Avg. Price of ₹ 3.82/kWh in April, 2024.

**Figure-10**

The total volume of electricity transacted in the IEX, PXIL & HPX under G-DAC & ID on delivery date basis was **100.54 MU** (85.26 MU in Solar and 15.28 MU in Non-Solar), respectively. Whereas, no transactions took place in Hydro segments under G-DAC & ID. The Comparison of Final Scheduled Volume (FSV) and Wt. Avg. Price of IEX, PXIL and HPX under G-DAC & ID for April, 2024 is shown below as **Figure-11, Figure-12 & Figure-13**:

**Figure-11**

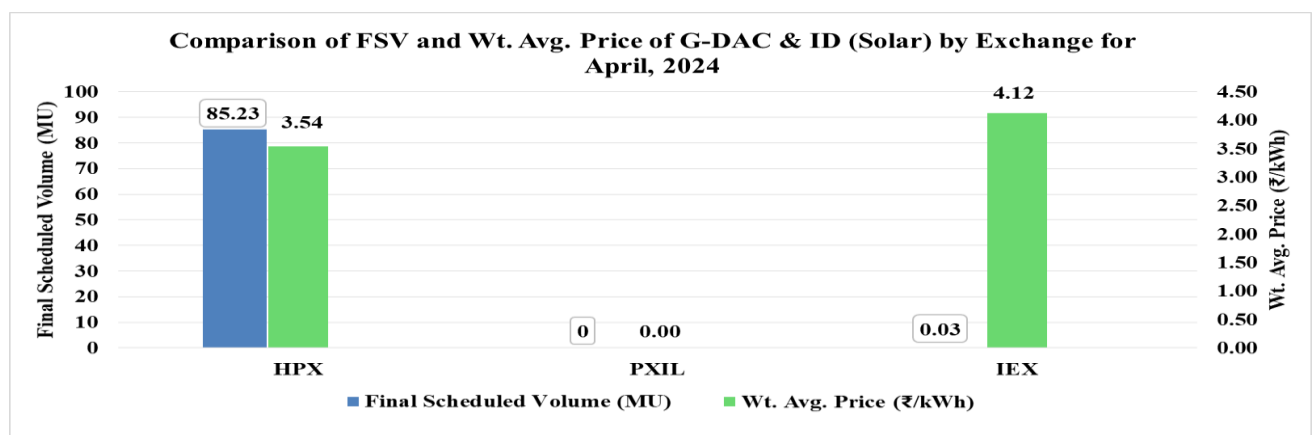
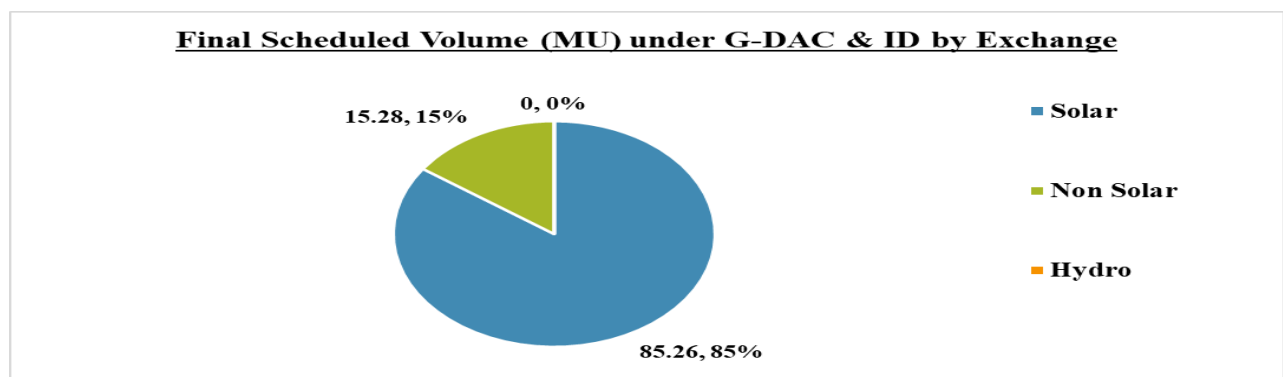


**Figure-12**

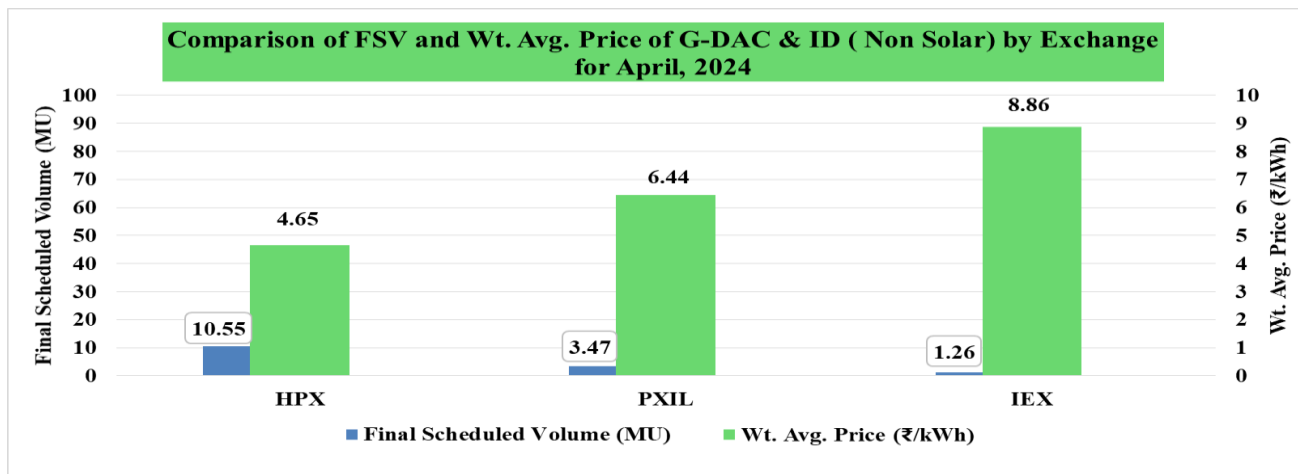


Figure-13

## 8. Bilateral Transactions:

The total volume of electricity transacted through **bilateral transactions** in April, 2024 was **6,217.03 MU**. The total buy volume of electricity transacted in bilateral market through direct and trader transactions in April, 2024 were **1,158.03 MU** and **5,059.00 MU** respectively. The details of bilateral transactions of Electricity during April, 2024 are shown in table below:

| April, 2024    | Direct  | Traders  | Total Bilateral Transaction (MU) |
|----------------|---------|----------|----------------------------------|
| <b>Total</b>   | 1158.03 | 5,059.00 | 6,217.03                         |
| <b>Minimum</b> | 0.24    | 2.22     | -                                |
| <b>Maximum</b> | 624.82  | 2158.65  | -                                |

Table -3A

The region-wise maximum/ minimum volume of electricity transacted bilaterally during April, 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 |
| <b>Total</b>            | 226.36 | 1205.2 | 169.49 | 656.82 | 56.48  | 292.73 | 705.70 | 2891.41 | -      | 12.81  |
| <b>Minimum</b>          | 19.65  | 2.22   | 2.40   | 20.54  | 0.24   | 11.76  | 9.35   | 3.06    | -      | 12.81  |
| <b>Maximum</b>          | 143.61 | 1184.6 | 128.52 | 311.53 | 54.98  | 266.84 | 624.82 | 2158.65 | -      | 12.81  |

Table-3B

**8.1. The top 5 buyers** on bilateral transaction through direct transactions in April, 2024 were **Karnataka, Bihar, Chhattisgarh, Kerala and Odisha**, which constituted **89.08 %** of the market volume. Whereas **top 5 buyers** on bilateral transaction through traders in April, 2024 were **Tamil Nadu, West Bengal, Kerala, Maharashtra and Uttar Pradesh**, which constituted **91.80 %** of the market volume. [Annexure III]

**8.2. The top 5 sellers** on bilateral transaction through direct transactions in April, 2024 were **Andhra Pradesh, Gujarat, Uttar Pradesh, Gujarat, RENEW SURYA AAYAN PRIVATE LIMITED**

and **Jindal India Thermal Power Limited**, which constituted **75.27 %** of the market volume. Whereas **top 5 sellers** on bilateral transaction through traders in April, 2024 were **Jindal Power Limited, Stage-2, SEIL ENERGY INDIA LIMITED, Adani Power Limited-Raipur TPP, DGEN MEGA POWER PROJECT and R.K.M POWERGEN PRIVATE LIMITED**, which constituted **36.79 %** of the market volume. **[Annexure III]**

**8.3. Deviation Volume** -The volume of Deviation observed in April, 2024 in import and export were **2,416.31 MU** and **2,536.36 MU** respectively. The total volume of Deviation observed in April, 2024 can be taken as **2,476.34 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 April, 2024 is shown in **Figure 14:**

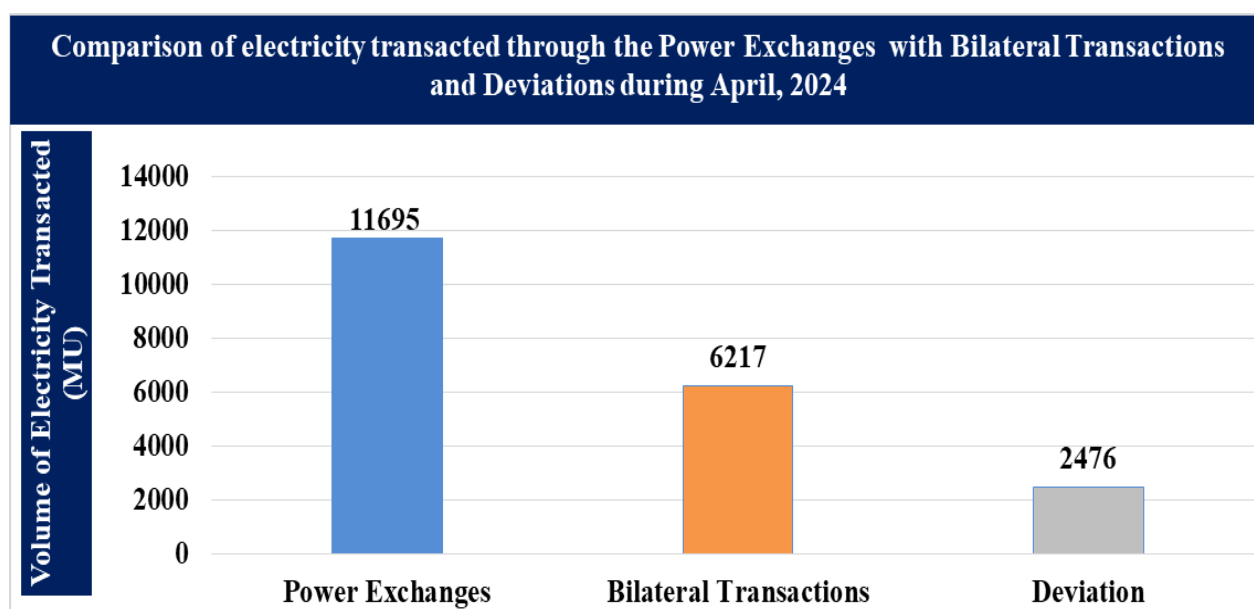
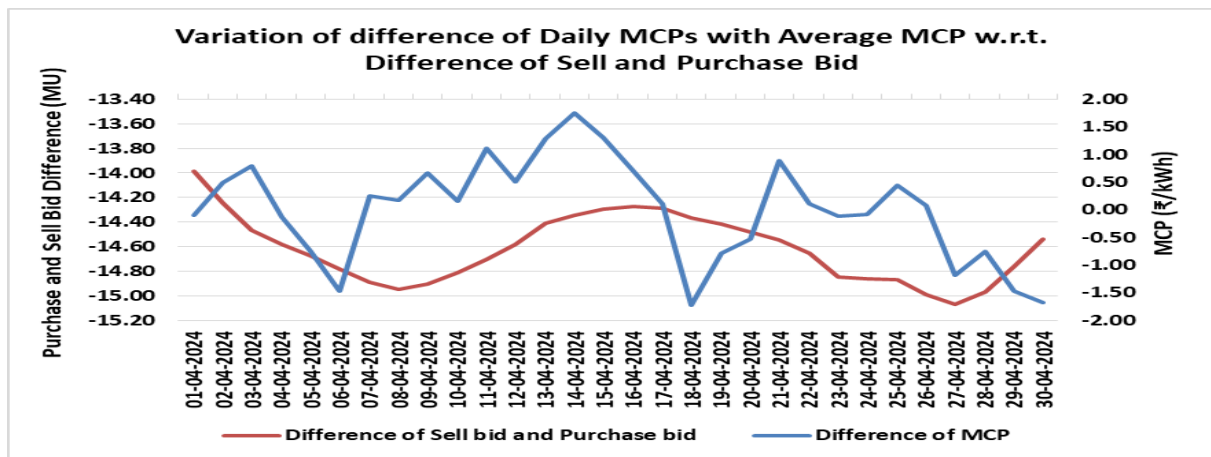


**Figure -14**

## 9. Analysis of movement of prices observed under DAM during April, 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 April, 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 **4.29** in April, 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 - 15**

