



अगस्त, 2020 मासिक मार्केट मॉनिटरिंग रिपोर्ट

Monthly Market Monitoring Report

August, 2020



भारत सरकार/ Government of India

विद्युत मंत्रालय/ Ministry of Power

केन्द्रीय विद्युत प्राधिकरण/ Central Electricity Authority

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दिनांक/ Date: 23.09.2020

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REPORT FOR MONTH: AUGUST, 2020

OVERVIEW OF ELECTRICITY TRANSACTIONS ON POWER EXCHANGES IN INDIA

1. DAY AHEAD MARKET (DAM)

- 1.1. The total volume of electricity transacted on both the power exchanges, viz., IEX and PXIL in the Day Ahead Market (DAM) in the month of August, 2020 is **4,498.46 MU**. The total energy supplied in the country during the month of August, 2020 is **109,657 MU (Provisional)**. Thus, the volume of electricity transacted on the power exchanges in DAM was **4.10 %** of the total energy supplied in the country. The total volume of electricity transacted in DAM during July, 2020 was **4,486.71 MU** which was **4.00 %** of the total energy supplied [**112,147 MU**] in the country during July, 2020. Similarly, the total volume of electricity transacted in DAM during August, 2019 was **4,675.23 MU** which was 4.19 % of the total energy supplied [**111,521 MU**] in the country during August, 2019.
- 1.2. The volume of electricity transacted on IEX and PXIL during August, 2020 are 4,484.36 MU and 14.10 MU, respectively, which means that the total volume transacted on IEX is 99.68 % of the total volume on power exchanges. The volume of electricity transacted on IEX during July, 2020 is 4,486.71 MU, whereas no transaction of Electricity happened on PXIL during the month of July, 2020. Also, the total volume of electricity transacted during August, 2019 on IEX and PXIL was **4,674.88 MU** and **0.35 MU**, respectively, which means that the total volume transacted on IEX was 99.99 % of the total volume on the power exchanges.
- 1.3. The Average Market Clearing Price (MCP) on IEX during the month of August, 2020 is **Rs 2.43/kWh**, which shows a decline of **1.62 %** and **26.81 %** when compared with average MCP's for the month of July, 2020 and August, 2019, which were **Rs 2.47/kWh** and **Rs 3.32/kWh**, respectively. On PXIL, the average MCP during the month of August, 2020 is **Rs 2.64/kWh**, which shows a decline of 14.84 % when compared with average MCP's for the month of August, 2019, which was Rs 3.10/kWh. Whereas no transaction of Electricity happened in PXIL during the month of July, 2020.

2. SUMMARY OF THE MARKET CLEARING PRICE, AREA CLEARING PRICE AND FINAL SCHEDULED VOLUME IN THE POWER EXCHANGES

- 2.1. A comparison of the Minimum, Maximum and Average of Daily MCP during the month of August, 2020 with that of July, 2020 and August, 2019 is given in Table- 1A & 1B:

(a) August, 2020 vis- a -vis July, 2020

Daily MCP (Rs/kWh)	IEX			PXIL		
	August, 2020	July, 2020	% Change	August, 2020	July, 2020	% Change
Minimum	1.64	1.91	-14.14	2.47	-	NA
Maximum	2.99	2.90	3.10	2.81	-	NA
Average	2.43	2.47	-1.62	2.64	-	NA

- : No transaction happened

NA: Not Applicable

Table: 1A**(b) August, 2020 vis- a -vis August, 2019**

Daily MCP (Rs/kWh)	IEX			PXIL		
	August, 2020	August, 2019	% Change	August, 2020	August, 2019	% Change
Minimum	1.64	2.43	-32.51	2.47	3.10	-20.32
Maximum	2.99	4.07	-26.54	2.81	3.10	-9.35
Average	2.43	3.32	-26.81	2.64	3.10	-14.84

- : No transaction happened

NA: Not Applicable

Table: 1B

- 2.2. The maximum Area Clearing Price (ACP) of **Rs 4.93/kWh** in IEX was observed in all 13 regions during the time block **21:30-21:45 Hrs** on 31st August, 2020. As there was no congestion in transmission system, the MCP for this time-block was also **Rs 4.93/kWh**. However, the Daily MCP in IEX on pan India basis on 31st August, 2020 was **Rs 2.90/kWh**. Whereas, in PXIL, the transaction of electricity happened for 7 days only during August, 2020 (25th to 31st August, 2020) and during that period, the maximum ACP of **Rs 4.18/kWh** was observed in all 13 regions during the time blocks from **19:15-19:30 Hrs** on 31st August, 2020. As no congestion was there in transmission system, the MCP for above time blocks was also **Rs 4.18/kWh**. However, the Daily MCP in PXIL on 31st August, 2020 was **Rs 2.81/kWh**.
- 2.3. The minimum ACP of **Rs 0.68/kWh** in IEX was observed in all 13 regions during the time block **17:15-17:30 Hrs** on 15th August, 2020. As there was no congestion in transmission system, the MCP for this time-block was also **Rs 0.68/kWh**. However, the Daily MCP in IEX on pan India basis on 15th August, 2020 was **Rs 1.64/kWh**. Whereas, in PXIL, the minimum ACP of **Rs 2.00/kWh** was observed in all 13 regions on 29th August, 2020 for time periods from 02:30 to 005:00 and from 13:00 to 14:00. As no congestion was there in transmission system, the MCP for the above time blocks was also **Rs 2.00/kWh**. However, the Daily MCP in PXIL on 29th August, 2020 was **Rs 2.51/kWh**.

- 2.4. A comparison of the Minimum and Maximum Area Clearing Price (ACP) during the months of August, 2020 with that of July, 2020 and August, 2019 is given in Table- 2A & 2B:

(a) August, 2020 vis- a -vis July, 2020

ACP (Rs/kWh)	IEX			PXIL		
	August, 2020	July, 2020	% Change	August, 2020	July, 2020	% Change
Minimum	0.68	0.88	-22.73	2.00	-	NA
Maximum	4.93	5.17	-4.64	4.18	-	NA

- : No transaction happened

NA: Not Applicable

Table: 2A

(b) August, 2020 vis- a- vis August, 2019

ACP (Rs/kWh)	IEX			PXIL		
	August, 2020	August, 2019	% Change	August, 2020	August, 2019	% Change
Minimum	0.68	1.00	-32.00	2.00	3.10	-35.48
Maximum	4.93	8.95	-44.92	4.18	3.10	34.84

Table: 2B

- 2.5. A comparison of the Minimum, Maximum and Average of Final Scheduled Volume (FSV) of electricity transactions happened on IEX and PXIL for a day during the months of August, 2020 with that of July, 2020 and August, 2019 is given in Table- 3A & 3B:

(a) August, 2020 vis- a- vis July, 2020

Final Scheduled Volume (MU)	IEX			PXIL		
	August, 2020	July, 2020	% Change	August, 2020	July, 2020	% Change
Minimum	103.09	114.05	-9.61	0.87	-	NA
Maximum	187.85	181.17	3.69	3.83	-	NA
Average	144.66	144.73	-0.05	2.01	-	NA

- : No transaction happened

NA: Not Applicable

Table: 3A

(b) August, 2020 vis- a- vis August, 2019

Final Scheduled Volume (MU)	IEX			PXIL		
	August, 2020	August, 2019	% Change	August, 2020	August, 2019	% Change
Minimum	103.09	116.16	-11.25	0.87	0.08	987.50
Maximum	187.85	190.02	-1.14	3.83	0.09	4,155.55
Average	144.66	150.80	-4.07	2.01	0.09	2,133.33

Table: 3B

- 2.6. The total volume of electricity transacted in DAM on both the power exchanges during the period **April, 2020 to August, 2020** is **22,462.55 MU**. The same was 21,493.53 MU during the period April, 2019 to August, 2019, which shows an **increase of 4.51 %**.

