



मार्च, 2021 मासिक मार्केट मॉनिटरिंग रिपोर्ट

Monthly Market Monitoring Report

March, 2021



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केन्द्रीय विद्युत प्राधिकरण/ Central Electricity Authority
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REPORT FOR MONTH: MARCH, 2021

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 March, 2021 was **6,559.88 MU**. The total energy supplied in the country during the month of March, 2021 was 1,20,635 MU. Thus, the volume of electricity transacted on the power exchanges in DAM was 5.44% of the total energy supplied in the country. The total volume of electricity transacted in DAM during February, 2021 was **5,107.19 MU** which was 4.95% of the total energy supplied [1,03,252 MU] in the country during February, 2021. Similarly, the total volume of electricity transacted in DAM during March, 2020 was **3,971.24 MU** which was 4.01 % of the total energy supplied [98,952 MU] in the country during March, 2020.
- 1.2.** The volume of electricity transacted on IEX and PXIL during March, 2021 were **6,548.94 MU and 10.94 MU**, respectively, which means that the total volume transacted on IEX was **99.83%** of the total volume on power exchanges. The volume of electricity transacted on IEX and PXIL during February, 2021 were **5,099.75 MU and 7.44 MU**, respectively, which means that the total volume transacted on IEX was **99.85 %** of the total volume on power exchanges. Also, the total volume of electricity transacted during March, 2020 on IEX was **3,971.24 MU**, whereas, **no transaction** of electricity happened in PXIL during March, 2020.
- 1.3.** The Average Market Clearing Price (MCP) on IEX during the month of March, 2021 was **Rs 4.07/kWh**, which shows an increase of **20.06% and 65.45%** when compared with average MCP's for the month of February, 2021 and March, 2020, which were **Rs 3.39/kWh and Rs 2.46/kWh**, respectively. On PXIL, the average MCP during the month of March, 2021 was **Rs 4.32/kWh**, which shows an increase of **17.07%** when compared with average MCP for the month of February, 2021 which was **Rs 3.69/kWh**, whereas in PXIL, **no transaction** of electricity happened during March, 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 March, 2021 with that of February, 2021 and March, 2020 is given in Table-1A & 1B:

(a) March, 2021 vis- a -vis February, 2021

Daily MCP (Rs/kWh)	IEX			PXIL		
	March, 2021	February, 2021	% Change	March, 2021	February, 2021	% Change
Minimum	2.99	2.85	4.91	3.13	2.62	19.47
Maximum	5.42	4.54	19.38	5.99	4.73	26.64
Average	4.07	3.39	20.06	4.32	3.69	17.07

Table: 1A**(b) March, 2021 vis- a –vis March, 2020**

Daily MCP (Rs/kWh)	IEX			PXIL		
	March, 2021	March, 2020	% Change	March, 2021	March, 2020	% Change
Minimum	2.99	1.92	55.73	3.13	-	NA
Maximum	5.42	2.92	85.62	5.99	-	NA
Average	4.07	2.46	65.45	4.32	-	NA

-: No transaction happened

NA: Not Applicable

Table: 1B

2.2. The maximum Area Clearing Price (ACP) of **Rs 9.88/kWh** in IEX was observed in all 13 regions during the time block **16:45-17:00 Hrs** on 27th March, 2021. As there was no congestion in transmission system, the MCP for this time-block was also **Rs 9.88/kWh**. However, the Daily MCP in IEX on pan India basis on 27th March, 2021 was **Rs 4.99/kWh**. Whereas, in PXIL, the maximum ACP of **Rs 7.80/kWh** was observed in all 13 regions during the time periods from **17:45-18:00 Hrs** on 01st March, 2021. As there was no congestion in transmission system, the MCP for above time blocks was also **Rs 7.80/kWh**. However, the Daily MCP in PXIL on 01st March, 2021 was **Rs 3.13/kWh**.

2.3. The minimum ACP of **Rs 2.34/kWh** in IEX was observed in all 13 regions during the time block **09:45-10:00 Hrs** on 29th March, 2021. As there was no congestion in transmission system, the MCP for this time-block was also **Rs 2.34/kWh**. However, the Daily MCP in IEX on pan India basis on 29th March, 2021 was **Rs 2.99/kWh**. Whereas, in PXIL, the minimum ACP of **Rs 2.62/kWh** was observed in all 13 regions on 4th March, 2021 for time block **08.15-08.30 Hrs** during March,2021. As no congestion was there in transmission system, the MCP for the above time blocks was also **Rs 2.62/kWh**. However, the Daily MCP in PXIL on 4th March, 2021 was **Rs 3.44/kWh, respectively**.