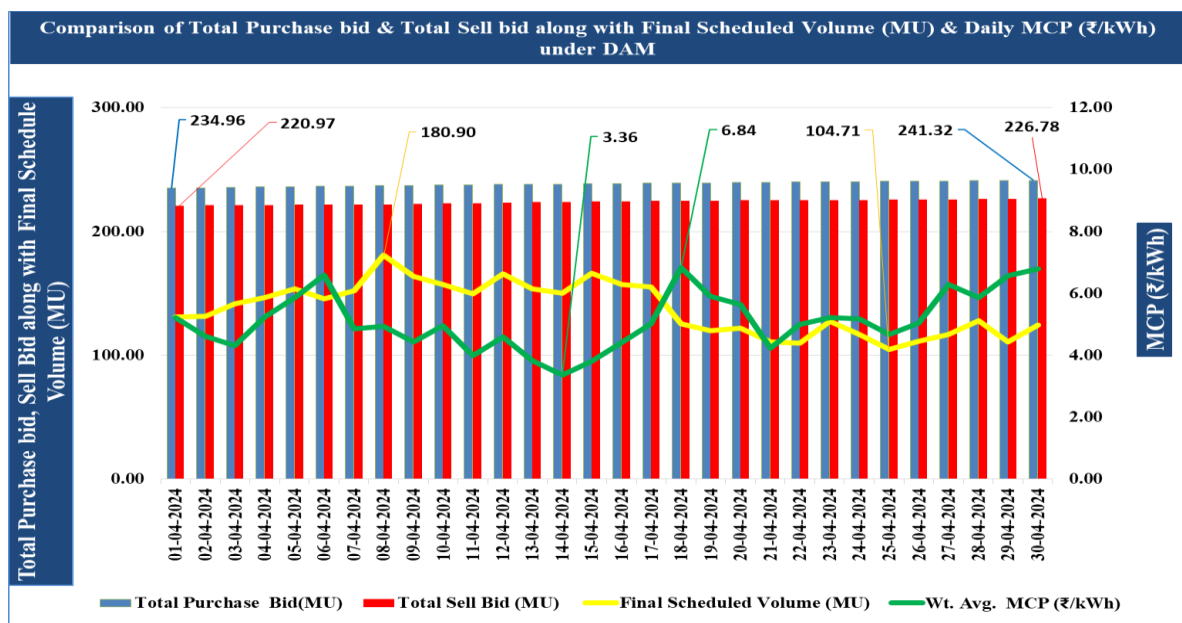


**Figure – 15**

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 April, 2024, it is observed that on first Sunday (07<sup>th</sup> April, 2024), FSV showed increasing trend in comparison to first Saturday (06<sup>th</sup> April, 2024), on fourth Monday (29<sup>th</sup> April, 2024), FSV showed decreasing trend in comparison to fourth Sunday (28<sup>th</sup> April, 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-16**. The same are also tabulated in **Annexure-I**

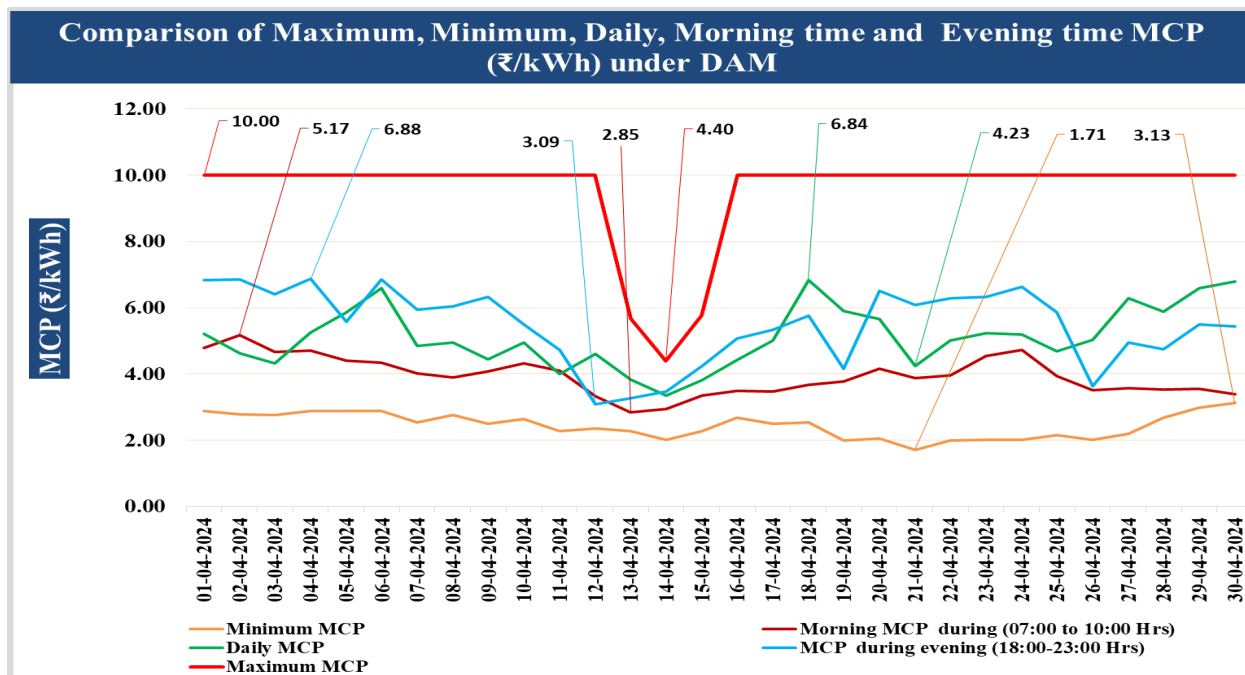


Figure-16

9.7. The Market Clearing Price duration curves for time block wise MCP for the month of April, 2024 is shown in **Figure-17**.

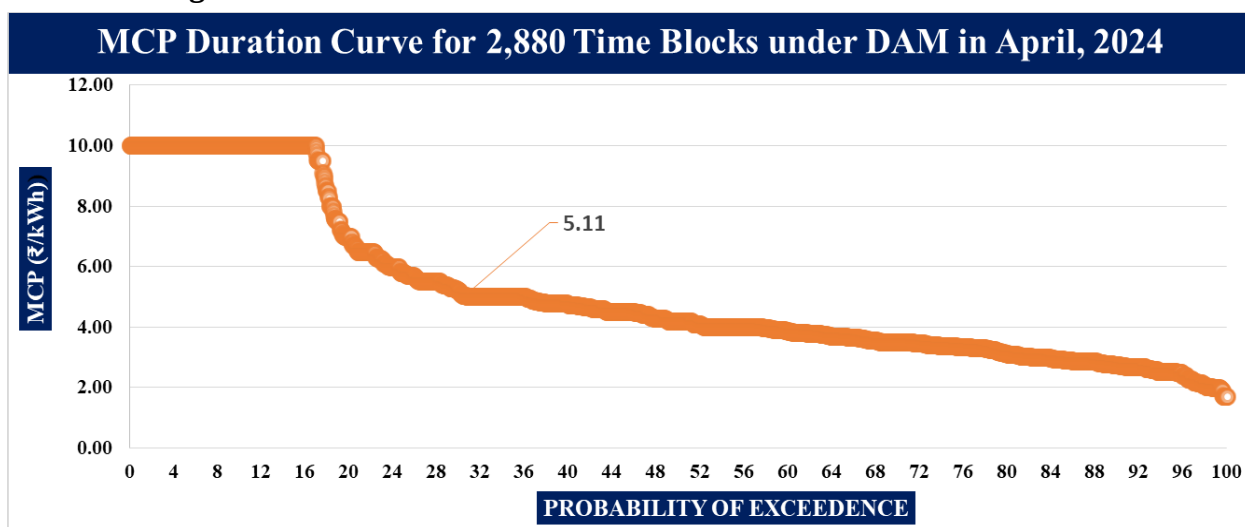


Figure – 17

- 9.8.** It can be seen in figure 4 above that in the MCP duration curve of April, 2024, for 30.00 % of the time MCP was above Wt. Avg. MCP of the month (i.e. ₹ 5.11/kWh) and almost 70.00 % 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 April, 2024, the maximum FSV occurred mostly during the time period 07-08 Hrs (on 14 no. of days). Whereas, the maximum MCP occurred mostly during the time period 00-01 Hrs (on 15 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 31 no. of days). [Annexure VI]
- 9.11.** In April, 2024, there was congestion of 13.94 MU in IEX and no congestion in PXIL & and no transaction of electricity took place in HPX. Further, in 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 April, 2023, there was congestion of 56.64 MU in IEX and no transaction of electricity took place in PXIL & HPX.
- 9.12.** In April, 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 March, 2024, there was no real time curtailment in IEX, PXIL & HPX. Further in April, 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 April, 2024 were Uttar Pradesh, Haryana, Chhattisgarh, Madhya Pradesh, Delhi, DB Power, Himachal Pradesh, Jindal Power Ltd. Stg-II, ADANI RENEWABLE ENERGY HOLDING FOUR LIMITED and Mahan Energy Limited, which constituted 59.84 % of the market volume. [Annexure VII]
- 9.14.** The top 10 buyers on the power exchanges under Day Ahead Market (DAM) in April, 2024 were Gujarat, Telangana, Uttarakhand, Maharashtra, Uttar Pradesh, West Bengal, Karnataka, Tamil Nadu, NVVN (SNA) – NEA and Himachal Pradesh, which constituted 73.88 % of the market volume. [Annexure VII]
- 9.15.** The total volume of electricity purchased by Discoms/Licensees under DAM in April, 2024 was 3,735.44 MU, which constituted 90.33 % 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 April, 2024 was 2,621.90 MU, which constituted 63.40 % of total volume of electricity sold on the power exchanges.

## 10. Analysis of movement of prices observed under Real Time Market (RTM) transactions in April, 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 **5.28** in April, 2024.
- 10.2. The Purchase Bids and the MCP discovered in each of the 15-minute time block during the month almost followed the same trend [Annexure IX]. This is also corroborated with the outcome of regression analysis mentioned at **para 10.1 above**.
- 10.3. The Total Purchase Bid, Total Sell Bid, Daily Wt. Avg. MCP and FSV are shown in **Figure-18** below:

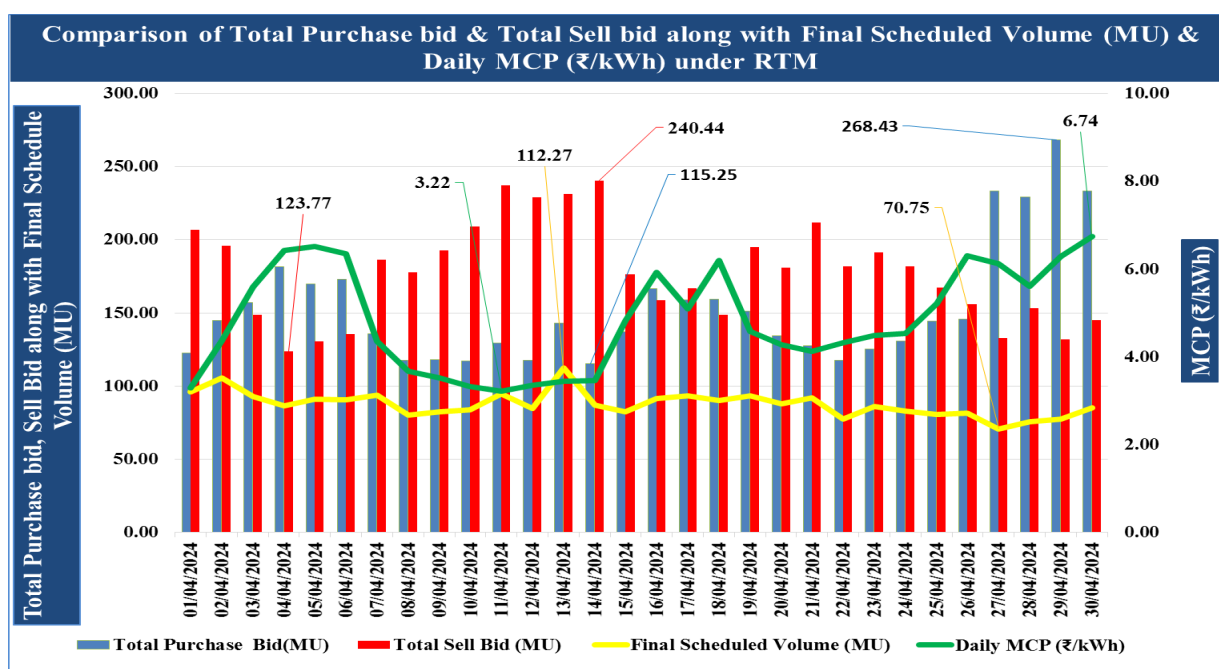


Figure-18

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

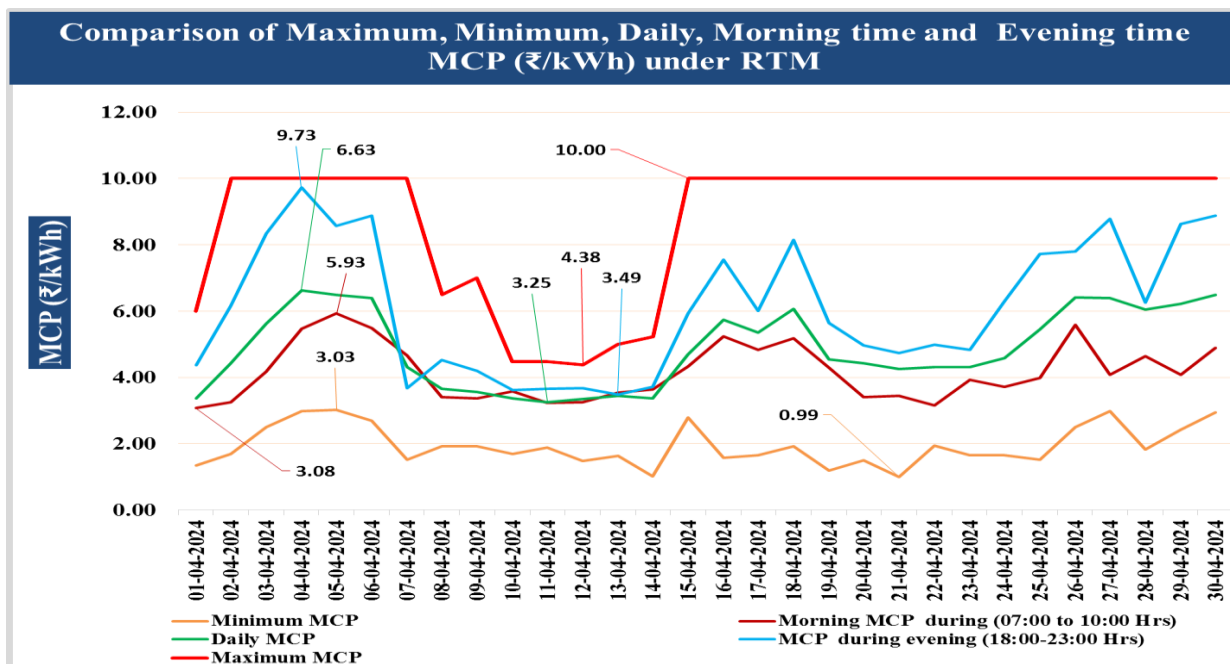


Figure-19

10.5. The Market Clearing Price duration curves for time block wise MCP for the month of April, 2024 is shown in **Figure-20**.