3. TERM AHEAD MARKET (TAM)

- 3.1. The total volume of electricity transacted on both the power exchanges in Term Ahead Market in August, 2020 was **472.31 MU**, out of which, **151.09 MU** (31.99 %) was transacted on IEX and **321.22 MU** (68.01%) was transacted on PXIL.
- 3.2. The total volume of electricity transacted on both the power exchanges in Term Ahead Market in July, 2020 was **89.04 MU**, out of which, **60.75 MU** (68.23 %) was transacted on IEX and **28.29 MU** (31.77 %) was transacted on PXIL.
- 3.3. Similarly, total volume of electricity transacted during August, 2019 in Term Ahead Market on both the power exchanges was **1,363.58 MU**, out of which, **808.07 MU** (59.26 %) was transacted on IEX and **555.51 MU** (40.74 %) was transacted on PXIL.
- 3.4. With respect to the total energy supplied during the month of August, 2020 in the country, the volume of electricity traded on the power exchanges in TAM represents **0.43 %** of the total energy supplied. The same was **0.08 %** in July, 2020 and **1.22 %** in August, 2019.
- 3.5. The total volume of electricity transacted in TAM on both the power exchanges during the period **April, 2020 to August, 2020** is **1,969.21 MU**, which shows decrease of **46.72 %** as compared to **3,696 MU** during the period April, 2019 to August, 2019.
- 3.6. **Real time Curtailment:** In Term Ahead Market (TAM), there was real time curtailment of **4.16 MU** in IEX in the month of August, 2020 under “daily/ Any Day” Contract.
- 3.7. **The comparison of total volume of electricity transacted on both the power exchanges in Term Ahead Market (TAM) during August, 2020 with July, 2020 and August, 2019 is given in Table - 4A & 4B:**

(a) August, 2020 vis- a- vis July, 2020

Contract Type	IEX			PXIL		
	August, 2020	July, 2020	% Change	August, 2020	July, 2020	% Change
Intra Day (MU)	1.87	6.54	-71.41	18.77	19.81	-5.25
Day Ahead Contingency (MU)	2.46	15.57	-84.20	-	-	NA
Daily/ Any Day (MU)	146.76	38.64	279.81	302.45	8.48	3466.63
Weekly (MU)	-	-	NA	-	-	NA

- : No transaction happened

NA: Not Applicable

Table: 4A

(a) August, 2020 vis- a- vis August, 2019

Contract Type	IEX			PXIL		
	August, 2020	August, 2019	% Change	August, 2020	August, 2019	% Change
Intra Day (MU)	1.87	99.12	-98.11	18.77	223.11	-91.59
Day Ahead Contingency (MU)	2.46	64.89	-96.21	-	-	-
Daily/ Any Day (MU)	146.76	270.96	-45.84	302.45	105.60	186.41
Weekly (MU)	-	373.10	NA	-	226.80	NA

- : No transaction happened

NA: Not Applicable

Table: 4B**4. REAL TIME MARKET (RTM)**

The transaction of Electricity in the Real Time Market was started from 1st June, 2020 with the approval of the CERC in both the power exchanges - IEX and PXIL. The Final Scheduled Volume (FSV), Daily Market Clearing Prices (MCP), Area Clearing Prices (ACP), Real Time Curtailment and details of Transmission Congestion in Real Time Market during the month of August, 2020 as compared with July, 2020 are as given in Table 5A, 5B & 5C:

(i) Final Scheduled Volume:

Final Scheduled Volume (MU)	IEX			PXIL		
	August, 2020	July, 2020	% Change	August, 2020	July, 2020	% Change
Total	860.57	784.96	9.63	-	0.43	NA
Minimum	15.47	14.37	7.65	-	0.43	NA
Maximum	53.09	42.69	24.36	-	0.43	NA
Average	27.76	25.32	9.64	-	0.43	NA

- : No transaction happened

NA: Not Applicable

Table-5A**(ii) Daily Market Clearing Price (MCP):**

Daily MCP (Rs/kWh)	IEX			PXIL		
	August, 2020	July, 2020	% Change	August, 2020	July, 2020	% Change
Minimum	1.66	1.55	7.10	-	2.61	NA
Maximum	2.98	3.39	-12.09	-	2.61	NA
Average	2.27	2.49	-8.84	-	2.61	NA

- : No transaction happened

NA: Not Applicable

Table-5B

(iii) Area Clearing Price (ACP):

ACP (Rs/kWh)	IEX			PXIL		
	August, 2020	July, 2020	% Change	August, 2020	July, 2020	% Change
Minimum	0.10	0.19	-47.37	-	2.60	NA
Maximum	5.21	5.65	-7.79	-	2.61	NA

- : No transaction happened

NA: Not Applicable

Table -5C**5. GREEN TERM AHEAD MARKET (GTAM):**

CERC vide its order dated 17th August, 2020 accorded its approval for introduction of Green Term Ahead Market (GTAM) contracts on Indian Energy Exchange(IEX) and the transaction of electricity in Green Term Ahead Market was started in IEX w.e.f. 21st August, 2020 onwards. The total volume of electricity transacted in Solar Energy Segment in GTAM in Day Ahead Contingency contract during August, 2020 is 2.93 MU with an Average MCP of Rs 3.07 /kWh and in Intraday contract, the same is 0.0021 MU with an Average MCP of Rs 3.00 /kWh. In Non- Solar Energy Segment in GTAM, no transaction of electricity happened in August, 2020.

(i) Final Scheduled Volume:

Solar Energy Contract	Period	Final Scheduled Volume (MU)			
		Total	Minimum	Maximum	Average
Day Ahead Contingency	August, 2020	2.93	0.01	0.35	0.27
Intraday	August, 2020	0.0021	0.0021	0.0021	0.0021

Table-6A**(ii) Daily Market Clearing Price (MCP):**

Solar Energy Contract	Period	Prices(Rs./kWh)		
		Minimum	Maximum	Average
Day Ahead Contingency	August , 2020	3.00	3.24	3.07
Intraday	August , 2020	3.00	3.00	3.00

Table-6B**6. ANALYSIS OF MOVEMENT OF PRICES OBSERVED IN DAM DURING AUGUST, 2020**

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 August, 2020 month. The observations made are as under:

- 6.1. In order to find out the determinants which are responsible for the Daily MCP, a regression analysis has been carried out where the Daily MCP is the dependent variable and the independent variables are peak demand during the month of August, 2020 in the country, total purchase bid, total sell bid, coal generation, hydro generation, wind generation and solar generation.
- 6.2. A double log function was used so that elasticity of Daily MCP could be read off from the coefficients of independent variables. The regression analysis revealed that the significant variables were the total purchase bid, total sell bid and solar generation, whereas all the other variables were found to be insignificant. Further, the regression analysis revealed that the elasticity of the Daily MCP with respect to total purchase bid was 0.56. In effect, the regression reveals that the most important variable which determines daily market clearing price is the total purchase bid in the month of August, 2020.
- 6.3. The same relationship is visible from the analysis carried out from the plot in **Figure 1**.

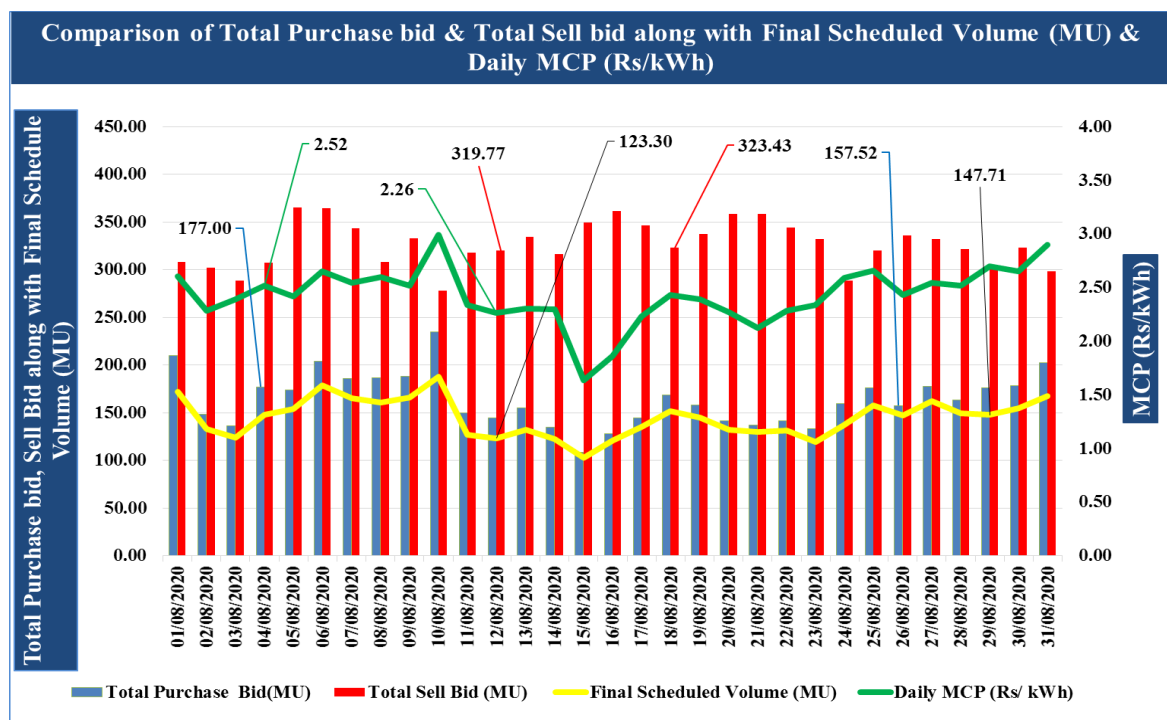


Figure -1

- 6.4. Invariably, the Final Scheduled Volume (MU) and the Daily MCP (Rs/kWh) showed decreasing trend on Sundays as the demand of electricity in the country is less compared to other days of week [Figure 1]. However, in the month of August, 2020, it is observed that on first Monday (i.e. 3rd August, 2020), FSV showed decreasing trend in comparison to Sunday (i.e. 2nd August, 2020). Whereas, on second, third and fifth Sundays (i.e. 9th, 16th and 30th August, 2020) FSV showed increasing trend in comparison to Saturdays (i.e. 8th, 15th and 29th August, 2020). The detailed analysis on this is given at **Appendix-I**.