2.4. A comparison of the Minimum and Maximum Area Clearing Price (ACP) during the months of March, 2021 with that of February, 2021 and March, 2020 is given in Table-2A&2B:

(a) March, 2021 vis- a -vis February, 2021

ACP (Rs/kWh)	IEX			PXIL		
	March, 2021	February, 2021	% Change	March, 2021	Februa ry, 2021	% Change
Minimum	2.34	1.58	48.10	2.62	2.58	1.55
Maximum	9.88	8.75	12.91	7.80	13.95	-44.09

Table: 2A

(b) March, 2021 vis- a- vis March, 2020

ACP (Rs/kWh)	IEX			PXIL		
	March, 2021	March, 2020	% Change	March, 2021	March, 2020	% Change
Minimum	2.34	0.60	290.00	2.62	-	NA
Maximum	9.88	4.99	98.00	7.80	-	NA

-: No transaction happened

NA: Not Applicable

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 March, 2021 with that of February, 2021 and March, 2020 is given in Table-3A & 3B:

(a) March, 2021 vis- a- vis February, 2021

Final Scheduled Volume (MU)	IEX			PXIL		
	March, 2021	February, 2021	% Change	March, 2021	February, 2021	% Change
Minimum	181.14	152.98	18.41	0.01	0.09	-88.89
Maximum	251.01	203.71	23.22	1.22	0.47	159.57
Average	211.26	182.13	15.99	0.41	0.27	51.85

Table: 3A

(b) March, 2021 vis- a- vis March, 2020

Final Scheduled Volume (MU)	IEX			PXIL		
	March, 2021	March, 2020	% Change	March, 2021	March, 2020	% Change
Minimum	181.14	77.55	133.58	0.01	-	NA
Maximum	251.01	175.71	42.85	1.22	-	NA
Average	211.26	128.10	64.92	0.41	-	NA

-: No transaction happened

NA: Not Applicable

Table: 3B

- 2.6. The total volume of electricity transacted in DAM on both the power exchanges during the period April, 2020 to March, 2021 was **60,632.69 MU**. The same was **49,160.02 MU** during the period April, 2019 to March, 2020, which shows an **increase of 23.34 %**.

3. TERM AHEAD MARKET (TAM)

Term Ahead Market (TAM) (on Trade Date Basis)

- 3.1. The total volume of electricity transacted on both the power exchanges in Term Ahead Market on trade date basis in March, 2021 was **685.38 MU**, out of which, **332.18 MU (48.47 %)** was transacted on IEX and **353.20 MU (51.53%)** was transacted on PXIL.
- 3.2. The total volume of electricity transacted on both the power exchanges in Term Ahead Market on trade date basis in February, 2021 was **749.56 MU**, out of which, **305.50 MU (40.76 %)** was transacted on IEX and **444.06 MU (59.24%)** was transacted on PXIL.
- 3.3. Similarly, total volume of electricity transacted during March, 2020 in Term Ahead Market on trade date basis in both the power exchanges was **376.93 MU**, out of which, **358.52 MU (95.12 %)** was transacted on IEX and **18.41 MU (4.88%)** was transacted on PXIL.
- 3.4. With respect to the total energy supplied during the month of March, 2021 in the country, the volume of electricity traded on the power exchanges in TAM on trade date basis represents **0.57%** of the total energy supplied. The same was **0.73 %** in February, 2021 and **0.38 %** in March, 2020.
- 3.5. The total volume of electricity transacted in TAM **on trade date basis** on both the power exchanges cumulatively during the period April, 2020 to March, 2021 was **8,444.32 MU**, which shows an increase of **14.23 %** as compared to **7,392.12 MU** during the period April, 2019 to March, 2020.
- 3.6. In the month of March, 2021, there was no transmission congestion in IEX, whereas in PXIL, there was a transmission congestion of **0.08 MU** during the month of March, 2021.
- 3.7. **The comparison of total volume of electricity transacted on both the power exchanges in Term Ahead Market (TAM) during March, 2021 with February, 2021 and March, 2020 is given in Table- 4A&4B:**

(a) March, 2021 vis- a- vis February, 2021 (on trade Date Basis)

Contract Type	IEX			PXIL		
	March, 2021	February, 2021	% Change	March, 2021	February, 2021	% Change
Intra Day (MU)	3.62	1.31	176.34	12.07	14.55	-17.04
Day Ahead Contingency(M	46.08	56.71	-18.74	-	-	NA
Daily/ Any Day (MU)	282.48	247.48	14.14	341.13	429.51	-20.58
Weekly (MU)	-	-	NA	-	-	NA

- : No Transaction happened

NA: Not Applicable

Table: 4A

(a) March, 2021 vis- a- vis March, 2020 (on trade Date Basis)

Contract Type	IEX			PXIL		
	March, 2021	March, 2020	% Change	March, 2021	March, 2020	% Change
Intra Day	3.62	33.22	-89.10	12.07	10.57	14.19
Day Ahead Contingency (MU)	46.08	46.90	-1.75	-	0.43	NA
Daily/ Any Day (MU)	282.48	177.60	59.05	341.13	7.41	4503.64
Weekly (MU)	-	100.80	NA	-	-	NA