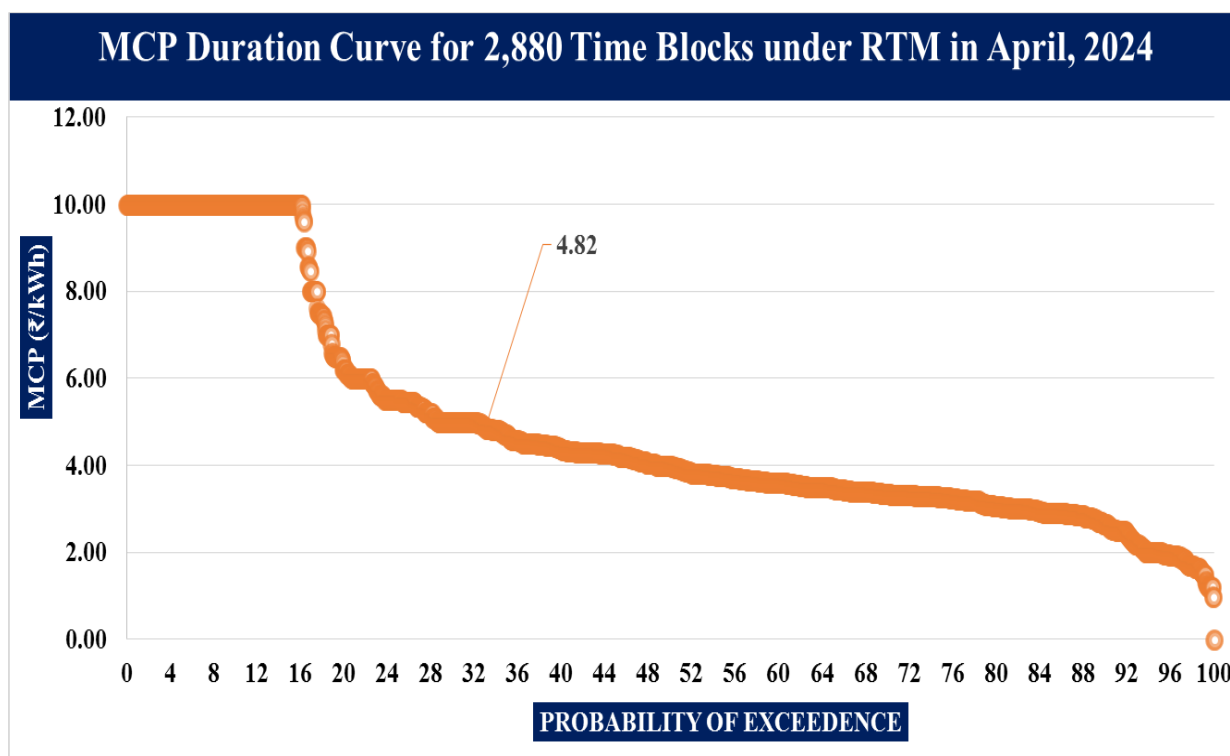


Figure-20

10.6. It can be seen in figure 8 above that in the MCP duration curve of April, 2024, for 37.00 % of the time the MCP was above the Wt. Avg. MCP of the month (i.e. ₹ 4.82/kWh) and for 63.00 % of the time the MCP was below the Wt. Avg. MCP of the month.

- 10.7.** In April, 2024, the maximum FSV occurred mostly during the **time period 17-19 Hrs** (on 9 no. of days). Whereas, the maximum MCP also occurred mostly during the **time period 00-01 Hrs** (on 20 no. of days). Similarly, the minimum FSV occurred mostly during the **time period 07-10 Hrs** (on 7 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 April, 2024. Further, in March, 2024 **no** real time curtailment in IEX and no transaction took place in PXIL & HPX. Similarly, in April, 2023, there was **no** real time curtailment in IEX and no transaction took place in PXIL & HPX.
- 10.9.** In April, 2024, there was congestion of **18.03 MU** in IEX and no congestion in PXIL & HPX. Further, in March, 2024, there was congestion of **0.04 MU** in IEX and no congestion in PXIL & HPX. Similarly, in April, 2023, there was congestion of **4.62 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 April, 2024 were **Madhya Pradesh, Uttar Pradesh, Haryana, Chhattisgarh, Bihar, Assam, Punjab, Rajasthan, West Bengal and Odisha, which constituted 63.75 % of the market volume. [Annexure XI]**
- 10.11.** The **top 10 buyers** on the power exchanges under Real Time Market (RTM) in April, 2024 were **Telangana, Maharashtra, Rajasthan, Uttar Pradesh, J&K, Tamil Nadu, Andhra Pradesh, Punjab, Odisha and West Bengal, which constituted 67.74 % of the market volume. [Annexure XI]**
- 10.12.** The total volume of electricity purchased by Discoms/Licensees under RTM in April, 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 April, 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, 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    | 0   |
|                                                                                                                                                                | May, 2024          |                             |      |     |                               |       |     |                            |      |     |
|                                                                                                                                                                | June, 2024         |                             |      |     |                               |       |     |                            |      |     |
| Total Quarter -I                                                                                                                                               | April - June, 2024 | 4,131.42                    | 3.85 | 0   | 4.65                          | 10.00 | 0   | 0                          | 0    | 0   |
| Total April, 2024 – March, 2025                                                                                                                                |                    | 4,131.42                    | 3.85 | 0   | 4.65                          | 10.00 | 0   | 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          |                             |         |        |         |
|                                                                                                                                              | June, 2024         |                             |         |        |         |
| Total Quarter – I                                                                                                                            | April - June, 2024 | 1141.57                     | 1521.03 | 897.57 | 3560.17 |
| Total April, 2024 – March, 2025                                                                                                              |                    | 1141.57                     | 1521.03 | 897.57 | 3560.17 |

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

#### (i) Top five Buyers in Bilateral transactions

| Entity Name                      | Direct          |               | Entity Name                      | Through Traders |               |
|----------------------------------|-----------------|---------------|----------------------------------|-----------------|---------------|
|                                  | (MU)            | Percent       |                                  | (MU)            | Percent       |
| Karnataka                        | 624.82          | 53.96%        | Tamil Nadu                       | 2158.65         | 42.67%        |
| Bihar                            | 143.61          | 12.40%        | West Bengal                      | 1184.66         | 23.42%        |
| Chhattisgarh                     | 128.52          | 11.10%        | Kerala                           | 722.50          | 14.28%        |
| Kerala                           | 71.52           | 6.18%         | Maharashtra                      | 311.53          | 6.16%         |
| Odisha                           | 63.10           | 5.45%         | Uttar Pradesh                    | 266.84          | 5.27%         |
| <b>Total Volume</b>              | <b>1,031.57</b> | <b>89.08%</b> | <b>Total Volume</b>              | <b>4,644.18</b> | <b>91.80%</b> |
| <b>Total Volume in Bilateral</b> | <b>1,158.03</b> |               | <b>Total Volume in Bilateral</b> | <b>5,059.00</b> |               |

#### (ii) Top five Sellers in Bilateral transactions

| Entity Name                        | Direct          |               | Entity Name                      | Through Traders |               |
|------------------------------------|-----------------|---------------|----------------------------------|-----------------|---------------|
|                                    | (MU)            | Percent       |                                  | (MU)            | Percent       |
| Andhra Pradesh                     | 463.08          | 39.99%        | Jindal Power Limited, Stage-2    | 511.45          | 10.11%        |
| Gujarat                            | 139.32          | 12.03%        | SEIL ENERGY INDIA LIMITED        | 415.50          | 8.21%         |
| Uttar Pradesh                      | 136.50          | 11.79%        | Adani Power Limited- Raipur TPP  | 368.88          | 7.29%         |
| RENEW SURYA AAYAN PRIVATE LIMITED  | 71.52           | 6.18%         | DGEN MEGA POWER PROJECT          | 286.44          | 5.66%         |
| Jindal India Thermal Power Limited | 61.20           | 5.28%         | R.K.M POWERGEN PRIVATE LIMITED   | 278.77          | 5.51%         |
| <b>Total Volume</b>                | <b>871.62</b>   | <b>75.27%</b> | <b>Total Volume</b>              | <b>1,861.04</b> | <b>36.79%</b> |
| <b>Total Volume in Bilateral</b>   | <b>1,158.03</b> |               | <b>Total Volume in Bilateral</b> | <b>5,059.00</b> |               |

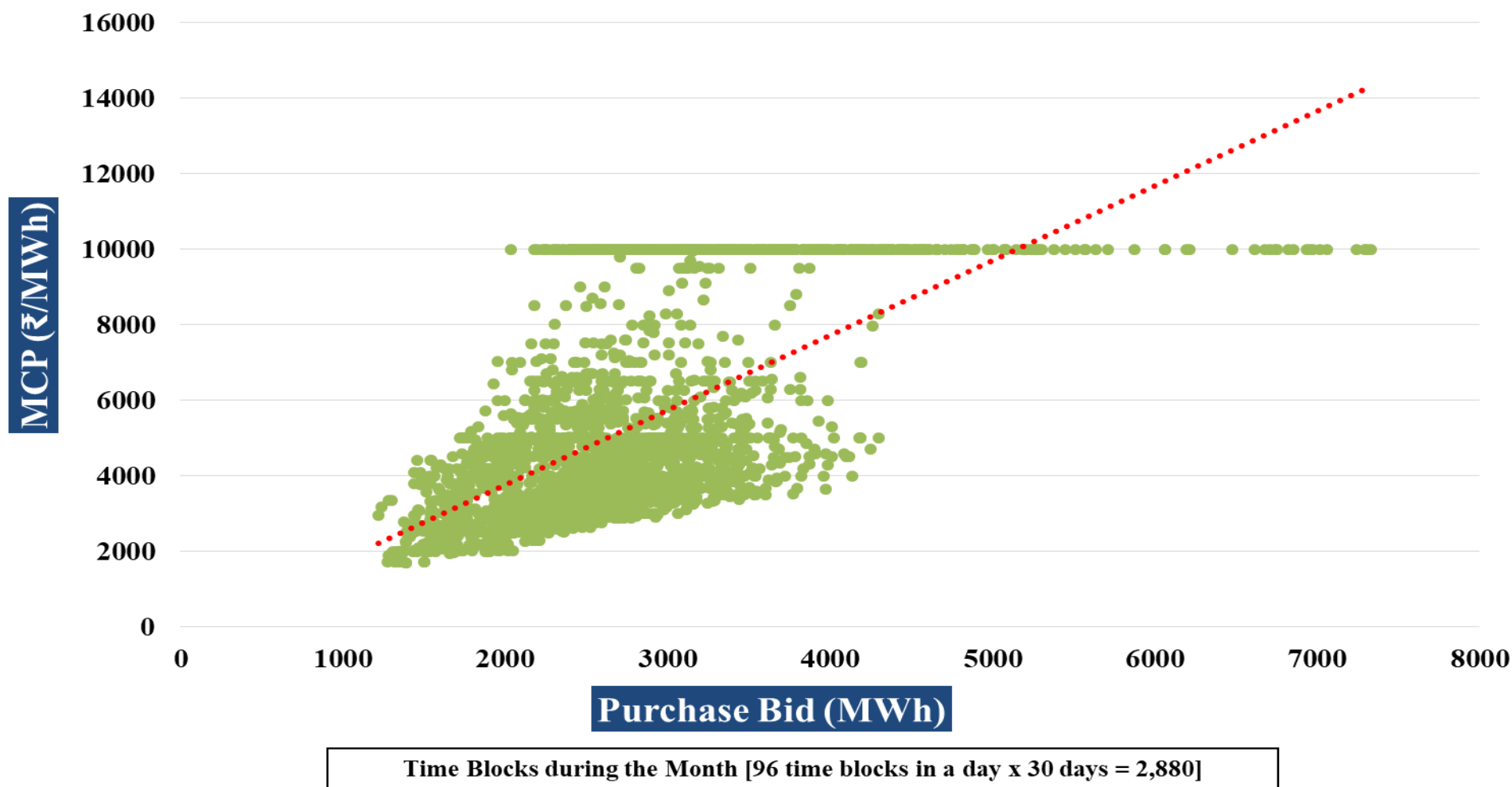
**Evening, Day, Night, Morning, Maximum, Minimum, Wt. Avg. MCP (₹/kWh) and Final Scheduled Volume (MU) under DAM**