6.5. A comparison of maximum, minimum, daily, non-peak time, peak time MCP is shown in **Figure -2**. The same are also tabulated in **Annexure III**.

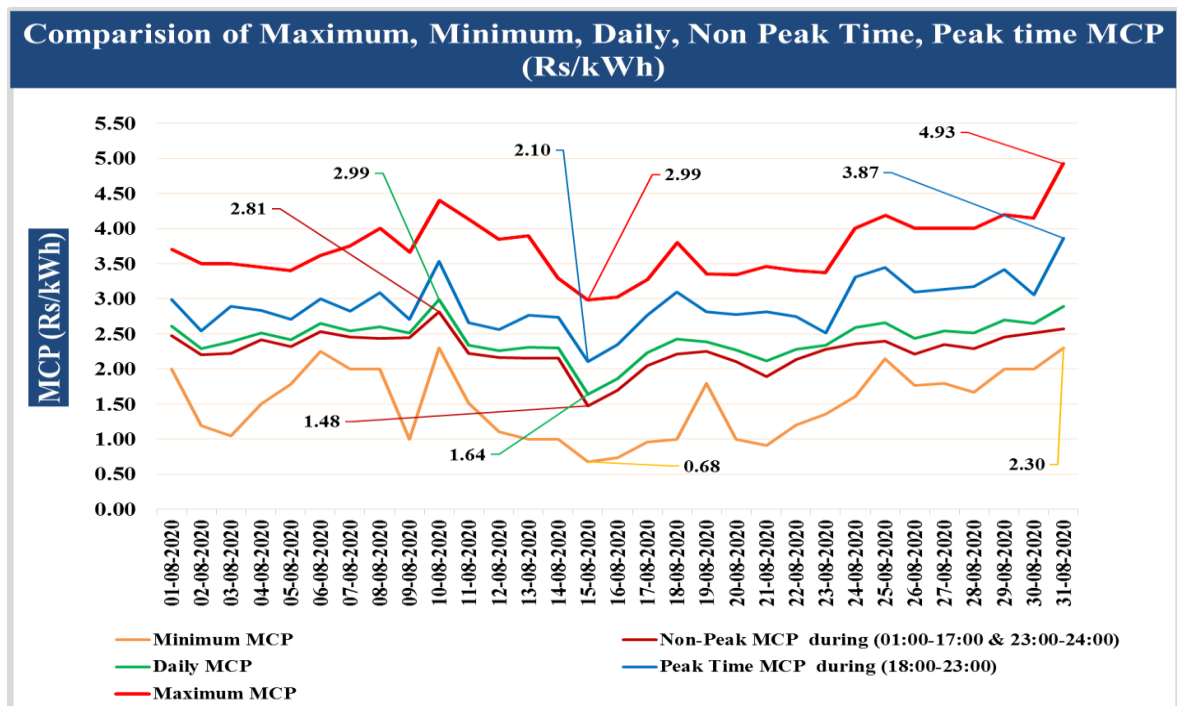


Figure -2

- 6.6. The Purchase Bids and the MCP discovered in each of the 15-minute time block during the month almost followed the same trend [**Annexure IV**]. This is also corroborated with the outcome of regression analysis mentioned in at para 6.1 and 6.2 above.
- 6.7. On **21 days** during the month, the maximum MCP occurred during the **time period 21:15-22:00** [**Annexure V**].
- 6.8. On **25 days** during the month, the maximum FSV occurred during the **time period 21:00-22:15** [**Annexure V**].
- 6.9. On **10 days** during the month, the minimum FSV occurred during the **time period 17:00-18:15** [**Annexure V**].
- 6.10. On **15 days** during the month, the minimum MCP occurred during the **time period 05:00-05:30** [**Annexure V**].
- 6.11. The maximum demand met during the month of August, 2020 in the country occurred on **8th August, 2020 at 167.50 GW**, which is 1.79 % less than the maximum demand occurred during **July, 2020 [i.e. 170.55 GW on 2nd July, 2020]** and is 5.79 % less than the maximum demand occurred during August, 2019 i.e. [**177.80 GW on 29th August, 2019**].
- 6.12. One nation One Price was observed for **all 31 days** in IEX, as there was no congestion in transmission system in IEX in August, 2020. In PXIL also, there was no congestion in transmission system, so one nation one price was observed on all 7 days during which

transaction happened (25th to 31st August, 2020). In the month of July, 2020 also, one nation one Price was observed for **all 31 days** in IEX, as there was no congestion in transmission system in IEX. In PXIL, there was no transaction of electricity happened during July, 2020. Similarly, in IEX, in the month of August, 2019, there was no congestion in transmission system, hence, one nation one price was observed for all 31 days. In PXIL also, there was no congestion in transmission system, so one nation one price was observed on all 4 days during which transaction happened (20th-21st and 24th-25th August, 2019).

6.13. There was no real time curtailment in IEX & PXIL during August, 2020. Further, there was no real time curtailment in IEX in July, 2020 and no transaction happened in PXIL. In August, 2019, real time curtailment of **4.42 MU** occurred in IEX and no real time curtailment happened in PXIL.

6.14. The **top 10 sellers** on the power exchanges in DAM in the month of August, 2020 are **Teesta -3, Himachal Pradesh, Odisha, Jaypee Nigrie, UT of J&K and Ladakh, Sembcorp Gayatri, Raipur Energen, Karnataka, Uttar Pradesh and Essar Power MP Ltd**, which constituted **56.42%** of the market volume. [Annexure VI]

6.15. The **top 10 purchasers** on the power exchanges in DAM in the month of August, 2020 are **Haryana, Maharashtra, Gujarat, Telangana, Tamil Nadu, Andhra Pradesh, Uttar Pradesh, Uttarakhand, Delhi and Bihar**, which constituted **83.68%** of the market volume. [Annexure VI]

7. ANALYSIS OF MOVEMENT OF PRICES OBSERVED IN REAL TIME MARKET (RTM) TRANSACTIONS IN AUGUST, 2020

7.1. Similar to the regression analysis of Day Ahead Market, regression analysis for Real Time Market was also done. The regression analysis revealed that the significant variables were the total purchase bid and total sell bid, whereas all the other variables were found to be insignificant. Further, the regression analysis revealed that the elasticity of the Daily MCP with respect to total purchase bid was 0.29. In effect, the regression reveals that the most important variable which determines daily market clearing price is the total purchase bid in the month of August, 2020

7.2. The Purchase Bids and the MCP discovered in each of the 15-minute time block during the month almost followed the same trend [Annexure VIII]. This is also corroborated with the outcome of regression analysis mentioned in at para 7.1 above.