-: No transaction happened

NA: Not Applicable

Table: 4B**Term Ahead Market (TAM) (on delivery Date Basis)**

- 3.8.** The total volume of electricity transacted on both the power exchanges in Term Ahead Market on delivery date basis in March, 2021 was **622.72 MU**, out of which, **234.18 MU (37.61%)** was transacted on IEX and **388.54 MU (62.39%)** was transacted on PXIL.
- 3.9.** The total volume of electricity transacted on both the power exchanges in Term Ahead Market on delivery date basis in February, 2021 was **912.62 MU**, out of which, **432.24 MU (47.36 %)** was transacted on IEX and **480.38 MU (52.64%)** was transacted on PXIL.
- 3.10.** Similarly, total volume of electricity transacted during March, 2020 in Term Ahead Market on delivery date basis in both the power exchanges was **338.92 MU**, out of which, **320.01 MU (94.42%)** was transacted on IEX and **18.91 MU (5.58%)** was transacted on PXIL.
- 3.11.** With respect to the total energy supplied during the month of March, 2021 in the country, the volume of electricity traded on the power exchanges in TAM on delivery date basis represents **0.52 %** of the total energy supplied. The same was **0.88 %** in February, 2021 and **0.34%** in March, 2020.
- 3.12.** The total volume of electricity transacted in TAM **on delivery date basis** on both the power exchanges cumulatively during the period April, 2020 to March, 2021 was **8,732.99 MU**, which shows an increase of **19.76 %** as compared to **7,292.00 MU** during the period April, 2019 to March, 2020.
- 3.13.** In the month of March, 2021, there was real time curtailment in IEX of **0.015 MU** in Daily/ Anyday contracts, whereas in PXIL, there was real time curtailment of **0.082 MU** in Daily/ Any day contract during March, 2021.

3.14. The comparison of total volume of electricity transacted in both the power exchanges in Term Ahead Market (TAM) on delivery date basis during March, 2021 with February, 2021 and March, 2020 is given in Table – 4C&4D:

(b) March, 2021 vis- a- vis February, 2021 (on Delivery Date Basis)

Contract Type	IEX			PXIL		
	March, 2021	February, 2021	% Change	March, 2021	February, 2021	% Change
Intra Day (MU)	3.62	1.31	176.34	12.07	14.55	-17.04
Day Ahead Contingency(MU)	46.66	58.26	-19.91	-	-	NA
Daily/ Any Day (MU)	183.90	372.67	-50.65	376.47	465.83	-19.18
Weekly (MU)	-	-	NA	-	-	NA

- : No transaction happened

NA: Not Applicable

Table: 4C

(b) March, 2021 vis- a- vis March, 2020 (on Delivery Date Basis)

Contract Type	IEX			PXIL		
	March, 2021	March, 2020	% Change	March, 2021	March, 2020	% Change
Intra Day (MU)	3.62	32.64	-88.91	12.07	10.57	14.19
Day Ahead Contingency MU)	46.66	45.72	2.06	-	0.43	NA
Daily/ Any Day (MU)	183.90	177.60	3.55	376.47	7.91	4659.42
Weekly (MU)	-	64.05	NA	-	-	NA

-: No transaction happened

NA: Not Applicable

Table: 4D

4. REAL TIME MARKET (RTM)

The transaction of Electricity in Real Time Market was started from 1stJune, 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) and Area Clearing Prices (ACP) in Real Time Market during the month of March, 2021 as compared with February, 2021 are as given in table 5A, 5B & 5C:

(i) Final Scheduled Volume:

Final Scheduled Volume (MU)	IEX			PXIL		
	March, 2021	February, 2021	% Change	March, 2021	February, 2021	% Change
Total	1413.96	1118.45	26.42	No Transaction		
Minimum	34.64	28.28	22.49	No Transaction		
Maximum	62.77	52.73	19.04	No Transaction		
Average	45.61	39.94	14.20	No Transaction		

Table-5A

(ii) Daily Market Clearing Price (MCP):

Daily MCP (Rs/kWh)	IEX			PXIL		
	March, 2021	February, 2021	% Change	March, 2021	February, 2021	% Change
Minimum	2.60	2.66	-2.26	No Transaction		
Maximum	6.20	4.72	31.36	No Transaction		
Average	3.73	3.31	12.69	No Transaction		

Table-5B**(iii) Area Clearing Price (ACP):**

ACP (Rs/kWh)	IEX			PXIL		
	March, 2021	February, 2021	% Change	March, 2021	February, 2021	% Change
Minimum	1.43	1.58	-9.49	No Transaction		
Maximum	19.99	9.00	122.11	No Transaction		

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

The transaction of electricity in Green Term Ahead Market was started in IEX w.e.f. 21st August, 2020 onwards and in PXIL w.e.f. 24th March, 2021 onwards. The total volume of electricity transacted in Solar Energy Segment in GTAM in Day Ahead Contingency, Intraday, Daily/ Anyday and Weekly contracts during March, 2021 on trade date basis and delivery date basis has been shown in Tables 6A to 6H.