| Date       | Morning MCP<br>(07:00-10:00) | Day MCP<br>(11:00-17:00) | Evening MCP<br>(18:00- 23:00) | Night MCP (01:00-<br>06:00, 23:00-24:00) | Maximum<br>MCP | Minimum<br>MCP | Wt. Avg.<br>MCP | Final Scheduled<br>Volume (MU) |
|------------|------------------------------|--------------------------|-------------------------------|------------------------------------------|----------------|----------------|-----------------|--------------------------------|
| 01-04-2024 | 4.78                         | 4.20                     | 6.83                          | 4.15                                     | 10.00          | 2.88           | 5.22            | 131.16                         |
| 02-04-2024 | 5.17                         | 4.20                     | 6.85                          | 4.15                                     | 10.00          | 2.79           | 4.63            | 131.77                         |
| 03-04-2024 | 4.66                         | 3.81                     | 6.41                          | 3.93                                     | 10.00          | 2.76           | 4.32            | 141.51                         |
| 04-04-2024 | 4.70                         | 4.32                     | 6.88                          | 4.15                                     | 10.00          | 2.88           | 5.25            | 146.90                         |
| 05-04-2024 | 4.39                         | 3.73                     | 5.58                          | 4.01                                     | 10.00          | 2.88           | 5.87            | 153.68                         |
| 06-04-2024 | 4.33                         | 4.04                     | 6.86                          | 3.77                                     | 10.00          | 2.88           | 6.59            | 145.50                         |
| 07-04-2024 | 4.02                         | 3.83                     | 5.94                          | 3.60                                     | 10.00          | 2.54           | 4.85            | 152.26                         |
| 08-04-2024 | 3.90                         | 3.54                     | 6.03                          | 3.47                                     | 10.00          | 2.76           | 4.95            | 180.90                         |
| 09-04-2024 | 4.07                         | 3.78                     | 6.32                          | 3.58                                     | 10.00          | 2.50           | 4.44            | 163.57                         |
| 10-04-2024 | 4.32                         | 3.74                     | 5.49                          | 3.37                                     | 10.00          | 2.63           | 4.95            | 157.30                         |
| 11-04-2024 | 4.10                         | 3.40                     | 4.73                          | 3.26                                     | 10.00          | 2.28           | 4.00            | 149.84                         |
| 12-04-2024 | 3.33                         | 2.37                     | 3.09                          | 2.89                                     | 10.00          | 2.35           | 4.60            | 165.61                         |
| 13-04-2024 | 2.85                         | 2.26                     | 3.26                          | 2.57                                     | 5.67           | 2.28           | 3.83            | 153.54                         |
| 14-04-2024 | 2.94                         | 2.57                     | 3.48                          | 2.57                                     | 4.40           | 2.02           | 3.36            | 150.38                         |
| 15-04-2024 | 3.34                         | 2.95                     | 4.23                          | 2.90                                     | 5.76           | 2.28           | 3.81            | 166.27                         |
| 16-04-2024 | 3.49                         | 3.16                     | 5.06                          | 2.90                                     | 10.00          | 2.68           | 4.42            | 157.00                         |
| 17-04-2024 | 3.48                         | 3.14                     | 5.33                          | 2.81                                     | 10.00          | 2.50           | 5.01            | 155.41                         |
| 18-04-2024 | 3.67                         | 3.42                     | 5.76                          | 3.06                                     | 10.00          | 2.54           | 6.84            | 125.63                         |
| 19-04-2024 | 3.78                         | 3.35                     | 4.16                          | 3.00                                     | 10.00          | 2.00           | 5.90            | 119.99                         |
| 20-04-2024 | 4.15                         | 4.10                     | 6.51                          | 3.02                                     | 10.00          | 2.05           | 5.65            | 121.75                         |
| 21-04-2024 | 3.88                         | 3.69                     | 6.08                          | 3.01                                     | 10.00          | 1.71           | 4.23            | 110.76                         |
| 22-04-2024 | 3.96                         | 3.70                     | 6.28                          | 3.06                                     | 10.00          | 2.00           | 5.00            | 110.00                         |
| 23-04-2024 | 4.54                         | 3.98                     | 6.33                          | 3.24                                     | 10.00          | 2.02           | 5.23            | 127.48                         |
| 24-04-2024 | 4.73                         | 3.86                     | 6.63                          | 3.32                                     | 10.00          | 2.00           | 5.19            | 116.90                         |
| 25-04-2024 | 3.93                         | 3.52                     | 5.85                          | 3.13                                     | 10.00          | 2.16           | 4.67            | 104.71                         |
| 26-04-2024 | 3.50                         | 3.23                     | 3.64                          | 2.74                                     | 10.00          | 2.02           | 5.03            | 111.27                         |
| 27-04-2024 | 3.56                         | 3.39                     | 4.95                          | 2.72                                     | 10.00          | 2.19           | 6.29            | 117.02                         |
| 28-04-2024 | 3.53                         | 3.27                     | 4.74                          | 2.65                                     | 10.00          | 2.68           | 5.87            | 128.04                         |
| 29-04-2024 | 3.54                         | 3.23                     | 5.49                          | 2.96                                     | 10.00          | 2.98           | 6.58            | 110.99                         |
| 30-04-2024 | 3.40                         | 3.26                     | 5.43                          | 2.78                                     | 10.00          | 3.13           | 6.79            | 124.27                         |
| Maximum    | 5.17                         | 4.32                     | 6.88                          | 4.15                                     | 10.00          | 3.13           | 6.84            | 180.90                         |
| Minimum    | 2.85                         | 2.26                     | 3.09                          | 2.57                                     | 4.40           | 1.71           | 3.36            | 104.71                         |
| Average    | 3.93                         | 3.50                     | 5.47                          | 3.23                                     | 9.53           | 2.45           | 5.11            | 137.71                         |

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 April, 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 |
| 01-04-2024 | 07:00 - 07:15 | 2.26  | 00:00 - 00:15    | 10.00 | 22:30 - 22:45 | 0.69  | 13:15 - 13:30    | 2.88  |
| 02-04-2024 | 06:45 - 07:00 | 2.27  | 00:00 - 00:15    | 10.00 | 21:45 - 22:00 | 0.73  | 13:15 - 13:30    | 2.79  |
| 03-04-2024 | 07:30 - 07:45 | 2.08  | 23:45 - 24:00    | 10.00 | 21:45 - 22:00 | 0.87  | 13:30 - 13:45    | 2.76  |
| 04-04-2024 | 16:45 - 17:00 | 2.27  | 00:00 - 00:15    | 10.00 | 20:45 - 21:00 | 1.01  | 13:00 - 13:15    | 2.88  |
| 05-04-2024 | 15:45 - 16:00 | 2.32  | 00:00 - 00:15    | 10.00 | 22:45 - 23:00 | 0.83  | 13:00 - 13:15    | 2.88  |
| 06-04-2024 | 15:30 - 15:45 | 2.41  | 00:00 - 00:15    | 10.00 | 23:30 - 23:45 | 0.84  | 13:15 - 13:30    | 2.88  |
| 07-04-2024 | 15:00 - 15:15 | 2.30  | 00:00 - 00:15    | 10.00 | 21:15 - 21:30 | 1.11  | 13:30 - 13:45    | 2.54  |
| 08-04-2024 | 16:45 - 17:00 | 3.01  | 18:45 - 19:00    | 10.00 | 20:45 - 21:00 | 1.03  | 13:00 - 13:15    | 2.76  |
| 09-04-2024 | 15:45 - 16:00 | 2.37  | 00:00 - 00:15    | 10.00 | 21:00 - 21:15 | 0.99  | 13:00 - 13:15    | 2.50  |
| 10-04-2024 | 15:45 - 16:00 | 2.34  | 00:00 - 00:15    | 10.00 | 20:45 - 21:00 | 0.97  | 13:00 - 13:15    | 2.63  |
| 11-04-2024 | 06:45 - 07:00 | 2.20  | 00:00 - 00:15    | 10.00 | 20:45 - 21:00 | 0.96  | 13:00 - 13:15    | 2.28  |
| 12-04-2024 | 15:45 - 16:00 | 2.35  | 00:00 - 00:15    | 10.00 | 20:45 - 21:00 | 1.05  | 13:00 - 13:15    | 2.35  |
| 13-04-2024 | 16:45 - 17:00 | 2.28  | 00:00 - 00:15    | 5.67  | 21:45 - 22:00 | 1.03  | 13:00 - 13:15    | 2.28  |
| 14-04-2024 | 15:45 - 16:00 | 2.17  | 00:00 - 00:15    | 4.40  | 23:45 - 24:00 | 1.11  | 13:15 - 13:30    | 2.02  |
| 15-04-2024 | 15:45 - 16:00 | 2.60  | 23:15 - 23:30    | 5.76  | 01:45 - 02:00 | 1.20  | 13:15 - 13:30    | 2.28  |
| 16-04-2024 | 15:45 - 16:00 | 2.54  | 23:30 - 23:45    | 10.00 | 02:00 - 02:15 | 1.12  | 13:15 - 13:30    | 2.68  |
| 17-04-2024 | 16:15 - 16:30 | 2.25  | 00:00 - 00:15    | 10.00 | 20:45 - 21:00 | 1.04  | 13:00 - 13:15    | 2.50  |
| 18-04-2024 | 16:45 - 17:00 | 2.40  | 00:00 - 00:15    | 10.00 | 21:00 - 21:15 | 0.53  | 13:15 - 13:30    | 2.54  |
| 19-04-2024 | 15:15 - 15:30 | 2.42  | 00:00 - 00:15    | 10.00 | 23:45 - 24:00 | 0.58  | 13:00 - 13:15    | 2.00  |
| 20-04-2024 | 15:30 - 15:45 | 2.28  | 00:00 - 00:15    | 10.00 | 00:00 - 00:15 | 0.59  | 13:15 - 13:30    | 2.05  |
| 21-04-2024 | 06:30 - 06:45 | 1.59  | 00:00 - 00:15    | 10.00 | 00:00 - 00:15 | 0.64  | 13:00 - 13:15    | 1.71  |
| 22-04-2024 | 15:15 - 15:30 | 2.02  | 00:00 - 00:15    | 10.00 | 04:45 - 05:00 | 0.60  | 13:00 - 13:15    | 2.00  |
| 23-04-2024 | 15:15 - 15:30 | 2.18  | 00:00 - 00:15    | 10.00 | 23:45 - 24:00 | 0.58  | 13:15 - 13:30    | 2.02  |
| 24-04-2024 | 15:45 - 16:00 | 1.87  | 00:00 - 00:15    | 10.00 | 23:45 - 24:00 | 0.67  | 13:00 - 13:15    | 2.00  |
| 25-04-2024 | 15:15 - 15:30 | 1.80  | 00:00 - 00:15    | 10.00 | 23:45 - 24:00 | 0.63  | 13:30 - 13:45    | 2.16  |
| 26-04-2024 | 16:45 - 17:00 | 1.86  | 00:00 - 00:15    | 10.00 | 00:00 - 00:15 | 0.58  | 12:45 - 13:00    | 2.02  |
| 27-04-2024 | 15:45 - 16:00 | 2.16  | 00:00 - 00:15    | 10.00 | 00:30 - 00:45 | 0.44  | 13:15 - 13:30    | 2.19  |
| 28-04-2024 | 15:15 - 15:30 | 2.19  | 00:00 - 00:15    | 10.00 | 00:15 - 00:30 | 0.52  | 10:00 - 10:15    | 2.68  |
| 29-04-2024 | 16:30 - 16:45 | 2.05  | 00:00 - 00:15    | 10.00 | 00:00 - 00:15 | 0.34  | 13:00 - 13:15    | 2.98  |
| 30-04-2024 | 15:45 - 16:00 | 2.33  | 00:00 - 00:15    | 10.00 | 00:00 - 00:15 | 0.41  | 11:00 - 11:15    | 3.13  |