7.3. The Total Purchase Bid, Total Sell Bid, Daily MCP and FSV are shown in Figure-3 below:

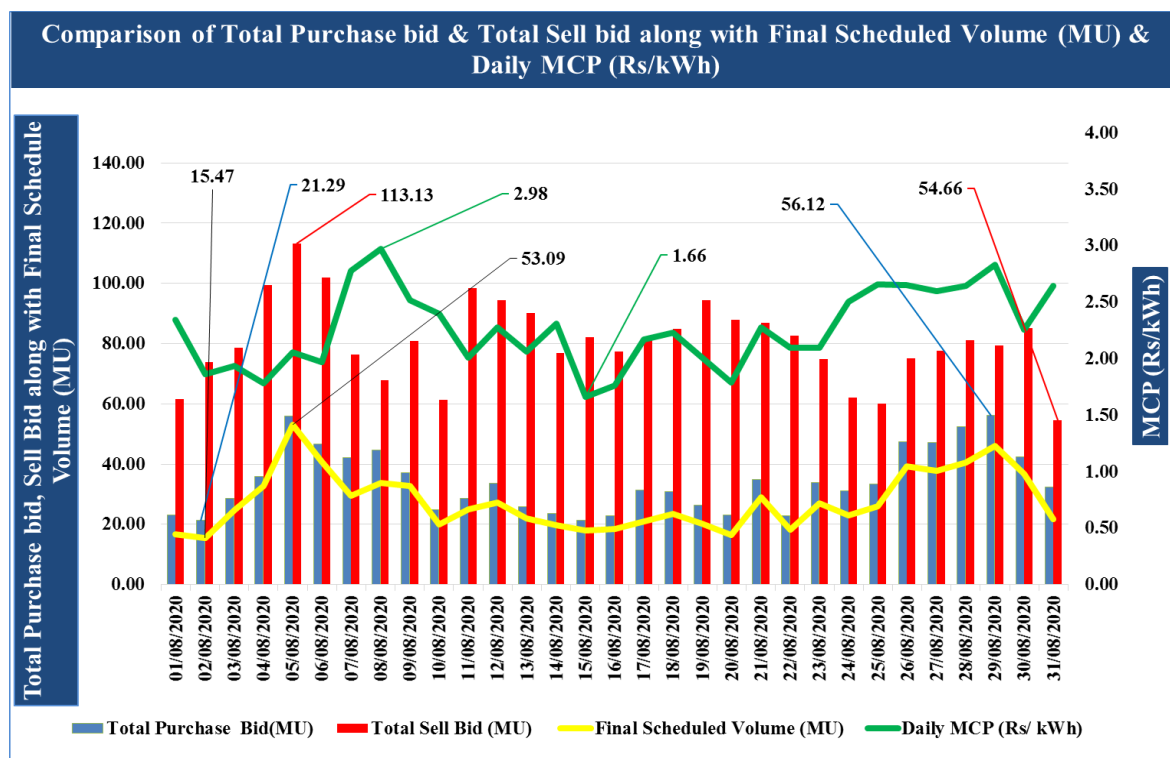


Figure-3

7.4. A comparison of maximum, minimum, daily, non-peak time, peak time MCP is shown in Figure-4. The same are also tabulated in Annexure VII.

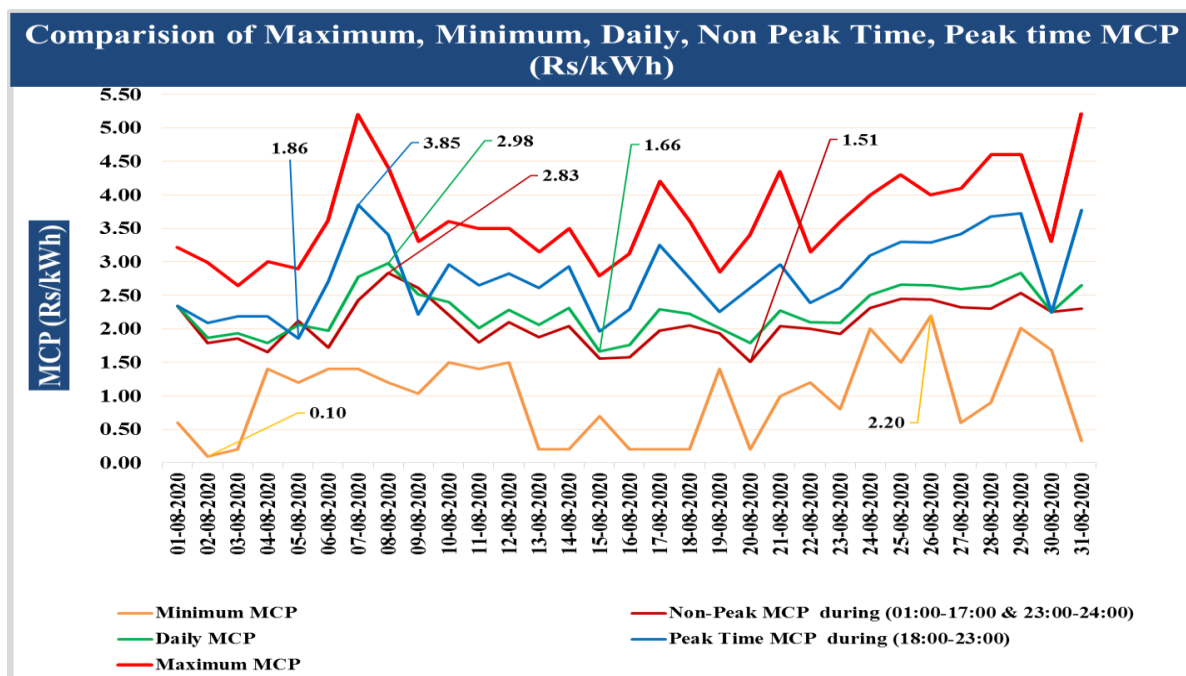


Figure-4

7.5. On 14 days during the month, the maximum MCP occurred during the time period 19:15-20:30 and also on 14 days during the month, the maximum MCP occurred during the time period 20:45-22:15. [Annexure IX].

- 7.6. There was **no real time curtailment** in IEX in Real Time Market during August, 2020, whereas, no transaction of electricity happened in PXIL during August, 2020. In July, 2020 also, there was no real time curtailment in IEX and PXIL respectively in Real Time Market.
- 7.7. In the month of August, 2020, there was **no congestion** in transmission system in IEX in Real Time Market. Hence, one nation one price was observed for **31 days** in IEX. Whereas, in PXIL, no transaction of electricity happened in August, 2020 in Real Time Market.
- 7.8. The **top 10 sellers** on the power exchanges in RTM in the month of August, 2020 are **UT of J&K and Ladakh, Karnataka, Madhya Pradesh, Odisha, Uttar Pradesh, NLC, Sembcorp Gayatri, Chhattisgarh, Delhi and NLC TPS-II Expn**, which constituted **66.75%** of the market volume. [Annexure X]
- 7.9. The **top 10 purchasers** on the power exchanges in RTM in the month of August, 2020 are **Telangana, West Bengal, Haryana, Rajasthan, Maharashtra, Andhra Pradesh, Delhi, Uttar Pradesh, Assam and Bihar**, which constituted **89.36 %** of the market volume. [Annexure X]

-
- Source DAM, TAM and RTM data: IEX and PXIL
 - 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, Average MCP and Real-Time Curtailment in Day Ahead Market (DAM) for the months of April, 2020 to August, 2020 of IEX and PXIL

Quarter	Months	Final Scheduled Volume (MU)		Market Clearing Price (Rs/kWh)		Real Time Curtailment (MU)	
		IEX	PXIL	IEX	PXIL	IEX	PXIL
Quarter -I	April, 2020	3,692.04	-	2.42	NA	0	NA
	May, 2020	5,573.73	22.24	2.57	2.58	0	0
	June, 2020	4,174.34	15.03	2.35	2.56	0	0
Total Quarter -I	April - June, 2020	13,440.11	37.27			0	0
Quarter-II	July, 2020	4486.71	-	2.47	NA	0	NA
	August, 2020	4,484.36	14.10	2.43	2.64	0	0
Total April - August, 2020		22,411.18	51.37			0	0

- : No Transaction happened

NA: Not Applicable

Annexure-II**Final Scheduled Volume in Term Ahead Market (TAM) for the months of April, 2020 to August, 2020 of IEX and PXIL**

Quarter	Months	Final Scheduled Volume (MU)		
		IEX	PXIL	Total
Quarter -I	April, 2020	395.88	191.30	587.18
	May, 2020	387.42	284.38	671.80
	June, 2020	74.00	74.88	148.88
Total Quarter -I	April - June, 2020	857.30	550.56	1,407.86
Quarter-II	July, 2020	60.75	28.29	89.04
	August, 2020	151.09	321.22	472.31
Total April - August, 2020		1,069.14	900.07	1,969.21