5.1. Solar Energy Segment in GTAM (On Trade date basis)

The Final Scheduled Volume and the Price of electricity transacted in GTAM in IEX during March, 2021 and its comparison with February, 2021 has been shown in Table 6A & 6B below.

(i) Final Scheduled Volume:

Solar Energy Contract	Period	Final Scheduled Volume MU)			
		Total	Minimum	Maximum	Average
Day Ahead Contingency	March, 2021	21.44	0.06	2.03	0.69
	February, 2021	35.76	0.15	2.08	1.28
	% Change	-40.04	-60.00	-2.40	-46.09
Intraday	March, 2021	-	-	-	-
	February, 2021	1.72	0.05	1.04	0.57
	% Change	NA	NA	NA	NA
Daily- Anyday	March, 2021	-			
	February, 2021	-			
Weekly	March, 2021	-			
	February, 2021	-			

-: No transaction happened

NA: Not Applicable

Table-6A

(ii) Daily Market Clearing Price (MCP):

Solar Energy Contract	Period	Prices (Rs/kWh)		
		Minimum	Maximum	Average
Day Ahead Contingency	March , 2021	3.42	5.00	4.17
	February, 2021	3.54	4.88	4.03
	%Change	-3.39	2.46	3.47
Intraday	March , 2021	-	-	-
	February, 2021	4.00	4.50	4.17
	%Change	NA	NA	NA
Daily-Anyday	March , 2021	-		
	February, 2021	-		
Weekly	March , 2021	-		
	February, 2021	-		

-: No transaction happened

NA: Not Applicable

Table-6B

Solar Energy Segment in GTAM (On Delivery date basis)

The Final Scheduled Volume and the Price of electricity transacted in GTAM in IEX during March, 2021 and its comparison with February, 2021 has been shown in Table 6C & 6D below.

(i) Final Scheduled Volume:

Solar Energy Contract	Period	Final Scheduled Volume MU)			
		Total	Minimum	Maximum	Average
Day Ahead Contingency	March, 2021	22.18	0.06	2.03	0.72
	February, 2021	35.89	0.15	2.08	1.28
	% Change	-38.20	-60.00	-2.40	-43.75
Intraday	March, 2021	-	-	-	-
	February, 2021	1.72	0.05	1.04	0.57
	% Change	NA	NA	NA	NA
Daily-Anyday	March, 2021	-	-	-	-
	February, 2021	0.40	0.20	0.20	0.20
	% Change	NA	NA	NA	NA
Weekly	March, 2021	-			
	February, 2021	-			

-: No transaction happened

NA: Not Applicable

Table-6C

(ii) Daily Market Clearing Price (MCP):

Solar Energy Contract	Period	Prices (Rs/kWh)		
		Minimum	Maximum	Average
Day Ahead Contingency	March , 2021	3.42	5.00	4.18
	February, 2021	3.54	4.88	4.04
	%Change	-3.39	2.46	3.47
Intraday	March , 2021	-	-	-
	February, 2021	4.00	4.50	4.17
	%Change	NA	NA	NA
Daily/Anyday	March , 2021	-	-	-
	February, 2021	4.50	4.50	4.50
	% Change	NA	NA	NA
Weekly	March , 2021	-		
	February, 2021	-		

-: No transaction happened

NA: Not Applicable

Table-6D

5.2. Non-Solar Energy Segment in GTAM (On Trade date basis)

The total volume of electricity transacted in non-Solar Energy Segment in GTAM in Day Ahead Contingency, Intraday, Daily/ Anyday and Weekly contracts during March, 2021 on trade date basis and delivery date basis has been shown in Tables 6E to 6H.

The Final Scheduled Volume and the Price of electricity transacted in Non-Solar GTAM in IEX during March, 2021 and its comparison with February, 2021 has been shown in Table 6E & 6F below.

(iii) Final Scheduled Volume:

Exchange	Non- Solar Energy Contract	Period	Final Scheduled Volume (MU)				
			Total	Minimum	Maximum	Average	
IEX	Day Ahead Contingency	March, 2021	29.67	0.22	5.26	1.24	
		February, 2021	56.25	0.28	8.38	2.08	
		%Change	-47.25	-21.43	-37.23	-40.39	
	Intraday	March, 2021	0.35	0.35	0.35	0.35	
		February, 2021	-	-	-	-	
		%Change	NA	NA	NA	NA	
	Daily/ Anyday	March, 2021	-				
		February, 2021	-				
	Weekly	March, 2021	-				
		February, 2021	-				
	PXIL	Day Ahead Contingency	March, 2021	-			
			February, 2021	-			
Intraday		March, 2021	0.39	0.03	0.26	0.13	
		February, 2021	-	-	-	-	
		% Change	NA	NA	NA	NA	
Daily/ Anyday		March, 2021	0.20	0.20	0.20	0.20	
		February, 2021	-	-	-	-	
		% Change	NA	NA	NA	NA	
Weekly		March, 2021	-				
		February, 2021	-				