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

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

| S. No. | Entity Name            | Sell   |             | Entity Name                | Purchase |             |
|--------|------------------------|--------|-------------|----------------------------|----------|-------------|
|        |                        | (MU)   | Percent (%) |                            | (MU)     | Percent (%) |
| 1      | Uttar Pradesh          | 859.59 | 20.79%      | Gujarat                    | 797.25   | 19.28%      |
| 2      | Haryana                | 428.86 | 10.37%      | Telangana                  | 512.50   | 12.39%      |
| 3      | Chhattisgarh           | 241.14 | 5.83%       | Uttarakhand                | 336.99   | 8.15%       |
| 4      | Madhya Pradesh         | 228.39 | 5.52%       | Maharashtra                | 283.56   | 6.86%       |
| 5      | Delhi                  | 197.12 | 4.77%       | Uttar Pradesh              | 227.03   | 5.49%       |
| 6      | DB Power               | 131.72 | 3.19%       | West Bengal                | 212.70   | 5.14%       |
| 7      | Himachal Pradesh       | 116.67 | 2.82%       | Karnataka                  | 180.13   | 4.36%       |
| 8      | Jindal Power Ltd. Stg- | 107.44 | 2.60%       | Tamilnadu                  | 177.79   | 4.30%       |
| 9      | ADANI                  | 81.81  | 1.98%       | NVVN (SNA) - NEA           | 172.84   | 4.18%       |
| 10     | Mahan Energy           | 81.70  | 1.98%       | Himachal Pradesh           | 154.29   | 3.73%       |
| 11     | Barh Stg-2             | 80.14  | 1.94%       | Andhra Pradesh             | 123.59   | 2.99%       |
| 12     | JITPL                  | 79.93  | 1.93%       | Druk Green Power           | 121.38   | 2.94%       |
| 13     | Maharashtra            | 78.30  | 1.89%       | Rajasthan                  | 119.36   | 2.89%       |
| 14     | Jindal Steel           | 71.34  | 1.73%       | Orissa                     | 116.20   | 2.81%       |
| 15     | Adani Power Limited-   | 64.04  | 1.55%       | J&K                        | 115.03   | 2.78%       |
| 16     | Punjab                 | 62.96  | 1.52%       | Kerala                     | 84.06    | 2.03%       |
| 17     | Gujarat                | 62.68  | 1.52%       | Bihar                      | 60.37    | 1.46%       |
| 18     | West Bengal            | 48.98  | 1.18%       | Madhya Pradesh             | 41.71    | 1.01%       |
| 19     | Jindal Power           | 44.17  | 1.07%       | Meghalaya                  | 36.90    | 0.89%       |
| 20     | Rajasthan              | 43.23  | 1.05%       | Daman & Diu - Dadra &      | 36.40    | 0.88%       |
| 21     | Telangana              | 42.10  | 1.02%       | ArcelorMittal Nippon steel | 31.42    | 0.76%       |
| 22     | RENEW SURYA            | 38.16  | 0.92%       | Punjab                     | 30.46    | 0.74%       |
| 23     | ACBIL                  | 38.03  | 0.92%       | MB Power                   | 21.24    | 0.51%       |
| 24     | Adani Power Limited    | 36.92  | 0.89%       | Haryana                    | 20.05    | 0.48%       |
| 25     | Andhra Pradesh         | 36.68  | 0.89%       | Manipur                    | 19.76    | 0.48%       |
| 26     | Renew Surya Ravi       | 36.36  | 0.88%       | NEA-NR                     | 18.64    | 0.45%       |
| 27     | Sembcorp Energy        | 34.72  | 0.84%       | Railways                   | 16.34    | 0.40%       |
| 28     | Chandigarh             | 34.65  | 0.84%       | NEA - Bihar STU            | 13.86    | 0.34%       |
| 29     | ADANI SOLAR            | 30.49  | 0.74%       | Sikkim                     | 12.87    | 0.31%       |
| 30     | Goa WR                 | 30.34  | 0.73%       | Goa SR                     | 11.20    | 0.27%       |
| 31     | DVC                    | 28.81  | 0.70%       | Jharkhand                  | 7.54     | 0.18%       |
| 32     | Adept Renewable        | 28.70  | 0.69%       | Delhi                      | 4.67     | 0.11%       |
| 33     | RKM Power              | 28.57  | 0.69%       | Chhattisgarh               | 3.82     | 0.09%       |
| 34     | TRN Energy             | 27.00  | 0.65%       | SKS Power                  | 3.57     | 0.09%       |
| 35     | Orissa                 | 25.03  | 0.61%       | Goa WR                     | 3.22     | 0.08%       |
| 36     | AD Hydro               | 24.82  | 0.60%       | Nagaland                   | 1.76     | 0.04%       |
| 37     | Karcham Wangtoo        | 23.58  | 0.57%       | Tripura                    | 1.35     | 0.03%       |
| 38     | ADANI WIND             | 23.22  | 0.56%       | DVC                        | 1.28     | 0.03%       |
| 39     | Pondicherry            | 23.16  | 0.56%       | Chandigarh                 | 1.21     | 0.03%       |
| 40     | Adani Green Energy     | 22.53  | 0.54%       | Jhabua Power               | 0.55     | 0.01%       |
| 41     | Onevolt Energy         | 21.73  | 0.53%       | Arunachal Pradesh          | 0.32     | 0.01%       |
| 42     | Jaypee Nigrie          | 21.39  | 0.52%       | Assam                      | 0.08     | 0.002%      |
| 43     | Amp Energy Green       | 20.98  | 0.51%       |                            |          |             |
| 44     | DGEN Mega Power        | 18.35  | 0.44%       |                            |          |             |
| 45     | ADANI SOLAR            | 16.62  | 0.40%       |                            |          |             |
| 46     | IND BARATH             | 14.82  | 0.36%       |                            |          |             |
| 47     | SKS Power              | 13.37  | 0.32%       |                            |          |             |
| 48     | Tamilnadu              | 13.03  | 0.32%       |                            |          |             |
| 49     | Grian Energy Private   | 12.67  | 0.31%       |                            |          |             |
| 50     | ADANI WIND             | 11.47  | 0.28%       |                            |          |             |
| 51     | Adani Green Energy     | 10.38  | 0.25%       |                            |          |             |

|     |                     |      |       |  |  |  |
|-----|---------------------|------|-------|--|--|--|
| 52  | Sainj HEP           | 9.57 | 0.23% |  |  |  |
| 53  | KSK Mahanadi        | 9.51 | 0.23% |  |  |  |
| 54  | Ramagundam Floating | 9.26 | 0.22% |  |  |  |
| 55  | ADANI SOLAR         | 8.94 | 0.22% |  |  |  |
| 56  | Barh STPS Stg - I   | 8.36 | 0.20% |  |  |  |
| 57  | Dhariwal ISTS       | 8.27 | 0.20% |  |  |  |
| 58  | Rihand-II           | 7.67 | 0.19% |  |  |  |
| 59  | Sorang HEP,         | 7.51 | 0.18% |  |  |  |
| 60  | ADANI SOLAR         | 7.16 | 0.17% |  |  |  |
| 61  | RENEW SURYA         | 6.90 | 0.17% |  |  |  |
| 62  | IL&FS               | 6.65 | 0.16% |  |  |  |
| 63  | Rihand-I            | 6.36 | 0.15% |  |  |  |
| 64  | WIND FIVE           | 6.33 | 0.15% |  |  |  |
| 65  | RENEW SURYA         | 5.90 | 0.14% |  |  |  |
| 66  | Rihand-III          | 5.87 | 0.14% |  |  |  |
| 67  | Dadri TPS           | 5.67 | 0.14% |  |  |  |
| 68  | Sembcorp Gayatri    | 5.54 | 0.13% |  |  |  |
| 69  | Adani Green Energy  | 4.69 | 0.11% |  |  |  |
| 70  | NTPP BRBCL          | 4.30 | 0.10% |  |  |  |
| 71  | Singoli Bhagwati    | 4.26 | 0.10% |  |  |  |
| 72  | Bihar               | 4.20 | 0.10% |  |  |  |
| 73  | Ostro Kannada Power | 3.98 | 0.10% |  |  |  |
| 74  | Nabinagar Power     | 3.62 | 0.09% |  |  |  |
| 75  | Maruti Clean Coal   | 3.57 | 0.09% |  |  |  |
| 76  | NTPC Anta Solar     | 3.56 | 0.09% |  |  |  |
| 77  | ADANI               | 3.28 | 0.08% |  |  |  |
| 78  | Sikkim              | 3.27 | 0.08% |  |  |  |
| 79  | J&K                 | 3.02 | 0.07% |  |  |  |
| 80  | Khargone STPP       | 2.78 | 0.07% |  |  |  |
| 81  | NTPC Kudgi          | 2.73 | 0.07% |  |  |  |
| 82  | Singrauli           | 2.70 | 0.07% |  |  |  |
| 83  | Simhadri FSP 15 MW  | 2.68 | 0.06% |  |  |  |
| 84  | Simhapuri Energy    | 2.65 | 0.06% |  |  |  |
| 85  | Kerala              | 2.62 | 0.06% |  |  |  |
| 86  | IGSTPS JHAJJAR      | 2.62 | 0.06% |  |  |  |
| 87  | Unchahar-II         | 2.50 | 0.06% |  |  |  |
| 88  | DHARIWAL STU        | 2.49 | 0.06% |  |  |  |
| 89  | Transition Energy   | 2.39 | 0.06% |  |  |  |
| 90  | Dadri Stg-2         | 2.32 | 0.06% |  |  |  |
| 91  | Meghalaya           | 2.30 | 0.06% |  |  |  |
| 92  | Talcher             | 2.28 | 0.06% |  |  |  |
| 93  | Bongaigaon          | 2.23 | 0.05% |  |  |  |
| 94  | Darlipalli          | 2.21 | 0.05% |  |  |  |
| 95  | Mizoram             | 1.94 | 0.05% |  |  |  |
| 96  | GMR Kamalanga       | 1.84 | 0.04% |  |  |  |
| 97  | NTPC North          | 1.74 | 0.04% |  |  |  |
| 98  | Nagaland            | 1.72 | 0.04% |  |  |  |
| 99  | Farakka             | 1.72 | 0.04% |  |  |  |
| 100 | Adani Green Energy  | 1.69 | 0.04% |  |  |  |
| 101 | NTPC Simhadri 25    | 1.66 | 0.04% |  |  |  |
| 102 | Shree Cement        | 1.64 | 0.04% |  |  |  |
| 103 | KBUNL(MTPS-II)      | 1.56 | 0.04% |  |  |  |
| 104 | Amplus Ages Private | 1.19 | 0.03% |  |  |  |
| 105 | Lanco Budhil        | 1.17 | 0.03% |  |  |  |
| 106 | Uttarakhand         | 1.09 | 0.03% |  |  |  |
| 107 | Continuum Power     | 0.97 | 0.02% |  |  |  |
| 108 | RENEW SURYA         | 0.96 | 0.02% |  |  |  |

|                               |                      |                 |               |                               |                 |               |
|-------------------------------|----------------------|-----------------|---------------|-------------------------------|-----------------|---------------|
| 109                           | Korba                | 0.92            | 0.02%         |                               |                 |               |
| 110                           | Farakka Stg 3        | 0.88            | 0.02%         |                               |                 |               |
| 111                           | Kahalgaon-II         | 0.85            | 0.02%         |                               |                 |               |
| 112                           | The Tata Power Co    | 0.78            | 0.02%         |                               |                 |               |
| 113                           | Jhabua Power         | 0.73            | 0.02%         |                               |                 |               |
| 114                           | Simhadri Stg-2       | 0.62            | 0.02%         |                               |                 |               |
| 115                           | TPSL 200MW           | 0.52            | 0.01%         |                               |                 |               |
| 116                           | Sipat Stg-2          | 0.45            | 0.01%         |                               |                 |               |
| 117                           | Kahalgaon            | 0.41            | 0.01%         |                               |                 |               |
| 118                           | Unchahar-III         | 0.34            | 0.01%         |                               |                 |               |
| 119                           | Vindhyachal stg-3    | 0.34            | 0.01%         |                               |                 |               |
| 120                           | Vindhyachal stg-2    | 0.34            | 0.01%         |                               |                 |               |
| 121                           | NTECL Vallur         | 0.32            | 0.01%         |                               |                 |               |
| 122                           | GMR Warora           | 0.30            | 0.01%         |                               |                 |               |
| 123                           | Unchahar-I           | 0.30            | 0.01%         |                               |                 |               |
| 124                           | Sipat Stg-1          | 0.29            | 0.01%         |                               |                 |               |
| 125                           | ADANI GREEN          | 0.26            | 0.01%         |                               |                 |               |
| 126                           | Vindhyachal stg-1    | 0.21            | 0.0050%       |                               |                 |               |
| 127                           | Simhadri Stg-1       | 0.19            | 0.0047%       |                               |                 |               |
| 128                           | Karnataka            | 0.17            | 0.0041%       |                               |                 |               |
| 129                           | NTPC Sholapur        | 0.16            | 0.0038%       |                               |                 |               |
| 130                           | Tanda Stg-2          | 0.15            | 0.0035%       |                               |                 |               |
| 131                           | MB Power             | 0.14            | 0.0035%       |                               |                 |               |
| 132                           | Unchahar-IV          | 0.13            | 0.0031%       |                               |                 |               |
| 133                           | RENEW SURYA          | 0.12            | 0.0030%       |                               |                 |               |
| 134                           | BALCO 2              | 0.12            | 0.0029%       |                               |                 |               |
| 135                           | Arunachal Pradesh    | 0.10            | 0.0023%       |                               |                 |               |
| 136                           | Ramagundam Stg-1     | 0.09            | 0.0022%       |                               |                 |               |
| 137                           | Mouda Stg-2          | 0.09            | 0.0021%       |                               |                 |               |
| 138                           | Maithon Power        | 0.07            | 0.0016%       |                               |                 |               |
| 139                           | NLC TPS-II Expn      | 0.06            | 0.0016%       |                               |                 |               |
| 140                           | NTPC Gadawara        | 0.06            | 0.0016%       |                               |                 |               |
| 141                           | NLC TPS-II           | 0.06            | 0.0014%       |                               |                 |               |
| 142                           | Mouda Stg-1          | 0.05            | 0.0012%       |                               |                 |               |
| 143                           | NLC TPS-II Stg-2     | 0.04            | 0.0010%       |                               |                 |               |
| 144                           | Talcher Stg-2        | 0.04            | 0.0010%       |                               |                 |               |
| 145                           | NLC                  | 0.04            | 0.0009%       |                               |                 |               |
| 146                           | Kopili Power Station | 0.02            | 0.0005%       |                               |                 |               |
| 147                           | Neyveli New Thermal  | 0.01            | 0.0003%       |                               |                 |               |
| 148                           | Nani Virani Wind     | 0.01            | 0.0003%       |                               |                 |               |
| 149                           | Ramagundam Stg-3     | 0.01            | 0.0002%       |                               |                 |               |
| 150                           | NTPL                 | 0.01            | 0.0001%       |                               |                 |               |
| <b>Total Volume of top 10</b> |                      | <b>2,474.45</b> | <b>59.84%</b> | <b>Total Volume of top 10</b> | <b>3,055.08</b> | <b>73.88%</b> |
| <b>Total Volume in PXs</b>    |                      | <b>4,135.27</b> |               | <b>Total Volume in PXs</b>    | <b>4,135.27</b> |               |