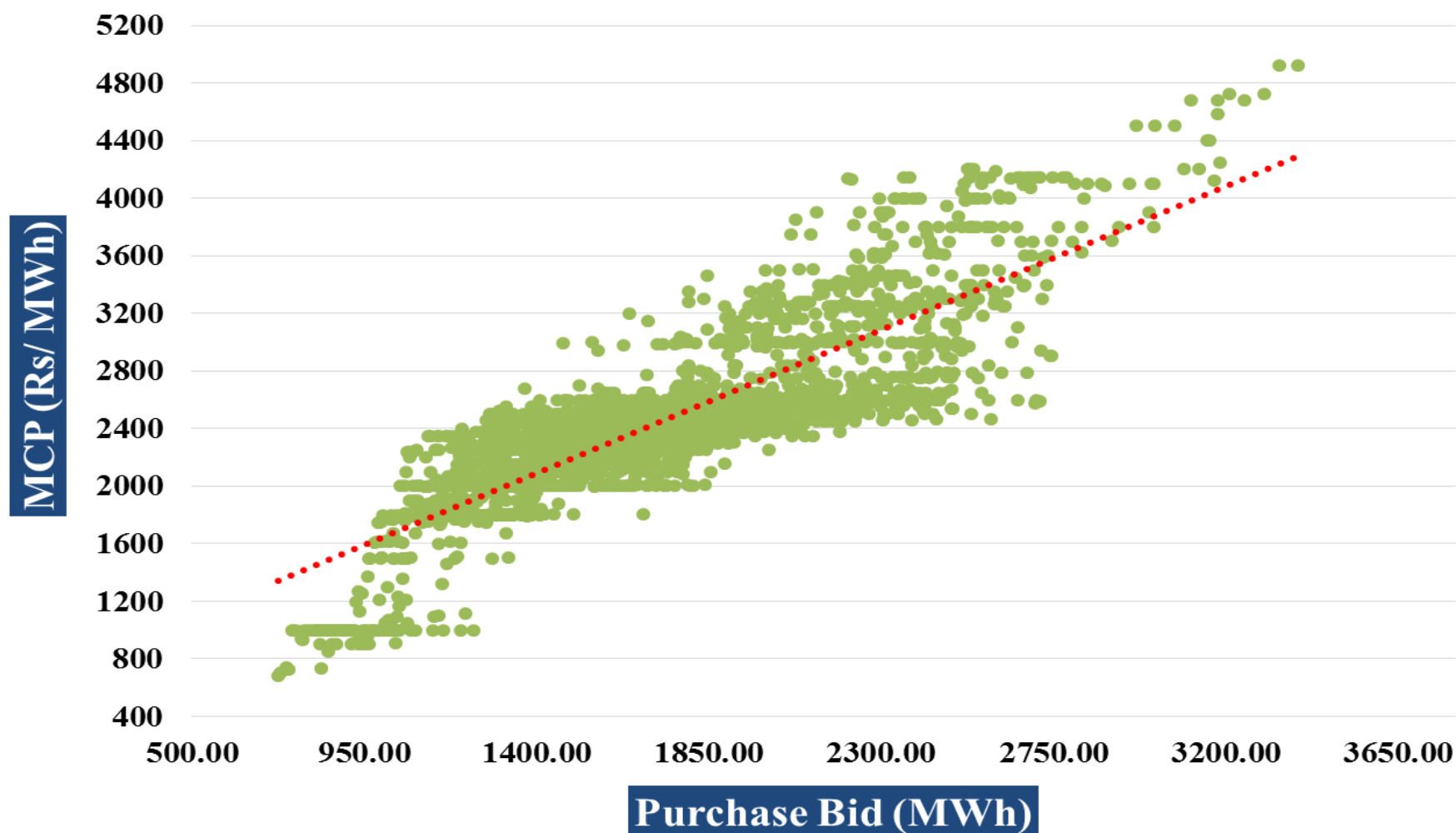
Annexure-III**Peak Time MCP, Non-Peak MCP, Maximum MCP, Minimum MCP, Average MCP and Final Scheduled Volume (MU) in DAM**

Date	MCP during (01:00-06:00, 23:00-24:00)	MCP during (07:00-10:00)	MCP during (11:00-17:00)	Peak Time MCP during (18:00-23:00)	Non-Peak MCP during (01:00-17:00 & 23:00-24:00)	Maximum MCP	Minimum MCP	Average MCP	Final Scheduled Volume (MU)
01/08/2020	2.38	2.57	2.53	2.99	2.48	3.70	2.00	2.61	171.65
02/08/2020	2.18	2.50	2.05	2.55	2.20	3.50	1.20	2.29	133.11
03/08/2020	1.90	2.44	2.43	2.89	2.22	3.50	1.05	2.39	123.61
04/08/2020	2.32	2.35	2.54	2.83	2.41	3.45	1.50	2.52	148.00
05/08/2020	2.13	2.39	2.47	2.71	2.32	3.40	1.79	2.42	154.16
06/08/2020	2.53	2.51	2.56	3.00	2.53	3.62	2.25	2.65	178.42
07/08/2020	2.38	2.46	2.52	2.82	2.45	3.75	2.00	2.54	164.85
08/08/2020	2.46	2.53	2.37	3.08	2.44	4.00	2.00	2.60	160.71
09/08/2020	2.63	2.45	2.28	2.71	2.45	3.67	1.00	2.52	165.69
10/08/2020	2.89	2.76	2.76	3.53	2.81	4.40	2.30	2.99	187.85
11/08/2020	2.07	2.35	2.31	2.66	2.23	4.14	1.51	2.34	127.01
12/08/2020	2.22	2.03	2.18	2.56	2.16	3.85	1.10	2.26	123.30
13/08/2020	2.08	2.17	2.22	2.77	2.15	3.90	1.00	2.31	132.07
14/08/2020	1.95	2.30	2.28	2.74	2.15	3.30	1.00	2.30	122.62
15/08/2020	2.09	1.26	1.00	2.10	1.48	2.99	0.68	1.64	103.09
16/08/2020	1.94	1.03	1.84	2.35	1.70	3.02	0.74	1.86	121.14
17/08/2020	1.70	2.23	2.30	2.76	2.05	3.28	0.96	2.23	135.02
18/08/2020	2.11	2.40	2.20	3.09	2.21	3.80	1.00	2.43	151.73
19/08/2020	2.18	2.20	2.35	2.81	2.25	3.35	1.80	2.39	145.27
20/08/2020	2.11	2.08	2.11	2.77	2.10	3.35	1.00	2.27	131.85
21/08/2020	1.51	2.25	2.05	2.82	1.89	3.46	0.91	2.12	130.24
22/08/2020	1.89	2.45	2.20	2.75	2.13	3.40	1.21	2.28	131.03
23/08/2020	2.24	2.38	2.26	2.51	2.28	3.37	1.36	2.34	119.19
24/08/2020	2.24	2.52	2.38	3.31	2.35	4.00	1.62	2.59	137.42
25/08/2020	2.34	2.49	2.40	3.44	2.40	4.19	2.15	2.66	157.33
26/08/2020	2.06	2.49	2.21	3.10	2.21	4.00	1.77	2.43	147.25
27/08/2020	2.21	2.50	2.40	3.14	2.35	4.00	1.80	2.55	162.15
28/08/2020	2.14	2.44	2.37	3.17	2.30	4.00	1.67	2.52	149.10
29/08/2020	2.44	2.51	2.45	3.42	2.46	4.20	2.00	2.70	147.71
30/08/2020	2.60	2.53	2.41	3.06	2.51	4.15	2.00	2.65	154.54
31/08/2020	2.63	2.60	2.50	3.87	2.57	4.93	2.30	2.90	167.23
Maximum	2.89	2.76	2.76	3.87	2.81	4.93	2.30	2.99	187.85
Minimum	1.51	1.03	1.00	2.10	1.48	2.99	0.68	1.64	103.09
Average	2.21	2.33	2.29	2.91	2.27	3.73	1.50	2.43	144.66

MCP: Market Clearing Price (Rs/kWh)

FSV: Final Scheduled Volume (MU)

Comparison of MCP w.r.t. Purchase Bid for 2,976 Time Blocks during the month of August, 2020



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

Maximum Final Schedule Volume (FSV), Minimum FSV, Maximum Market Clearing Price (MCP) and Minimum MCP in DAM