-: No transaction happened

NA: Not Applicable

Table-6E

(iv) Daily Market Clearing Price (MCP) (On Trade date basis):

Exch- ange	Non- Solar Energy Contract	Period	Prices(Rs/k Wh)		
			Minimum	Maximum	Average
IEX	Day Ahead Contingency	March, 2021	4.00	5.10	4.40
		February, 2021	3.80	4.99	4.42
		% Change	5.26	2.20	-0.45
	Intraday	March, 2021	5.10	5.10	5.10
		February, 2021	-	-	-
		%Change	NA	NA	NA
	Daily/Anyday	March, 2021	-	-	-
		February, 2021	-	-	-
	Weekly	March, 2021	-	-	-
		February, 2021	-	-	-
PXIL	Day Ahead Contingency	March, 2021	-	-	-
		February, 2021	-	-	-
	Intraday	March, 2021	4.50	5.45	4.83
		February, 2021	-	-	-
		% Change	NA	NA	NA
	Daily/ Anyday	March, 2021	4.60	4.60	4.60
		February, 2021	-	-	-
		% Change	NA	NA	NA
	Weekly	March, 2021	-	-	-
		February, 2021	-	-	-

-: No transaction happened

NA: Not Applicable

Table-6F

Non-Solar Energy Segment in GTAM (On Delivery date basis)

The Final Scheduled Volume and the Price of electricity transacted in GTAM in IEX during March, 2021 and its comparison with February, 2021 has been shown in Table 6G & 6H below.

(iii) Final Scheduled Volume:

Exch- ange	Non- Solar Energy Contract	Period	Final Scheduled Volume (MU)			
			Total	Minimum	Maximum	Average
IEX	Day Ahead Contingency	March, 2021	31.68	0.22	5.26	1.32
		February, 2021	55.13	0.28	8.38	2.04
		% Change	-42.54	-21.43	-37.23	-35.29
	Intraday	March, 2021	0.35	0.35	0.35	0.35
		February, 2021	-	-	-	-
		%Change	NA	NA	NA	NA
	Daily/ Anyday	March, 2021	-	-	-	-
		February, 2021	0.14	0.07	0.07	0.07
		%Change	NA	NA	NA	NA
	Weekly	March, 2021	-	-	-	-
February, 2021		-	-	-	-	

Table-6G (Continued)

PXIL	Day Ahead Contingency	March, 2021	-			
		February, 2021	-			
	Intraday	March, 2021	0.39	0.03	0.26	0.13
		February, 2021	-	-	-	-
		%Change	NA	NA	NA	NA
	Daily/Anyday	March, 2021	-			
		February, 2021	-			
	Weekly	March, 2021	-			
February, 2021		-				

-: No transaction happened

NA: Not Applicable

Table-6G

(iv) Daily Market Clearing Price (MCP):

Exchange	Non- Solar Energy Contract	Period	Prices(Rs/kWh)		
			Minimum	Maximum	Average
IEX	Day Ahead Contingency	March, 2021	4.00	5.10	4.40
		February, 2021	3.80	4.99	4.44
		% Change	5.26	2.20	-0.90
	Intraday	March, 2021	5.10	5.10	5.10
		February, 2021	-	-	-
		%Change	NA	NA	NA
	Daily/Anyday	March, 2021	-	-	-
		February, 2021	4.01	4.01	4.01
		% Change	NA	NA	NA
	Weekly	March, 2021	-		
		February, 2021	-		
	PXIL	Day Ahead Contingency	March, 2021	-	
February, 2021			-		
Intraday		March, 2021	4.50	5.45	4.83
		February, 2021	-	-	-
		%Change	NA	NA	NA
Daily/Anyday		March, 2021	-		
		February, 2021	-		
Weekly		March, 2021	-		
		February, 2021	-		

-: No transaction happened

NA: Not Applicable

Table-6H

6. BILATRAL TRANSACTIONS:

The total volume of electricity transacted through **Bilateral transactions** in the month of March, 2021 for buy and sell were **5,574.29 MU** and **5,574.22 MU** respectively. The total buy volume of electricity transacted in bilateral market through direct transactions and traders were **1,025.34 MU** and **4,548.95 MU** respectively. Similarly, the total sell volume of electricity transacted in bilateral market through direct transactions and traders were **1,121.65 MU** and

4,452.57 MU respectively. The details of Bilateral buy and sell Transactions of Electricity happened during March, 2021 have been shown in Tables Below:

Volume (MU)	Buy		Total Buy (MU)	Sell		Total Sell (MU)
	Direct	Traders		Direct	Traders	
Total	1025.34	4548.95	5,574.29	1121.65	4452.57	5,574.22
Maximum	306.15	1837.58	-	302.51	577.05	-
Minimum	0.46	1.17	-	0.22	0.56	-

Table -7A

The region-wise maximum/ minimum volume of electricity for buy and sell happened bilaterally during March, 2021 is given in tables below:

(i) Region-wise Buy Volume:

Table -7B

Region-wise Volume (MU)	ER		WR		NR		SR		NER	
	Direct	Trader	Direct	Trader	Direct	Trader	Direct	Trader	Direct	Trader
Total	244.87	626.58	311.26	852.89	93.92	871.62	332.90	2078.49	42.38	119.38
Maximum	135.05	221.53	158.10	582.23	46.94	367.93	306.15	1837.58	42.38	62.13
Minimum	0.48	3.28	2.40	1.17	0.46	17.54	1.52	9.17	42.38	7.39

(ii) Region-wise Sell Volume:

Region-wise Volume (MU)	ER		WR		NR		SR		NER	
	Direct	Trader	Direct	Trader	Direct	Trader	Direct	Trader	Direct	Trader
Total	415.80	285.36	624.53	2115.89	17.69	1481.54	21.26	533.87	42.38	35.91
Maximum	241.46	247.20	302.51	559.73	11.26	577.05	12.86	371.45	42.38	29.99
Minimum	10.32	0.56	0.22	0.84	1.63	2.94	2.40	1.83	42.38	0.74

Table -7C

- 6.1.** The **top 5 buyers** on bilateral transaction through direct transactions in the month of March, 2021 are Telangana, Madhya Pradesh, Jharkhand, Chhattisgarh and West Bengal, which constituted **80.99%** of the market volume. Whereas **top 5 buyers** on bilateral transaction through traders in the month of March, 2021 are Tamil Nadu, Gujarat, Himachal Pradesh, Maharashtra and Nepal, which constituted **71.02 %** of the market volume. [Annexure III]
- 6.2.** The **top 5 sellers** on bilateral transaction through direct transactions in the month of March, 2021 are RKM_Power, DVC, Adhunik Power, DB Power and Madhya Pradesh, which constituted **77.58%** of the market volume. Whereas **top 5 sellers** on bilateral transaction through traders in the month of March, 2021 are Delhi, Gujarat, Haryana, Raipur Energen and SEIL Project-2, which constituted **54.70%** of the market volume. [Annexure III]

- 6.3. Deviation Import and Export Volume** - The total volume of Deviation observed in the month of March, 2021 were **1891.03 MU** in import and **1839.77 MU** in export, respectively.
- 6.4.** A comparison of volume of electricity transacted through both the Power Exchanges together in DAM and Bilateral **Buy (i.e. Direct and through traders)** in the month of March, 2021 is shown in **Figure 1**:

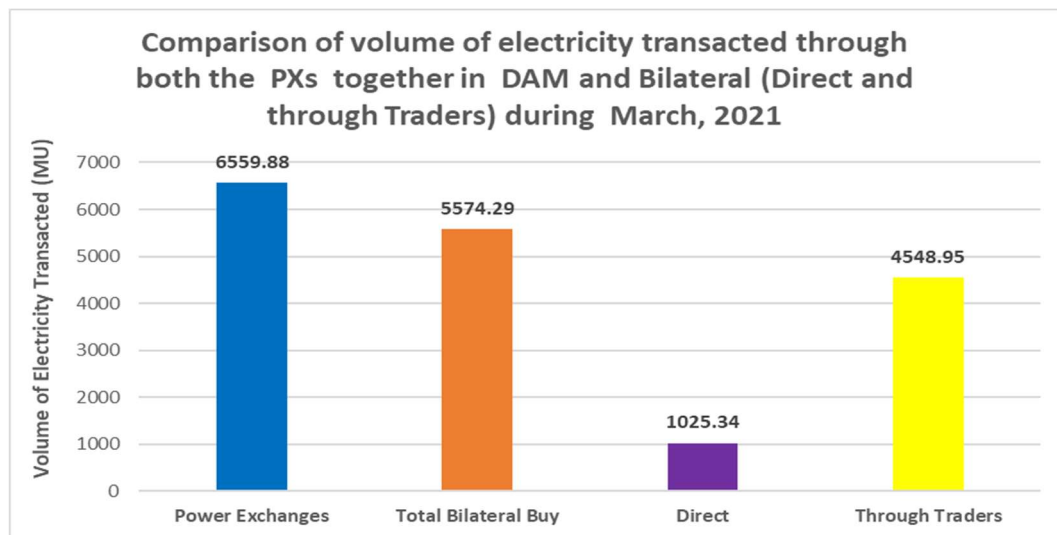


Figure -1

7. ANALYSIS OF MOVEMENT OF PRICES OBSERVED IN DAM DURING MARCH, 2021

A regression analysis has been carried out on the Day Ahead Market data taken from IEX website. Also, data was plotted in various graphs to observe patterns for each day of the March, 2021 month. The observations made are as under:

- 7.1.** 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, total purchase bid, total sell bid, coal generation, hydro generation, wind generation and solar generation.
- 7.2.** 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, Wind generation 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 **0.72**. 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 March, 2021.
- 7.3.** The same relationship is visible from the analysis carried out from the plot in **Figure 2**.