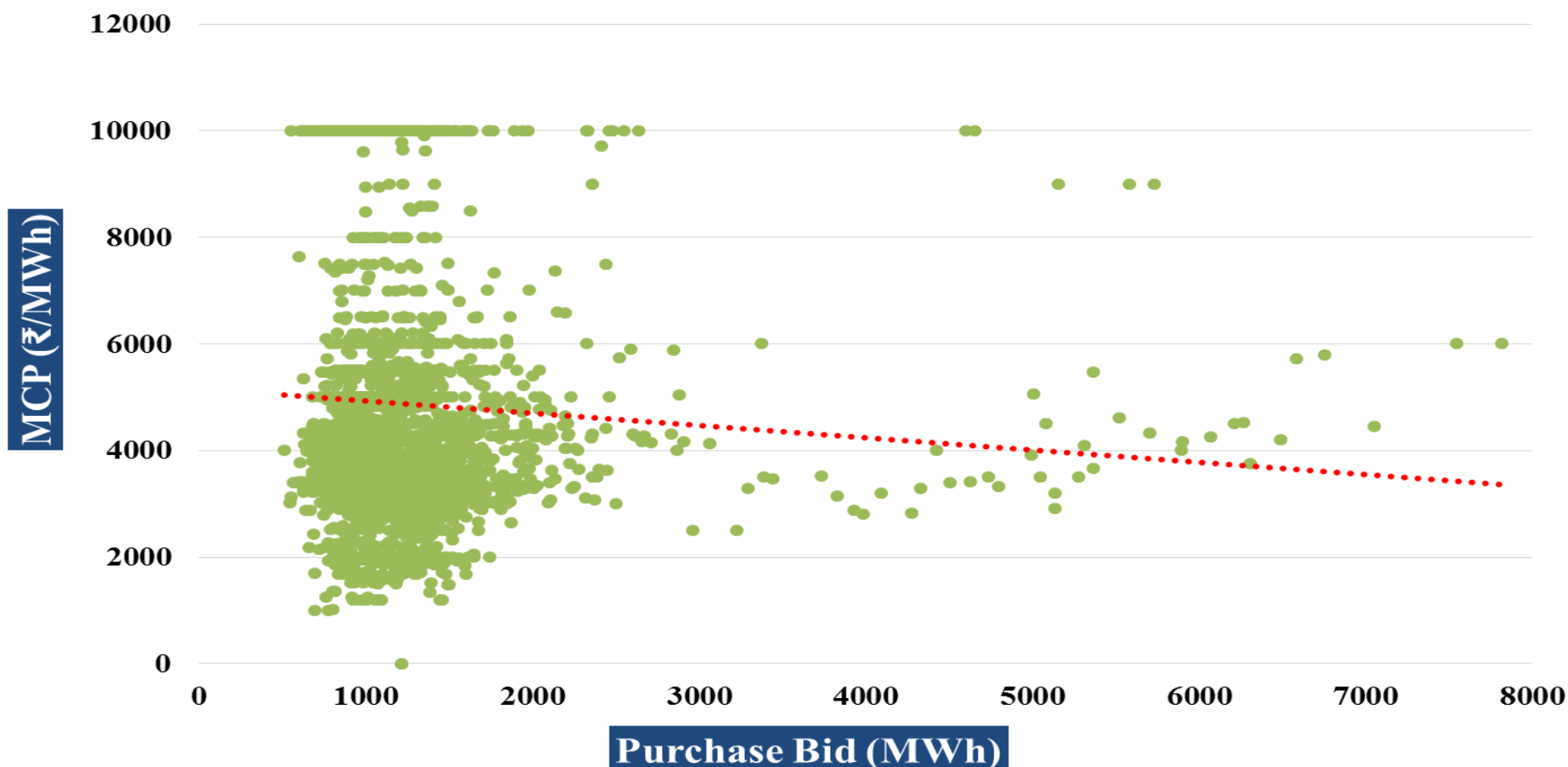
**Annexure-VIII****Evening, Day, Night, Morning, Maximum, Minimum, Wt. Avg. MCP (₹/kWh) and Final Scheduled Volume (MU) under RTM**

| Date       | Morning MCP<br>(07:00-10:00) | Day MCP<br>(11:00-17:00) | Evening MCP<br>(18:00- 23:00) | Night MCP (01:00-<br>06:00, 23:00-24:00) | Maximum<br>MCP | Minimum<br>MCP | Wt. Avg.<br>MCP | Final Scheduled<br>Volume (MU) |
|------------|------------------------------|--------------------------|-------------------------------|------------------------------------------|----------------|----------------|-----------------|--------------------------------|
| 01-04-2024 | 3.08                         | 2.24                     | 4.37                          | 3.79                                     | 6.00           | 1.34           | 3.36            | 96.11                          |
| 02-04-2024 | 3.25                         | 2.99                     | 6.17                          | 5.05                                     | 10.00          | 1.69           | 4.43            | 105.71                         |
| 03-04-2024 | 4.18                         | 3.88                     | 8.34                          | 5.87                                     | 10.00          | 2.50           | 5.62            | 92.84                          |
| 04-04-2024 | 5.47                         | 4.21                     | 9.73                          | 7.07                                     | 10.00          | 2.99           | 6.63            | 86.59                          |
| 05-04-2024 | 5.93                         | 3.86                     | 8.57                          | 7.63                                     | 10.00          | 3.03           | 6.48            | 90.99                          |
| 06-04-2024 | 5.50                         | 3.78                     | 8.88                          | 7.37                                     | 10.00          | 2.70           | 6.39            | 90.64                          |
| 07-04-2024 | 4.66                         | 2.59                     | 3.67                          | 6.39                                     | 10.00          | 1.52           | 4.31            | 93.95                          |
| 08-04-2024 | 3.41                         | 2.77                     | 4.52                          | 3.98                                     | 6.50           | 1.93           | 3.67            | 80.19                          |
| 09-04-2024 | 3.37                         | 2.72                     | 4.19                          | 3.96                                     | 7.00           | 1.93           | 3.56            | 82.29                          |
| 10-04-2024 | 3.58                         | 2.90                     | 3.61                          | 3.48                                     | 4.47           | 1.69           | 3.36            | 83.85                          |
| 11-04-2024 | 3.24                         | 2.62                     | 3.65                          | 3.55                                     | 4.47           | 1.88           | 3.25            | 94.52                          |
| 12-04-2024 | 3.25                         | 2.81                     | 3.67                          | 3.68                                     | 4.38           | 1.49           | 3.35            | 84.74                          |
| 13-04-2024 | 3.54                         | 3.12                     | 3.49                          | 3.71                                     | 5.00           | 1.63           | 3.45            | 112.27                         |
| 14-04-2024 | 3.63                         | 2.14                     | 3.71                          | 4.14                                     | 5.22           | 1.01           | 3.36            | 86.76                          |
| 15-04-2024 | 4.33                         | 3.55                     | 5.94                          | 5.01                                     | 10.00          | 2.78           | 4.70            | 82.40                          |
| 16-04-2024 | 5.25                         | 3.04                     | 7.56                          | 7.17                                     | 10.00          | 1.58           | 5.74            | 91.35                          |
| 17-04-2024 | 4.82                         | 3.13                     | 6.01                          | 7.65                                     | 10.00          | 1.65           | 5.35            | 93.15                          |
| 18-04-2024 | 5.18                         | 3.36                     | 8.15                          | 7.51                                     | 10.00          | 1.92           | 6.07            | 90.25                          |
| 19-04-2024 | 4.29                         | 1.99                     | 5.63                          | 6.33                                     | 10.00          | 1.20           | 4.55            | 93.17                          |
| 20-04-2024 | 3.41                         | 2.54                     | 4.97                          | 6.47                                     | 10.00          | 1.50           | 4.44            | 87.97                          |
| 21-04-2024 | 3.45                         | 2.20                     | 4.74                          | 6.34                                     | 10.00          | 0.99           | 4.25            | 92.13                          |
| 22-04-2024 | 3.16                         | 2.92                     | 4.99                          | 5.79                                     | 10.00          | 1.95           | 4.31            | 77.27                          |
| 23-04-2024 | 3.92                         | 2.94                     | 4.84                          | 5.50                                     | 10.00          | 1.65           | 4.32            | 86.04                          |
| 24-04-2024 | 3.72                         | 2.95                     | 6.30                          | 5.25                                     | 10.00          | 1.65           | 4.58            | 82.62                          |
| 25-04-2024 | 3.98                         | 3.22                     | 7.73                          | 6.55                                     | 10.00          | 1.52           | 5.44            | 80.69                          |
| 26-04-2024 | 5.58                         | 3.43                     | 7.81                          | 8.65                                     | 10.00          | 2.50           | 6.40            | 81.27                          |
| 27-04-2024 | 4.08                         | 3.82                     | 8.79                          | 8.25                                     | 10.00          | 2.99           | 6.40            | 70.75                          |
| 28-04-2024 | 4.64                         | 2.76                     | 6.25                          | 10.00                                    | 10.00          | 1.82           | 6.06            | 75.60                          |
| 29-04-2024 | 4.08                         | 3.62                     | 8.64                          | 7.95                                     | 10.00          | 2.42           | 6.21            | 77.20                          |
| 30-04-2024 | 4.89                         | 3.90                     | 8.88                          | 7.95                                     | 10.00          | 2.95           | 6.49            | 85.25                          |
| Maximum    | 5.93                         | 4.21                     | 9.73                          | 10.00                                    | 10.00          | 3.03           | 6.63            | 112.27                         |
| Minimum    | 3.08                         | 1.99                     | 3.49                          | 3.48                                     | 4.38           | 0.99           | 3.25            | 70.75                          |
| Average    | 4.16                         | 3.07                     | 6.13                          | 6.07                                     | 8.77           | 1.95           | 4.89            | 87.62                          |

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 April, 2024 under RTM



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

**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 |
| 01-04-2024 | 13:00 - 13:15 | 0.94  | 15:45 - 16:00    | 10.00 | 18:00 - 18:15 | 0.30  | 04:00 - 04:15    | 3.42  |
| 02-04-2024 | 12:45 - 13:00 | 1.07  | 16:30 - 16:45    | 10.00 | 18:00 - 18:15 | 0.26  | 04:00 - 04:15    | 3.43  |
| 03-04-2024 | 15:30 - 15:45 | 1.11  | 15:30 - 15:45    | 10.00 | 17:45 - 18:00 | 0.32  | 23:45 - 24:00    | 3.78  |
| 04-04-2024 | 17:00 - 17:15 | 1.31  | 16:45 - 17:00    | 10.00 | 00:30 - 00:45 | 0.45  | 21:00 - 21:15    | 3.21  |
| 05-04-2024 | 17:00 - 17:15 | 1.10  | 18:00 - 18:15    | 6.39  | 09:15 - 09:30 | 0.32  | 13:15 - 13:30    | 2.10  |
| 06-04-2024 | 16:45 - 17:00 | 0.98  | 17:45 - 18:00    | 9.50  | 04:30 - 04:45 | 0.41  | 01:15 - 01:30    | 2.43  |
| 07-04-2024 | 19:00 - 19:15 | 1.04  | 17:15 - 17:30    | 10.00 | 21:15 - 21:30 | 0.47  | 00:00 - 00:15    | 2.89  |
| 08-04-2024 | 14:45 - 15:00 | 1.12  | 17:30 - 17:45    | 10.00 | 17:45 - 18:00 | 0.38  | 01:15 - 01:30    | 3.22  |
| 09-04-2024 | 19:15 - 19:30 | 0.84  | 17:15 - 17:30    | 10.00 | 01:15 - 01:30 | 0.39  | 04:00 - 04:15    | 3.00  |
| 10-04-2024 | 04:45 - 05:00 | 0.87  | 18:00 - 18:15    | 10.00 | 05:30 - 05:45 | 0.44  | 21:45 - 22:00    | 2.50  |
| 11-04-2024 | 13:45 - 14:00 | 1.23  | 18:00 - 18:15    | 5.00  | 11:15 - 11:30 | 0.44  | 13:00 - 13:15    | 1.00  |
| 12-04-2024 | 15:30 - 15:45 | 1.94  | 17:45 - 18:00    | 3.99  | 19:15 - 19:30 | 0.51  | 13:00 - 13:15    | 0.70  |
| 13-04-2024 | 12:45 - 13:00 | 1.50  | 18:00 - 18:15    | 4.37  | 07:30 - 07:45 | 0.58  | 11:30 - 11:45    | 1.30  |
| 14-04-2024 | 19:45 - 20:00 | 1.10  | 17:45 - 18:00    | 5.51  | 11:00 - 11:15 | 0.52  | 00:15 - 00:30    | 2.00  |
| 15-04-2024 | 16:45 - 17:00 | 1.17  | 17:45 - 18:00    | 10.00 | 13:15 - 13:30 | 0.64  | 00:00 - 00:15    | 1.74  |
| 16-04-2024 | 16:30 - 16:45 | 1.46  | 17:30 - 17:45    | 10.00 | 00:30 - 00:45 | 0.49  | 03:30 - 03:45    | 2.13  |
| 17-04-2024 | 18:45 - 19:00 | 1.56  | 16:45 - 17:00    | 10.00 | 17:45 - 18:00 | 0.64  | 01:00 - 01:15    | 2.50  |
| 18-04-2024 | 15:30 - 15:45 | 1.19  | 17:00 - 17:15    | 10.00 | 17:30 - 17:45 | 0.58  | 03:15 - 03:30    | 2.92  |
| 19-04-2024 | 17:15 - 17:30 | 1.08  | 17:45 - 18:00    | 10.00 | 10:00 - 10:15 | 0.46  | 23:45 - 24:00    | 1.50  |
| 20-04-2024 | 14:45 - 15:00 | 1.15  | 16:45 - 17:00    | 10.00 | 05:45 - 06:00 | 0.53  | 00:15 - 00:30    | 1.20  |
| 21-04-2024 | 02:15 - 02:30 | 1.18  | 17:00 - 17:15    | 10.00 | 09:00 - 09:15 | 0.55  | 01:45 - 02:00    | 1.76  |
| 22-04-2024 | 22:45 - 23:00 | 1.25  | 17:00 - 17:15    | 10.00 | 08:30 - 08:45 | 0.66  | 03:30 - 03:45    | 3.00  |
| 23-04-2024 | 19:00 - 19:15 | 1.03  | 17:00 - 17:15    | 10.00 | 09:00 - 09:15 | 0.54  | 02:30 - 02:45    | 2.82  |
| 24-04-2024 | 17:00 - 17:15 | 1.19  | 17:15 - 17:30    | 10.00 | 03:45 - 04:00 | 0.55  | 19:30 - 19:45    | 2.00  |
| 25-04-2024 | 17:00 - 17:15 | 1.35  | 17:45 - 18:00    | 9.80  | 07:45 - 08:00 | 0.46  | 13:30 - 13:45    | 1.74  |
| 26-04-2024 | 21:30 - 21:45 | 1.24  | 09:00 - 09:15    | 4.00  | 07:45 - 08:00 | 0.50  | 19:30 - 19:45    | 1.20  |
| 27-04-2024 | 05:30 - 05:45 | 1.54  | 17:45 - 18:00    | 8.51  | 20:00 - 20:15 | 0.69  | 16:00 - 16:15    | 1.20  |
| 28-04-2024 | 17:45 - 18:00 | 1.78  | 17:45 - 18:00    | 5.00  | 11:15 - 11:30 | 0.65  | 00:00 - 00:15    | 1.52  |
| 29-04-2024 | 18:15 - 18:30 | 1.34  | 17:45 - 18:00    | 10.00 | 00:30 - 00:45 | 0.60  | 01:45 - 02:00    | 1.80  |
| 30-04-2024 | 17:45 - 18:00 | 1.46  | 17:45 - 18:00    | 9.50  | 00:30 - 00:45 | 0.64  | 13:15 - 13:30    | 1.53  |