Date	Max. FSV (MU)		Max. MCP (Rs/kWh)		Min FSV (MU)		Min. MCP (Rs/kWh)	
	Time Block	Value	Time Block	Value	Time Block	Value	Time Block	Value
01/08/2020	07:45 - 08:00	2.26	21:30 - 21:45	3.70	03:15 - 03:30	1.38	05:00 - 05:15	2.00
02/08/2020	21:30 - 21:45	2.00	21:30 - 21:45	3.50	17:45 - 18:00	0.93	17:45 - 18:00	1.20
03/08/2020	21:45 - 22:00	1.92	21:45 - 22:00	3.50	04:15 - 04:30	1.00	04:15 - 04:30	1.05
04/08/2020	21:45 - 22:00	2.42	21:30 - 21:45	3.45	18:00 - 18:15	1.16	05:00 - 05:15	1.50
05/08/2020	21:45 - 22:00	2.41	21:45 - 22:00	3.40	03:45 - 04:00	1.16	05:00 - 05:15	1.79
06/08/2020	16:00 - 16:15	2.18	21:30 - 21:45	3.62	03:45 - 04:00	1.44	05:00 - 05:15	2.25
07/08/2020	21:45 - 22:00	2.17	21:30 - 21:45	3.75	18:00 - 18:15	1.32	18:00 - 18:15	2.00
08/08/2020	07:30 - 07:45	2.16	21:45 - 22:00	4.00	18:00 - 18:15	1.21	18:00 - 18:15	2.00
09/08/2020	00:00 - 00:15	2.22	21:30 - 21:45	3.67	17:45 - 18:00	1.13	17:45 - 18:00	1.00
10/08/2020	07:15 - 07:30	2.26	21:45 - 22:00	4.40	17:45 - 18:00	1.55	17:45 - 18:00	2.30
11/08/2020	21:45 - 22:00	1.85	21:30 - 21:45	4.14	17:00 - 17:15	1.08	18:00 - 18:15	1.51
12/08/2020	21:45 - 22:00	1.75	21:45 - 22:00	3.85	17:30 - 17:45	0.97	17:45 - 18:00	1.10
13/08/2020	21:45 - 22:00	1.94	21:30 - 21:45	3.90	17:30 - 17:45	1.06	05:00 - 05:15	1.00
14/08/2020	21:30 - 21:45	1.86	19:00 - 19:15	3.30	05:30 - 05:45	0.98	05:00 - 05:15	1.00
15/08/2020	21:45 - 22:00	1.75	21:45 - 22:00	2.99	17:15 - 17:30	0.72	17:15 - 17:30	0.68
16/08/2020	21:45 - 22:00	2.02	21:45 - 22:00	3.02	06:00 - 06:15	0.84	06:00 - 06:15	0.74
17/08/2020	21:45 - 22:00	2.24	21:30 - 21:45	3.28	05:15 - 05:30	0.93	05:15 - 05:30	0.96
18/08/2020	21:45 - 22:00	2.30	20:00 - 20:15	3.80	04:45 - 05:00	1.11	05:00 - 05:15	1.00
19/08/2020	21:45 - 22:00	1.99	19:15 - 19:30	3.35	04:45 - 05:00	1.20	05:00 - 05:15	1.80
20/08/2020	21:15 - 21:30	1.91	21:15 - 21:30	3.35	05:15 - 05:30	1.05	05:15 - 05:30	1.00
21/08/2020	21:45 - 22:00	2.23	21:30 - 21:45	3.46	04:15 - 04:30	0.81	05:00 - 05:15	0.91
22/08/2020	21:00 - 21:15	1.88	19:15 - 19:30	3.40	04:00 - 04:15	0.90	05:00 - 05:15	1.21
23/08/2020	21:45 - 22:00	1.74	19:15 - 19:30	3.37	04:45 - 05:00	0.91	17:45 - 18:00	1.36
24/08/2020	21:45 - 22:00	1.99	20:15 - 20:30	4.00	03:45 - 04:00	0.89	03:45 - 04:00	1.62
25/08/2020	21:45 - 22:00	2.41	20:00 - 20:15	4.19	03:45 - 04:00	1.20	03:45 - 04:00	2.15
26/08/2020	21:15 - 21:30	2.14	21:30 - 21:45	4.00	13:00 - 13:15	1.05	03:45 - 04:00	1.77
27/08/2020	07:15 - 07:30	2.33	19:15 - 19:30	4.00	05:00 - 05:15	1.18	05:00 - 05:15	1.80
28/08/2020	21:45 - 22:00	2.15	19:45 - 20:00	4.00	04:00 - 04:15	0.97	04:00 - 04:15	1.67
29/08/2020	21:45 - 22:00	2.20	20:15 - 20:30	4.20	04:45 - 05:00	1.10	05:00 - 05:15	2.00
30/08/2020	21:45 - 22:00	2.41	21:45 - 22:00	4.15	04:15 - 04:30	1.16	17:15 - 17:30	2.00
31/08/2020	22:00 - 22:15	2.29	21:30 - 21:45	4.93	07:15 - 07:30	1.34	05:00 - 05:15	2.30

MCP: Market Clearing Price (Rs/kWh)

FSV: Final Scheduled Volume (MU)

Annexure-VI**Top Ten Entities (Sellers and Purchasers) in Day Ahead Market (DAM) in the month of August, 2020**

Entity Name	Sell		Entity Name	Purchase	
	(MU)	Percent (%)		(MU)	Percent (%)
Teesta -3	673.63	14.97%	Haryana	737.81	16.40%
Himachal Pradesh	430.32	9.57%	Maharashtra	608.14	13.52%
Odisha	326.75	7.26%	Gujarat	466.11	10.36%
Jaypee Nigrie	214.59	4.77%	Telangana	446.35	9.92%
UT of J&K and Ladakh	210.97	4.69%	Tamil Nadu	353.14	7.85%
Sembcorp Gayatri	198.83	4.42%	Andhra	308.83	6.87%
Raipur Energen	153.47	3.41%	Uttar Pradesh	266.98	5.93%
Karnataka	121.05	2.69%	Uttarakhand	221.16	4.92%
Uttar Pradesh	105.22	2.34%	Delhi	199.12	4.43%
Essar Power MP Ltd	103.17	2.29%	Bihar	156.88	3.49%
Total	2538.01	56.42%	Total	3764.52	83.68%
Total Volume in PXs	4,498.46		Total Volume	4,498.46	

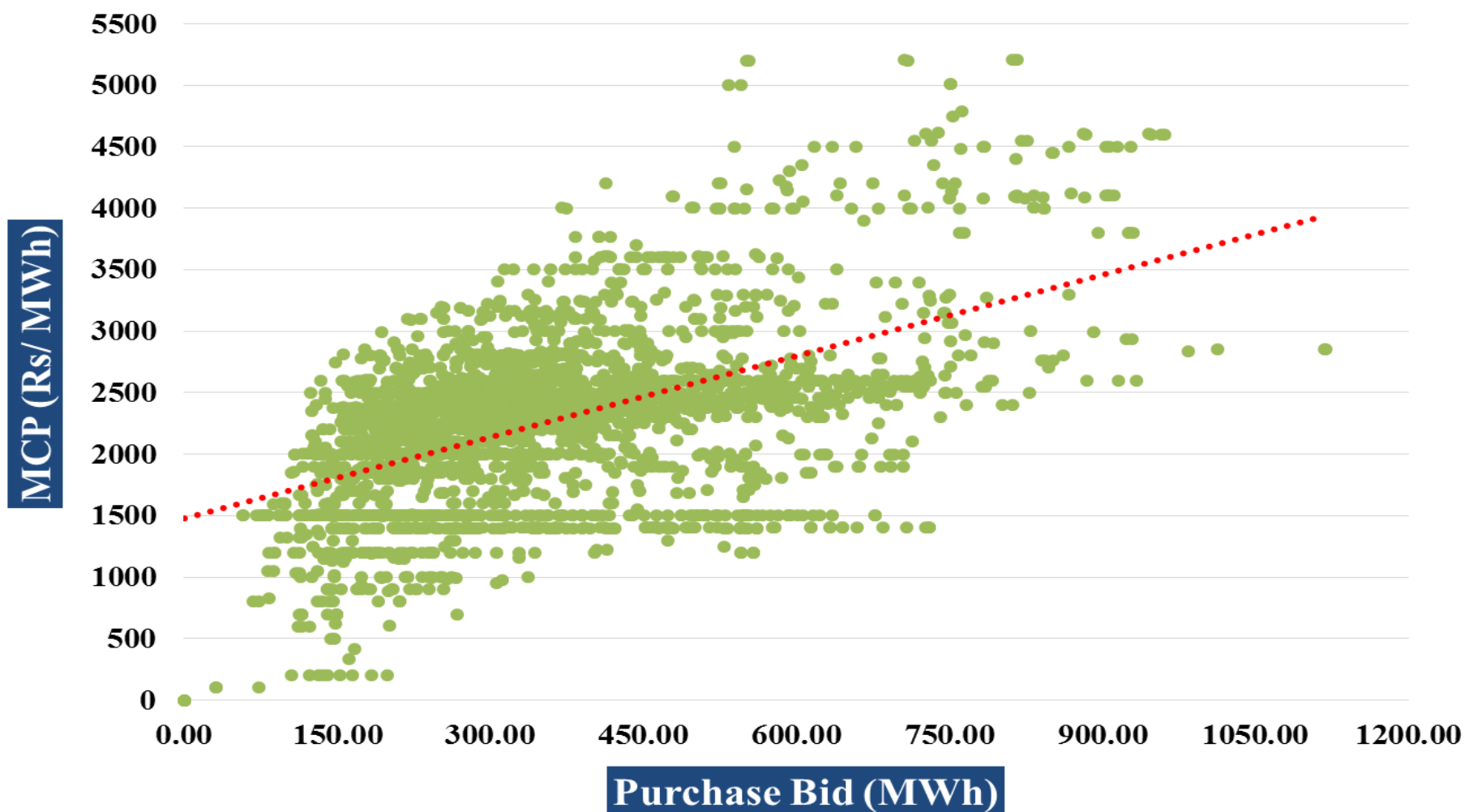
Annexure-VII**Peak Time MCP, Non-Peak MCP, Maximum MCP, Minimum MCP, Average MCP and Final Scheduled Volume (MU) in RTM**