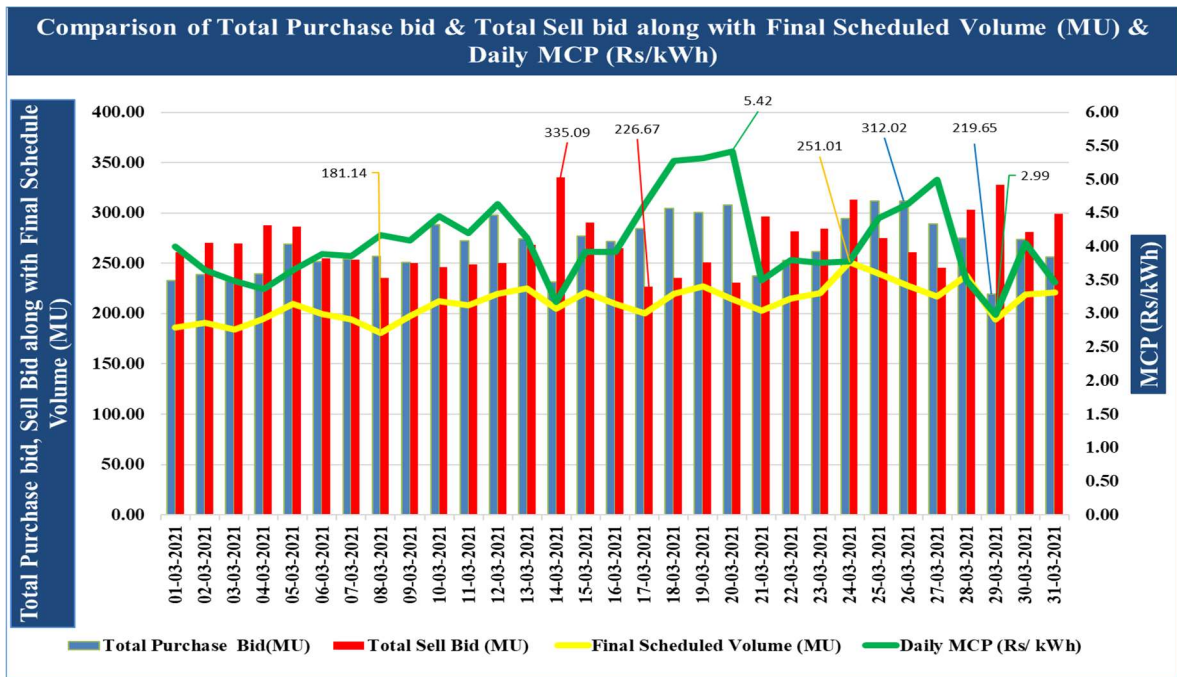


Figure -2

7.4. 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. However, during the month of March, 2021, it is observed that on fifth Monday (i.e. 29th March, 2021), FSV showed decreasing trend in comparison to fourth Sunday (i.e. 28th March, 2021) and on fourth Sunday (i.e. 28th March, 2021), FSV showed increasing trend in comparison to fourth Saturday (i.e. 27th March, 2021). The detailed analysis on this is given at **Appendix-I**.

7.5. A comparison of maximum, minimum, daily, non-peak time, peak time MCP is shown in **Figure -3**. The same are also tabulated in **Annexure IV**.