MCP: Market Clearing Price (₹/kWh)

FSV: Final Scheduled Volume (MU)

| Sellers and Buyers under Real Time Market (RTM) in April, 2024 |                   |        |             |                            |          |             |
|----------------------------------------------------------------|-------------------|--------|-------------|----------------------------|----------|-------------|
| S. No.                                                         | Entity Name       | Sell   |             | Entity Name                | Purchase |             |
|                                                                |                   | (MU)   | Percent (%) |                            | (MU)     | Percent (%) |
| 1                                                              | Madhya Pradesh    | 343.42 | 13.04%      | Telangana                  | 338.91   | 12.87%      |
| 2                                                              | Uttar Pradesh     | 264.69 | 10.05%      | Maharashtra                | 245.47   | 9.32%       |
| 3                                                              | Haryana           | 217.38 | 8.25%       | Rajasthan                  | 239.76   | 9.10%       |
| 4                                                              | Chhattisgarh      | 191.86 | 7.29%       | Uttar Pradesh              | 168.14   | 6.39%       |
| 5                                                              | Bihar             | 178.97 | 6.80%       | J&K                        | 154.95   | 5.88%       |
| 6                                                              | Assam             | 138.24 | 5.25%       | Tamilnadu                  | 141.64   | 5.38%       |
| 7                                                              | Punjab            | 103.93 | 3.95%       | Andhra Pradesh             | 133.20   | 5.06%       |
| 8                                                              | Rajasthan         | 89.76  | 3.41%       | Punjab                     | 129.43   | 4.91%       |
| 9                                                              | West Bengal       | 75.94  | 2.88%       | Orissa                     | 119.47   | 4.54%       |
| 10                                                             | Orissa            | 74.61  | 2.83%       | West Bengal                | 112.92   | 4.29%       |
| 11                                                             | Delhi             | 72.55  | 2.76%       | Karnataka                  | 112.36   | 4.27%       |
| 12                                                             | Maharashtra       | 72.36  | 2.75%       | Himachal Pradesh           | 110.27   | 4.19%       |
| 13                                                             | Andhra Pradesh    | 55.80  | 2.12%       | Kerala                     | 79.49    | 3.02%       |
| 14                                                             | Jharkhand         | 55.58  | 2.11%       | Gujarat                    | 71.89    | 2.73%       |
| 15                                                             | Himachal Pradesh  | 43.08  | 1.64%       | Bihar                      | 70.16    | 2.66%       |
| 16                                                             | DVC               | 32.11  | 1.22%       | Uttarakhand                | 54.69    | 2.08%       |
| 17                                                             | Gujarat           | 30.10  | 1.14%       | Jharkhand                  | 39.71    | 1.51%       |
| 18                                                             | MB Power          | 26.86  | 1.02%       | Delhi                      | 37.49    | 1.42%       |
| 19                                                             | Telangana         | 22.91  | 0.87%       | Daman & Diu - Dadra &      | 29.21    | 1.11%       |
| 20                                                             | Pondicherry       | 19.87  | 0.75%       | DVC                        | 23.96    | 0.91%       |
| 21                                                             | J&K               | 18.27  | 0.69%       | Tripura                    | 23.81    | 0.90%       |
| 22                                                             | Manipur           | 15.48  | 0.59%       | Madhya Pradesh             | 22.18    | 0.84%       |
| 23                                                             | BALCO 2           | 14.41  | 0.55%       | Simhapuri Energy Limited   | 20.68    | 0.79%       |
| 24                                                             | The Tata Power Co | 14.37  | 0.55%       | Shree Cement               | 20.23    | 0.77%       |
| 25                                                             | TRN Energy        | 14.15  | 0.54%       | Druk Green Power           | 17.41    | 0.66%       |
| 26                                                             | DGEN Mega Power   | 13.98  | 0.53%       | Chhattisgarh               | 14.41    | 0.55%       |
| 27                                                             | RKM Power         | 13.94  | 0.53%       | Assam                      | 14.27    | 0.54%       |
| 28                                                             | ADANI WIND        | 13.20  | 0.50%       | ArcelorMittal Nippon steel | 13.82    | 0.52%       |
| 29                                                             | Sasan UMPP        | 12.91  | 0.49%       | MB Power                   | 8.96     | 0.34%       |
| 30                                                             | Tanda Stg-2       | 12.07  | 0.46%       | SKS Power                  | 7.69     | 0.29%       |
| 31                                                             | Kameng HEP        | 11.62  | 0.44%       | Haryana                    | 7.65     | 0.29%       |
| 32                                                             | Kahalgaoon-II     | 11.41  | 0.43%       | Meghalaya                  | 7.33     | 0.28%       |
| 33                                                             | RENEW SURYA       | 11.28  | 0.43%       | Manipur                    | 7.29     | 0.28%       |
| 34                                                             | Adani Power       | 11.13  | 0.42%       | Arunachal Pradesh          | 7.21     | 0.27%       |
| 35                                                             | Tamilnadu         | 11.00  | 0.42%       | Adani Power Limited-       | 5.56     | 0.21%       |
| 36                                                             | RENEW SURYA       | 10.52  | 0.40%       | Goa SR                     | 4.56     | 0.17%       |
| 37                                                             | IGSTPS JHAJJAR    | 10.42  | 0.40%       | Railways                   | 4.39     | 0.17%       |
| 38                                                             | Singrauli         | 10.07  | 0.38%       | Nagaland                   | 2.56     | 0.10%       |
| 39                                                             | Rihand-I          | 9.11   | 0.35%       | BHARAT ALUMINIUM           | 2.54     | 0.10%       |
| 40                                                             | Mahan Energy      | 9.02   | 0.34%       | Mahan Energy Limited       | 1.62     | 0.06%       |
| 41                                                             | Sikkim            | 8.84   | 0.34%       | Goa WR                     | 1.51     | 0.06%       |
| 42                                                             | Arunachal Pradesh | 8.49   | 0.32%       | Doyang HPS, NEEPCO         | 1.15     | 0.04%       |
| 43                                                             | NREL-Dayapar      | 8.47   | 0.32%       | Sikkim                     | 0.83     | 0.03%       |
| 44                                                             | Rihand-III        | 8.46   | 0.32%       | Ratnagiri Gas & Power      | 0.78     | 0.03%       |
| 45                                                             | Jhabua Power      | 7.82   | 0.30%       | ACBIL                      | 0.28     | 0.01%       |
| 46                                                             | Jindal Power Ltd. | 7.67   | 0.29%       | Kawas                      | 0.28     | 0.01%       |
| 47                                                             | Rihand-II         | 7.54   | 0.29%       | Bongaigaon                 | 0.24     | 0.01%       |

|    |                    |      |       |                  |      |        |
|----|--------------------|------|-------|------------------|------|--------|
| 48 | Sembcorp Energy    | 7.35 | 0.28% | Gandhar          | 0.22 | 0.01%  |
| 49 | ADANI              | 7.22 | 0.27% | NEA - Bihar STU  | 0.18 | 0.01%  |
| 50 | ACBIL              | 6.39 | 0.24% | NVVN (SNA) - NEA | 0.18 | 0.01%  |
| 51 | ADHUNIK POWER      | 6.15 | 0.23% | Sainj HEP        | 0.14 | 0.01%  |
| 52 | Kerala             | 6.12 | 0.23% | Palatana         | 0.13 | 0.005% |
| 53 | Kahalgaoon         | 5.89 | 0.22% | Mizoram          | 0.12 | 0.004% |
| 54 | Bongaigaon         | 5.79 | 0.22% | NEA-NR           | 0.06 | 0.002% |
| 55 | Uttarakhand        | 5.77 | 0.22% | Jhabua Power     | 0.03 | 0.001% |
| 56 | Khargone STPP      | 5.35 | 0.20% |                  |      |        |
| 57 | Renew Surya Ravi   | 4.96 | 0.19% |                  |      |        |
| 58 | Adani Power        | 4.60 | 0.17% |                  |      |        |
| 59 | NTPC Gadarwara     | 4.55 | 0.17% |                  |      |        |
| 60 | Amp Energy Green   | 4.14 | 0.16% |                  |      |        |
| 61 | NTPC Anta Solar    | 4.07 | 0.15% |                  |      |        |
| 62 | Unchahar-IV        | 3.92 | 0.15% |                  |      |        |
| 63 | DB Power           | 3.75 | 0.14% |                  |      |        |
| 64 | Goa WR             | 3.62 | 0.14% |                  |      |        |
| 65 | RENEW SURYA        | 3.59 | 0.14% |                  |      |        |
| 66 | Onevolt Energy     | 3.48 | 0.13% |                  |      |        |
| 67 | Barh STPS Stg - I  | 3.47 | 0.13% |                  |      |        |
| 68 | Sembcorp Gayatri   | 3.42 | 0.13% |                  |      |        |
| 69 | Amplus Ages        | 3.34 | 0.13% |                  |      |        |
| 70 | Simhadri Stg-1     | 3.17 | 0.12% |                  |      |        |
| 71 | Dadri Stg-2        | 3.14 | 0.12% |                  |      |        |
| 72 | Neyveli New        | 3.14 | 0.12% |                  |      |        |
| 73 | Nabinagar Power    | 2.97 | 0.11% |                  |      |        |
| 74 | RENEW SURYA        | 2.91 | 0.11% |                  |      |        |
| 75 | Adani Green Energy | 2.90 | 0.11% |                  |      |        |
| 76 | KSK Mahanadi       | 2.88 | 0.11% |                  |      |        |
| 77 | SKS Power          | 2.76 | 0.10% |                  |      |        |
| 78 | Farakka            | 2.65 | 0.10% |                  |      |        |
| 79 | Nagaland           | 2.60 | 0.10% |                  |      |        |
| 80 | GMR Warora         | 2.50 | 0.09% |                  |      |        |
| 81 | Transition Green   | 2.50 | 0.09% |                  |      |        |
| 82 | Serentica          | 2.47 | 0.09% |                  |      |        |
| 83 | Unchahar-II        | 2.43 | 0.09% |                  |      |        |
| 84 | NTPC Sholapur      | 2.41 | 0.09% |                  |      |        |
| 85 | KBUNL(MTPS-II)     | 2.40 | 0.09% |                  |      |        |
| 86 | MEENAKSHI          | 2.21 | 0.08% |                  |      |        |
| 87 | Transition         | 2.13 | 0.08% |                  |      |        |
| 88 | IL&FS              | 2.08 | 0.08% |                  |      |        |
| 89 | AGBPP              | 2.08 | 0.08% |                  |      |        |
| 90 | NTPC Kudgi         | 2.01 | 0.08% |                  |      |        |
| 91 | Barh Stg-2         | 1.98 | 0.08% |                  |      |        |
| 92 | Sorang HEP,        | 1.97 | 0.07% |                  |      |        |
| 93 | Dadri TPS          | 1.89 | 0.07% |                  |      |        |
| 94 | Singoli Bhagwati   | 1.86 | 0.07% |                  |      |        |
| 95 | Jindal Power       | 1.80 | 0.07% |                  |      |        |
| 96 | Unchahar-I         | 1.68 | 0.06% |                  |      |        |
| 97 | RENEW SURYA        | 1.67 | 0.06% |                  |      |        |
| 98 | Mouda Stg-2        | 1.66 | 0.06% |                  |      |        |
| 99 | Ramagundam Stg-1   | 1.58 | 0.06% |                  |      |        |