Date	MCP during (01:00-06:00, 23:00-24:00)	MCP during (07:00-10:00)	MCP during (11:00-17:00)	Peak Time MCP during (18:00-23:00)	Non-Peak MCP during (01:00-17:00 & 23:00-24:00)	Maximum MCP	Minimum MCP	Average MCP	Final Scheduled Volume (MU)
01/08/2020	2.52	2.48	2.09	2.34	2.34	3.22	0.60	2.34	16.59
02/08/2020	1.98	1.84	1.58	2.09	1.79	2.99	0.10	1.87	15.47
03/08/2020	1.94	1.65	1.88	2.19	1.85	2.65	0.20	1.94	24.63
04/08/2020	1.80	1.44	1.62	2.19	1.65	3.00	1.40	1.79	32.64
05/08/2020	1.98	2.54	2.03	1.86	2.12	2.90	1.20	2.06	53.09
06/08/2020	1.85	2.03	1.42	2.71	1.72	3.61	1.40	1.97	40.69
07/08/2020	2.35	2.29	2.58	3.85	2.43	5.20	1.40	2.78	29.42
08/08/2020	3.00	2.89	2.62	3.41	2.83	4.40	1.20	2.98	33.70
09/08/2020	2.81	2.77	2.33	2.22	2.61	3.30	1.04	2.52	32.67
10/08/2020	2.06	2.22	2.35	2.96	2.21	3.60	1.50	2.40	20.08
11/08/2020	1.94	1.93	1.58	2.65	1.80	3.50	1.40	2.01	25.10
12/08/2020	2.18	2.03	2.06	2.82	2.10	3.50	1.50	2.28	27.24
13/08/2020	1.88	1.88	1.88	2.61	1.88	3.15	0.20	2.06	22.09
14/08/2020	1.84	1.96	2.29	2.93	2.04	3.50	0.20	2.31	19.81
15/08/2020	2.20	1.26	1.09	1.97	1.56	2.79	0.70	1.66	18.02
16/08/2020	1.53	1.39	1.74	2.30	1.58	3.12	0.20	1.76	18.59
17/08/2020	1.81	1.73	2.28	3.25	1.97	4.20	0.20	2.29	25.09
18/08/2020	2.35	2.00	1.79	2.76	2.05	3.60	0.20	2.23	23.36
19/08/2020	2.23	2.01	1.60	2.25	1.93	2.85	1.40	2.01	20.25
20/08/2020	1.58	1.49	1.46	2.61	1.51	3.40	0.20	1.79	16.56
21/08/2020	1.91	2.31	2.03	2.96	2.05	4.35	1.00	2.27	29.02
22/08/2020	2.19	2.44	1.56	2.39	2.00	3.15	1.20	2.10	18.16
23/08/2020	2.28	1.81	1.63	2.61	1.92	3.60	0.80	2.09	27.01
24/08/2020	2.31	2.33	2.30	3.10	2.31	4.01	2.00	2.51	23.08
25/08/2020	2.40	2.58	2.41	3.30	2.45	4.30	1.50	2.66	25.89
26/08/2020	2.41	2.41	2.48	3.29	2.44	4.00	2.20	2.65	39.18
27/08/2020	2.45	1.96	2.41	3.41	2.33	4.10	0.60	2.60	37.73
28/08/2020	2.46	1.96	2.34	3.68	2.30	4.60	0.90	2.65	40.60
29/08/2020	2.48	2.52	2.59	3.73	2.53	4.60	2.01	2.83	46.15
30/08/2020	2.65	2.28	1.85	2.25	2.26	3.30	1.68	2.26	36.86
31/08/2020	2.45	1.91	2.39	3.77	2.30	5.21	0.33	2.65	21.81
Maximum	3.00	2.89	2.62	3.85	2.83	5.21	2.20	2.98	53.09
Minimum	1.53	1.26	1.09	1.86	1.51	2.65	0.10	1.66	15.47
Average	2.19	2.07	2.01	2.79	2.09	3.67	0.98	2.27	27.76

MCP: Market Clearing Price (Rs/kWh)

FSV: Final Scheduled Volume (MU)

Comparison of MCP w.r.t. Purchase Bid for 2,976 Time Blocks during the month of August, 2020



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

Annexure-IX**Maximum Final Schedule Volume (FSV), Minimum FSV, Maximum Market Clearing Price (MCP) and Minimum MCP in RTM**

Date	Max. FSV (MU)		Max. MCP (Rs/kWh)		Min FSV (MU)		Min. MCP (Rs/kWh)	
	Time Block	Value	Time Block	Value	Time Block	Value	Time Block	Value
01/08/2020	00:15 - 00:30	0.30	21:30 - 21:45	3.22	19:30 - 19:45	0.06	17:15 - 17:30	0.60
02/08/2020	14:30 - 14:45	0.30	19:45 - 20:00	2.99	08:00 - 08:15	0.03	08:00 - 08:15	0.10
03/08/2020	14:15 - 14:30	0.63	21:45 - 22:00	2.65	06:00 - 06:15	0.07	17:45 - 18:00	0.20
04/08/2020	22:30 - 22:45	0.71	20:15 - 20:30	3.00	17:45 - 18:00	0.12	10:30 - 10:45	1.40
05/08/2020	10:45 - 11:00	1.05	21:00 - 21:15	2.90	18:30 - 18:45	0.07	18:30 - 18:45	1.20
06/08/2020	13:30 - 13:45	0.68	21:15 - 21:30	3.61	21:15 - 21:30	0.14	09:45 - 10:00	1.40
07/08/2020	15:30 - 15:45	0.67	21:45 - 22:00	5.20	00:15 - 00:30	0.06	02:45 - 03:00	1.40
08/08/2020	23:15 - 23:30	0.73	23:00 - 23:15	4.40	08:15 - 08:30	0.17	18:00 - 18:15	1.20
09/08/2020	12:30 - 12:45	0.59	00:00 - 00:15	3.30	18:30 - 18:45	0.07	17:45 - 18:00	1.04
10/08/2020	19:45 - 20:00	0.38	20:15 - 20:30	3.60	03:45 - 04:00	0.07	03:45 - 04:00	1.50
11/08/2020	15:30 - 15:45	0.51	20:15 - 20:30	3.50	07:45 - 08:00	0.12	03:45 - 04:00	1.40
12/08/2020	15:00 - 15:15	0.62	19:30 - 19:45	3.50	04:30 - 04:45	0.09	13:15 - 13:30	1.50
13/08/2020	10:30 - 10:45	0.43	20:45 - 21:00	3.15	12:00 - 12:15	0.10	05:00 - 05:15	0.20
14/08/2020	20:30 - 20:45	0.36	19:15 - 19:30	3.50	05:15 - 05:30	0.11	05:15 - 05:30	0.20
15/08/2020	17:30 - 17:45	0.32	20:00 - 20:15	2.79	18:30 - 18:45	0.08	09:15 - 09:30	0.70
16/08/2020	22:45 - 23:00	0.36	21:00 - 21:15	3.12	12:00 - 12:15	0.09	05:15 - 05:30	0.20
17/08/2020	15:00 - 15:15	0.43	20:45 - 21:00	4.20	07:15 - 07:30	0.11	06:15 - 06:30	0.20
18/08/2020	12:00 - 12:15	0.39	20:00 - 20:15	3.60	23:45 - 24:00	0.13	08:00 - 08:15	0.20
19/08/2020	14:15 - 14:30	0.38	20:45 - 21:00	2.85	05:00 - 05:15	0.06	12:45 - 13:00	1.40
20/08/2020	17:45 - 18:00	0.35	20:15 - 20:30	3.40	00:00 - 00:15	0.06	05:45 - 06:00	0.20
21/08/2020	08:15 - 08:30	0.55	19:15 - 19:30	4.35	23:45 - 24:00	0.11	03:45 - 04:00	1.00
22/08/2020	08:15 - 08:30	0.39	21:45 - 22:00	3.15	17:30 - 17:45	0.08	17:00 - 17:15	1.20
23/08/2020	16:15 - 16:30	0.61	19:30 - 19:45	3.60	21:45 - 22:00	0.10	08:30 - 08:45	0.80
24/08/2020	23:30 - 23:45	0.47	19:30 - 19:45	4.01	00:00 - 00:15	0.11	00:45 - 01:00	2.00
25/08/2020	15:45 - 16:00	0.47	21:15 - 21:30	4.30	00:45 - 01:00	0.08	05:00 - 05:15	1.50
26/08/2020	12:30 - 12:45	0.65	21:00 - 21:15	4.00	18:45 - 19:00	0.17	07:45 - 08:00	2.20
27/08/2020	21:30 - 21:45	0.77	21:15 - 21:30	4.10	08:45 - 09:00	0.11	08:45 - 09:00	0.60
28/08/2020	23:45 - 24:00	0.69	20:00 - 20:15	4.60	06:45 - 07:00	0.21	06:45 - 07:00	0.90
29/08/2020	22:30 - 22:45	0.79	20:00 - 20:15	4.60	10:00 - 10:15	0.24	02:15 - 02:30	2.01
30/08/2020	13:45 - 14:00	0.70	00:15 - 00:30	3.30	19:00 - 19:15	0.10	17:15 - 17:30	1.68
31/08/2020	23:15 - 23:30	0.40	22:00 - 22:15	5.21	04:00 - 04:15	0.13	07:00 - 07:15	0.33