|     |                      |      |       |  |  |  |
|-----|----------------------|------|-------|--|--|--|
| 100 | NTPC Telangana       | 1.55 | 0.06% |  |  |  |
| 101 | Karcham Wangtoo      | 1.46 | 0.06% |  |  |  |
| 102 | Meghalaya            | 1.42 | 0.05% |  |  |  |
| 103 | Farakka Stg 3        | 1.41 | 0.05% |  |  |  |
| 104 | NTECL Vallur         | 1.37 | 0.05% |  |  |  |
| 105 | Simhadri Stg-2       | 1.33 | 0.05% |  |  |  |
| 106 | Adept Renewable      | 1.27 | 0.05% |  |  |  |
| 107 | Unchahar-III         | 1.23 | 0.05% |  |  |  |
| 108 | Mouda Stg-1          | 1.21 | 0.05% |  |  |  |
| 109 | Palatana             | 1.21 | 0.05% |  |  |  |
| 110 | NLC                  | 1.19 | 0.05% |  |  |  |
| 111 | Karnataka            | 1.18 | 0.04% |  |  |  |
| 112 | Korba                | 1.13 | 0.04% |  |  |  |
| 113 | Simhapuri Energy     | 1.12 | 0.04% |  |  |  |
| 114 | NTPP BRBCL           | 1.09 | 0.04% |  |  |  |
| 115 | Chandigarh           | 1.04 | 0.04% |  |  |  |
| 116 | ADANI SOLAR          | 1.03 | 0.04% |  |  |  |
| 117 | Tripura              | 1.00 | 0.04% |  |  |  |
| 118 | AD Hydro             | 0.99 | 0.04% |  |  |  |
| 119 | Ostro Kannada        | 0.94 | 0.04% |  |  |  |
| 120 | ADANI SOLAR          | 0.86 | 0.03% |  |  |  |
| 121 | Jindal Steel         | 0.83 | 0.03% |  |  |  |
| 122 | Sainj HEP            | 0.79 | 0.03% |  |  |  |
| 123 | Dhariwal ISTS        | 0.76 | 0.03% |  |  |  |
| 124 | NTPL                 | 0.73 | 0.03% |  |  |  |
| 125 | Daman & Diu -        | 0.69 | 0.03% |  |  |  |
| 126 | Mizoram              | 0.69 | 0.03% |  |  |  |
| 127 | ADANI SOLAR          | 0.68 | 0.03% |  |  |  |
| 128 | Vindhyachal stg-1    | 0.67 | 0.03% |  |  |  |
| 129 | NTPC Lara            | 0.66 | 0.03% |  |  |  |
| 130 | TPSL 200MW           | 0.61 | 0.02% |  |  |  |
| 131 | NLC TPS-II Stg-2     | 0.57 | 0.02% |  |  |  |
| 132 | NLC TPS-II Expn      | 0.56 | 0.02% |  |  |  |
| 133 | Sipat Stg-1          | 0.54 | 0.02% |  |  |  |
| 134 | Ayana Renewable      | 0.52 | 0.02% |  |  |  |
| 135 | ADANI SOLAR          | 0.49 | 0.02% |  |  |  |
| 136 | Lanco Budhil         | 0.49 | 0.02% |  |  |  |
| 137 | Sipat Stg-2          | 0.40 | 0.02% |  |  |  |
| 138 | NLC TPS-II           | 0.35 | 0.01% |  |  |  |
| 139 | Ramagundam Stg-3     | 0.31 | 0.01% |  |  |  |
| 140 | Adani Green Energy   | 0.30 | 0.01% |  |  |  |
| 141 | Shree Cement         | 0.29 | 0.01% |  |  |  |
| 142 | NSPCL Bhilai         | 0.26 | 0.01% |  |  |  |
| 143 | Goa SR               | 0.26 | 0.01% |  |  |  |
| 144 | IND BARATH           | 0.24 | 0.01% |  |  |  |
| 145 | Adani Green Energy   | 0.24 | 0.01% |  |  |  |
| 146 | GMR Kamalanga        | 0.20 | 0.01% |  |  |  |
| 147 | NVVN (SNA) -         | 0.18 | 0.01% |  |  |  |
| 148 | Grian Energy Private | 0.17 | 0.01% |  |  |  |
| 149 | Vindhyachal stg-4    | 0.16 | 0.01% |  |  |  |
| 150 | RENEW SURYA          | 0.16 | 0.01% |  |  |  |
| 151 | Vindhyachal stg-2    | 0.15 | 0.01% |  |  |  |

|                               |                    |                 |               |                               |                 |               |
|-------------------------------|--------------------|-----------------|---------------|-------------------------------|-----------------|---------------|
| 152                           | Vindhyachal stg-3  | 0.15            | 0.01%         |                               |                 |               |
| 153                           | Korba Stg 3        | 0.13            | 0.01%         |                               |                 |               |
| 154                           | AGTPP              | 0.13            | 0.005%        |                               |                 |               |
| 155                           | Maruti Clean Coal  | 0.12            | 0.004%        |                               |                 |               |
| 156                           | Lanco Kondapalli   | 0.11            | 0.004%        |                               |                 |               |
| 157                           | Talcher            | 0.11            | 0.004%        |                               |                 |               |
| 158                           | Talcher Stg-2      | 0.10            | 0.004%        |                               |                 |               |
| 159                           | Vindhyachal stg-5  | 0.09            | 0.003%        |                               |                 |               |
| 160                           | Darlipalli         | 0.09            | 0.003%        |                               |                 |               |
| 161                           | Chuzachen          | 0.09            | 0.003%        |                               |                 |               |
| 162                           | Adani Green Energy | 0.08            | 0.003%        |                               |                 |               |
| 163                           | NTPC North         | 0.06            | 0.002%        |                               |                 |               |
| 164                           | NTPC Simhadri 25   | 0.03            | 0.001%        |                               |                 |               |
| 165                           | WIND FIVE          | 0.03            | 0.001%        |                               |                 |               |
| 166                           | Jaypee Nigrie      | 0.02            | 0.001%        |                               |                 |               |
| 167                           | Nani Virani Wind   | 0.01            | 0.0003%       |                               |                 |               |
| 168                           | ADANI              | 0.01            | 0.0003%       |                               |                 |               |
| <b>Total Volume of top 10</b> |                    | <b>1,678.80</b> | <b>63.75%</b> | <b>Total Volume of top 10</b> | <b>1,783.90</b> | <b>67.74%</b> |
| <b>Total Volume in PXs</b>    |                    | <b>2,633.38</b> |               | <b>Total Volume in PXs</b>    | <b>2,633.38</b> |               |

### Cross Border Electricity Transactions under Day Ahead Market (DAM) in IEX with Nepal and Bhutan during the month of April, 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                  | 01-04-2024    | 4.87                     | -                         | 6.27                      | -                          |
| 2                  | 02-04-2024    | 5.20                     | -                         | 5.56                      | -                          |
| 3                  | 03-04-2024    | 6.15                     | -                         | 4.68                      | -                          |
| 4                  | 04-04-2024    | 6.30                     | -                         | 3.64                      | -                          |
| 5                  | 05-04-2024    | 6.59                     | -                         | 4.98                      | -                          |
| 6                  | 06-04-2024    | 6.59                     | -                         | 5.02                      | -                          |
| 7                  | 07-04-2024    | 6.59                     | -                         | 4.52                      | -                          |
| 8                  | 08-04-2024    | 6.59                     | -                         | 3.96                      | -                          |
| 9                  | 09-04-2024    | 6.59                     | -                         | 5.06                      | -                          |
| 10                 | 10-04-2024    | 6.59                     | -                         | 6.05                      | -                          |
| 11                 | 11-04-2024    | 6.59                     | -                         | 6.65                      | -                          |
| 12                 | 12-04-2024    | 6.59                     | -                         | 6.65                      | -                          |
| 13                 | 13-04-2024    | 6.59                     | -                         | 6.72                      | -                          |
| 14                 | 14-04-2024    | 6.59                     | -                         | 6.82                      | -                          |
| 15                 | 15-04-2024    | 6.59                     | -                         | 7.46                      | -                          |
| 16                 | 16-04-2024    | 6.59                     | -                         | 6.71                      | -                          |
| 17                 | 17-04-2024    | 6.59                     | -                         | 6.32                      | -                          |
| 18                 | 18-04-2024    | 6.59                     | -                         | 1.85                      | -                          |
| 19                 | 19-04-2024    | 6.59                     | -                         | 1.14                      | -                          |
| 20                 | 20-04-2024    | 6.59                     | -                         | -                         | -                          |
| 21                 | 21-04-2024    | 6.59                     | -                         | 0.58                      | -                          |
| 22                 | 22-04-2024    | 6.57                     | -                         | -                         | -                          |
| 23                 | 23-04-2024    | 6.58                     | -                         | -                         | -                          |
| 24                 | 24-04-2024    | 6.58                     | -                         | 0.71                      | -                          |
| 25                 | 25-04-2024    | 6.59                     | -                         | 2.53                      | -                          |
| 26                 | 26-04-2024    | 7.11                     | -                         | 2.49                      | -                          |
| 27                 | 27-04-2024    | 9.00                     | -                         | 3.92                      | -                          |
| 28                 | 28-04-2024    | 9.29                     | -                         | 4.87                      | -                          |
| 29                 | 29-04-2024    | 9.58                     | -                         | 3.89                      | -                          |
| 30                 | 30-04-2024    | 9.41                     | -                         | 2.35                      | -                          |
| <b>Total</b>       |               | <b>205.26</b>            | <b>-</b>                  | <b>121.40</b>             | <b>-</b>                   |
| <b>Grand Total</b> |               | <b>326.66</b>            |                           |                           |                            |

-: No transaction took place

**Note:** Cross Border Transactions of Electricity of **326.66 MU** (i.e. 205.26 MU bought by Nepal, 121.40 MU bought by Bhutan) happened during April, 2024 in IEX, which is included under DAM Volume of April, 2024 in IEX. No Cross Border Import Transactions of Electricity happened with Nepal and Bhutan for the month of April, 2024 in IEX under DAM.

| Cross Border Electricity Transactions under Real Time Market (RTM) in IEX with Nepal and Bhutan during the month of April, 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                                                                                                                               | 01-04-2024    | 0.16                     | 0.08                      | -                         | -                          |
| 2                                                                                                                               | 02-04-2024    | 0.02                     | -                         | -                         | -                          |
| 3                                                                                                                               | 03-04-2024    | 0.06                     | -                         | -                         | -                          |
| 4                                                                                                                               | 04-04-2024    | -                        | -                         | 0.74                      | -                          |
| 5                                                                                                                               | 05-04-2024    | -                        | -                         | 0.39                      | -                          |
| 6                                                                                                                               | 06-04-2024    | -                        | -                         | -                         | -                          |
| 7                                                                                                                               | 07-04-2024    | -                        | -                         | -                         | -                          |
| 8                                                                                                                               | 08-04-2024    | -                        | -                         | 0.65                      | -                          |
| 9                                                                                                                               | 09-04-2024    | -                        | -                         | 1.55                      | -                          |
| 10                                                                                                                              | 10-04-2024    | -                        | -                         | 1.33                      | -                          |
| 11                                                                                                                              | 11-04-2024    | -                        | -                         | 1.19                      | -                          |
| 12                                                                                                                              | 12-04-2024    | -                        | -                         | 0.86                      | -                          |
| 13                                                                                                                              | 13-04-2024    | -                        | -                         | 0.40                      | -                          |
| 14                                                                                                                              | 14-04-2024    | -                        | -                         | 0.64                      | -                          |
| 15                                                                                                                              | 15-04-2024    | -                        | -                         | -                         | -                          |
| 16                                                                                                                              | 16-04-2024    | -                        | -                         | -                         | -                          |
| 17                                                                                                                              | 17-04-2024    | -                        | -                         | -                         | -                          |
| 18                                                                                                                              | 18-04-2024    | -                        | -                         | -                         | -                          |
| 19                                                                                                                              | 19-04-2024    | -                        | -                         | -                         | -                          |
| 20                                                                                                                              | 20-04-2024    | -                        | -                         | -                         | -                          |
| 21                                                                                                                              | 21-04-2024    | -                        | -                         | -                         | -                          |
| 22                                                                                                                              | 22-04-2024    | -                        | -                         | -                         | -                          |
| 23                                                                                                                              | 23-04-2024    | -                        | -                         | 2.02                      | -                          |
| 24                                                                                                                              | 24-04-2024    | -                        | 0.10                      | 1.37                      | -                          |
| 25                                                                                                                              | 25-04-2024    | -                        | -                         | 1.65                      | -                          |
| 26                                                                                                                              | 26-04-2024    | 0.18                     | -                         | 2.21                      | -                          |
| 27                                                                                                                              | 27-04-2024    | -                        | -                         | 1.34                      | -                          |
| 28                                                                                                                              | 28-04-2024    | -                        | -                         | -                         | -                          |
| 29                                                                                                                              | 29-04-2024    | -                        | -                         | -                         | -                          |
| 30                                                                                                                              | 30-04-2024    | -                        | -                         | 1.08                      | -                          |
| Total                                                                                                                           |               | 0.42                     | 0.18                      | 17.42                     | -                          |
| Grand Total                                                                                                                     |               | 18.02                    |                           |                           |                            |

-: No transaction took place

**Note:** Cross Border Transactions of Electricity of 18.02 MU (i.e. 0.42 MU bought by Nepal, 0.18 MU sold by Nepal, 17.42 MU bought by Bhutan) happened during April, 2024 in IEX, which is included under RTM Volume of April, 2024 in IEX. No Cross Border Import Transactions of Electricity happened with **Bhutan** for the month of April, 2024 in IEX under RTM.

**Analysis for change in trend of Final Scheduled Volume under DAM on 1<sup>st</sup> Sunday & 4<sup>th</sup> Monday of April, 2024 (i.e. 7<sup>th</sup> & 29<sup>th</sup> April, 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 April, 2024, it is observed that first Sunday (07<sup>th</sup> April, 2024), FSV showed increasing trend in comparison to first Saturday (06<sup>th</sup> April, 2024), on fourth Monday (29<sup>th</sup> April, 2024), FSV showed decreasing trend in comparison to fourth Sunday (28<sup>th</sup> April, 2024).

- (i) On first Sunday (07<sup>th</sup> April, 2024), although there was decrease in purchase on power exchange by some of the States in comparison to first Saturday (06<sup>th</sup> April, 2024) by **20.13 MU** [i.e. West Bengal (6.94 MU), Gujarat (5.23 MU), Karnataka (3.52 MU), Himachal Pradesh (2.96 MU) and Uttarakhand (1.47 MU), etc.], there was also increase in purchase on power exchange by some of the States by **26.89 MU** [i.e. Telangana (7.15 MU), J&K (6.13 MU), Maharashtra (4.51 MU), Odisha (2.91 MU) and Tamilnadu (2.17) etc.]. This resulted in an overall increase in FSV by **6.76 MU** on Sunday (07<sup>th</sup> April, 2024) as compared to Saturday (06<sup>th</sup> April, 2024).
- (ii) On fourth Monday (29<sup>th</sup> April, 2024), although there was increase in purchase on power exchange by some of the States in comparison to fourth Sunday (28<sup>th</sup> April, 2024) by **10.55 MU** [i.e. Gujarat (3.29 MU), Maharashtra (2.80 MU), Rajasthan (1.98 MU), Karnataka (1.19 MU) and Himachal Pradesh (0.90 MU), etc.], there was also decrease in purchase on power exchange by some of the States by **27.60 MU** [i.e. Telangana (7.62 MU), West Bengal (4.05 MU), Bihar (3.99 MU), Odisha (2.92 MU) and Tamil Nadu (1.82 MU), etc.]. This resulted in an overall decrease in FSV by **17.05 MU** on Monday (29<sup>th</sup> April, 2024) as compared to Sunday (28<sup>th</sup> April, 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).