MCP: Market Clearing Price (Rs/kWh)

FSV: Final Scheduled Volume (MU)

Annexure-X**Top Ten Entities (Sellers and Purchasers) in Real Time Market (RTM) in the month of August, 2020**

Entity Name	Sell		Entity Name	Purchase	
	(MU)	Percent (%)		(MU)	Percent (%)
UT of J&K and Ladakh	154.22	17.92%	Telangana	220.12	25.58%
Karnataka	148.75	17.28%	West Bengal	113.02	13.13%
Madhya Pradesh	50.88	5.91%	Haryana	108.94	12.66%
Odisha	47.73	5.55%	Rajasthan	76.49	8.89%
Uttar Pradesh	43.44	5.05%	Maharashtra	57.89	6.73%
NLC	39.58	4.60%	Andhra Pradesh	56.27	6.54%
Sembcorp Gayatri	30.34	3.53%	Delhi	53.50	6.22%
Chhattisgarh	24.41	2.84%	Uttar Pradesh	32.46	3.77%
Delhi	17.93	2.08%	Assam	26.29	3.06%
NLC TPS-II Expn	17.12	1.99%	Bihar	24.01	2.79%
Total	574.40	66.75%	Total	768.99	89.36%
Total Volume in PXs	860.57		Total Volume in	860.57	

Appendix-I**Analysis for change in trend of Final Scheduled Volume in DAM on 1st Monday and on 2nd, 3rd & 5th Sunday of August, 2020 (i.e. 3rd, 9th, 16th and 30th August 2020)**

During the month of August, 2020, it is observed that on first Monday (i.e. 3rd August, 2020), FSV showed decreasing trend in comparison to Sunday (i.e. 2nd August, 2020). Whereas, on second, third and fifth Sundays (i.e. 9th, 16th, and 30th August, 2020), FSV showed increasing trend in comparison to Saturdays (i.e. 8th, 15th, and 29th August 2020). On analysis of this variation in trends of FSV on above days during August, 2020, it has been observed as under:

- (i) On Monday (3rd August, 2020), although there was increase in purchase volume on power exchange by some of the States in comparison to Sunday (2nd August, 2020) by **19.67 MU** [i.e. Punjab (6.90 MU), Telangana (3.79 MU), Tamil Nadu (3.00 MU), Uttarakhand (2.98 MU), etc.], there was also decrease in purchase volume on power exchange by some of the States by **29.17 MU** [i.e. Gujarat (8.00 MU), Chhattisgarh (4.41 MU), Uttar Pradesh (3.51 MU), Haryana (3.39) etc.] This resulted in an overall decrease in FSV by **9.50 MU** on Monday (3rd August, 2020).
- (ii) Similarly, on Sunday (9th August, 2020) there was increase in purchase volume on power exchange by some of the States and entities in comparison to Saturday (8th August, 2020) by 19.62 MU [i.e. Telangana (13.32 MU), Haryana (2.45 MU), Andhra Pradesh (1.37 MU), Bihar (1.06), Arcelor Mittal Nippon Steel (ESIL) (0.68 MU), etc.]. There was also decrease in purchase volume on power exchange by some of the States by 14.64 MU [i.e. Punjab (2.90 MU), Uttar Pradesh (2.49 MU), Assam (2.35 MU), Tamil Nadu (2.26 MU) etc.] This resulted in an overall increase in FSV by 4.98 MU on Sunday (9th August, 2020).
- (iii) Further, On Sunday (16th August, 2020) there was increase in purchase volume on power exchange by some of the States in comparison to Saturday (15th August, 2020) by 27.91 MU [i.e. Haryana (8.94 MU), Uttar Pradesh (4.74 MU), Punjab (3.60 MU), Bihar (3.32), etc.]. There was also decrease in purchase volume on power exchange by some of the States by 9.85 MU [i.e. Gujarat (5.89 MU), Tamil Nadu (2.21 MU) Assam (1.19 MU), Andhra Pradesh (0.46 MU), etc.] This resulted in an overall increase in FSV by 18.06 MU on Sunday (16th August, 2020).
- (iv) On Sunday (30th August, 2020) there was increase in purchase volume on power exchange by some of the States in comparison to Saturday (29th August, 2020) by 41.51 MU [i.e. Andhra Pradesh (32.51 MU), Uttar Pradesh (4.63 MU), Punjab (1.90 MU), Bihar (1.87), etc.]. There was also decrease in purchase volume on power exchange by some of the States by 34.68 MU [i.e. Haryana (8.78 MU), Gujarat (5.90 MU), Delhi (5.28 MU), Maharashtra (3.85 MU), etc.] This resulted in an overall increase in FSV by 6.83 MU on Sunday (30th August, 2020).

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.

13 Bid area 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. **Average MCP** is the average of daily MCP of the days during the month on which transaction happened.
3. **Daily MCP** is the average of MCP of all 96 Time Blocks of the day during which transaction happened.
4. **Day-Ahead Market (DAM)** on the power exchanges are market for electricity where market participants purchase and sell electricity at financially binding day-ahead prices for the following day.
5. **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.
6. **Energy Supplied** is the total energy (MU) available at the States' periphery.
7. **Final Scheduled Volume** is the total of scheduled volume of all 96 time blocks in a day during the month in which transaction happened.
8. **Green Term Ahead Market (GTAM)** is based on the principles of current Term Ahead Market (TAM) and will offer trade through Intra-day Contracts, Day ahead contingency Contracts, Daily Contracts and Weekly Contracts for both solar and non-Solar Renewable Energy (RE) generation. GTAM is a market-based mechanism, where RE surplus and RE deficit States can trade RE Power and balance their RPO targets.
9. **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.
10. **Real Time Market (RTM)** on the power exchanges is the market for electricity where market participants buy/ sell electricity on a half-hourly market and would commence with the end of the right to revision of schedule or declared capability and would end with gate closure. The auction sessions would be conducted every half an hour for the delivery of power for the duration of 30 minutes in two time blocks of 15 minutes each to commence from one hour after the closure of the RTM trading session.

11. Term Ahead Market (TAM) on the power exchanges is the market for electricity where market participants buy/sell electricity on a term basis ranging from 3 hours before actual despatch (i.e. intra-day) and up to 11 days in advance. There are 4 types of contracts in TAM, namely; Intra-day, Day Ahead Contingency, Daily and Weekly.