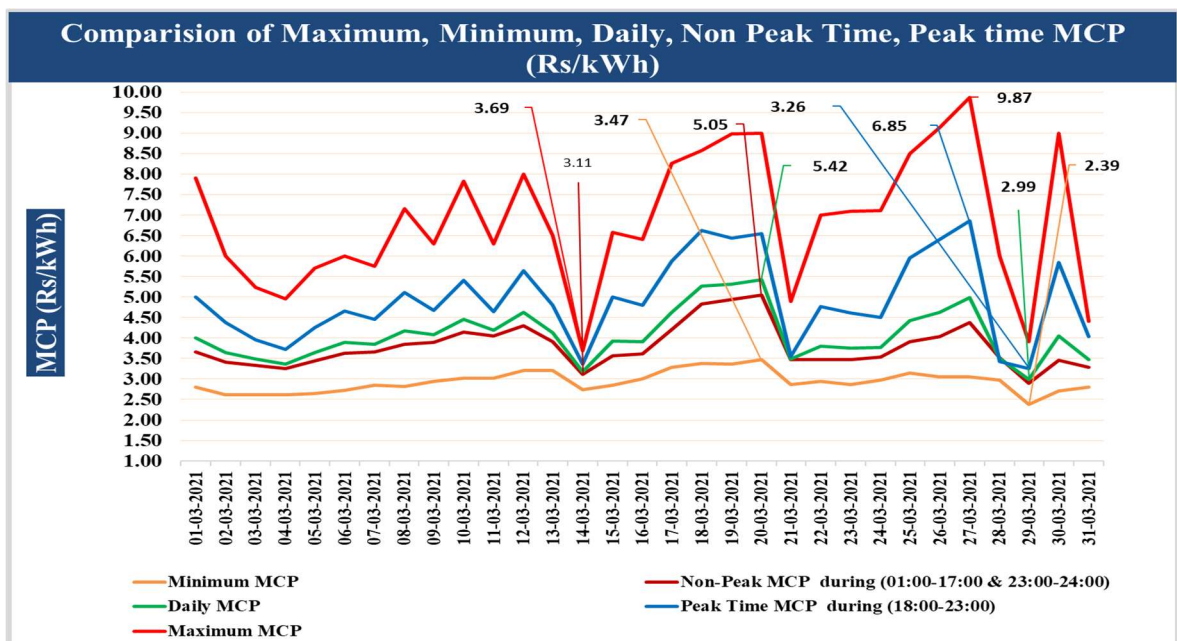


Figure -3

- 7.6. The Purchase Bids and the MCP discovered in each of the 15-minute time block during the month almost followed the same trend [**Annexure V**]. This is also corroborated with the outcome of regression analysis mentioned in at **para 7.1 and 7.2 above**.
- 7.7. On **16 days** during the month, the maximum FSV occurred during the **time period 07:00-08:00 Hrs. [Annexure VI]**
- 7.8. On **21 days** during the month, the maximum MCP occurred during the **time period 18:45-19:30 Hrs. [Annexure VI]**
- 7.9. On **18 days** during the month, the minimum FSV occurred during the **time period 22:00-23:00 Hrs. [Annexure VI]**
- 7.10. On **22 days** during the month, the minimum MCP occurred during the **time period 13:45-14:45 Hrs. [Annexure VI]**
- 7.11. The maximum demand met during the month of March, 2021 in the country occurred on **11th March, 2021 at 186.04 GW**, which is 1.12% lower than the maximum demand occurred during **February, 2021 [i.e. 188.15 GW on 02nd February, 2021]** and is 9.32% more than the maximum demand occurred during March, 2020 i.e. [**170.17 GW on 03rd March, 2020**].
- 7.12. In the month of March, 2021, One nation One Price was observed in IEX for **9 days** during the month, as there was transmission congestion of **24.34 MU** on account of congestion on **22 days** (i.e., 01st to 05th, 11th to 13th, 15th to 16th, 20th to 31st March, 2021). Whereas, in PXIL, there was no congestion in transmission system during March, 2021, so one nation one price was observed on all **27 days** during which transaction of electricity happened (i.e., 1st to 21st, 23rd to 25th and 27th to 29th March, 2021). While in the month of February, 2021, there was no congestion in transmission system in IEX, hence, one nation one price was observed for all 28 days on IEX. In PXIL also, there was no congestion in transmission system during February, 2021, so one nation one price was observed on all 28 days. Similarly, in the month of March, 2020 transmission congestion of **13.52 MU** occurred in IEX on account of congestion on **7 days** only (i.e. 4th, 5th, 6th, 19th, 20th, 21st and 23rd March, 2020). Hence, One Nation One Price was observed for **24 days** in March, 2020. Whereas, in PXIL, no transaction happened during March, 2020.
- 7.13. There was no real time curtailment in IEX and PXIL in March, 2021. Further, there was no real time curtailment in IEX and PXIL in February, 2021. In March, 2020 also, there was no real time curtailment in IEX and PXIL.
- 7.14. The **top 10 sellers** on the power exchanges in **DAM** in the month of March, 2021 are **Uttar Pradesh, Madhya Pradesh, Rajasthan, Sembcorp Gayatri, Bihar, West Bengal, Orissa,**

DB Power, Delhi, Jaypee Nigrie, which constituted **59.42 %** of the market volume. [Annexure VII]

7.15. The **top 10 purchasers** on the power exchanges in **DAM** in the month of **March, 2021** are **Telangana, Gujarat, Andhra Pradesh, Maharashtra, Tamil Nadu, Uttarakhand, Uttar Pradesh, J&K, Haryana and Rajasthan**, which constituted **89.69 %** of the market volume. [Annexure VII]

7.16. The total volume of electricity purchased by Discoms/Licensees in DAM in the month of March, 2021 was **6,518.22 MU**, which constituted **99.36 %** of total volume of electricity purchased on both the power exchanges.

7.17. Similarly, the total volume of electricity purchased by Discoms/Licensees in DAM in the month of February, 2021 was **5,070.18 MU**, which constituted **99.28 %** of total volume of electricity purchased on both the power exchanges.

8. ANALYSIS OF MOVEMENT OF PRICES OBSERVED IN REAL TIME MARKET (RTM) TRANSACTIONS IN MARCH, 2021

8.1. 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 variables were the total purchase bid and 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 **0.57**. 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 March, 2021 for RTM transactions.

8.2. 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 in at **para 8.1 above**.

8.3. The Total Purchase Bid, Total Sell Bid, Daily MCP and FSV are shown in Figure-4 below:

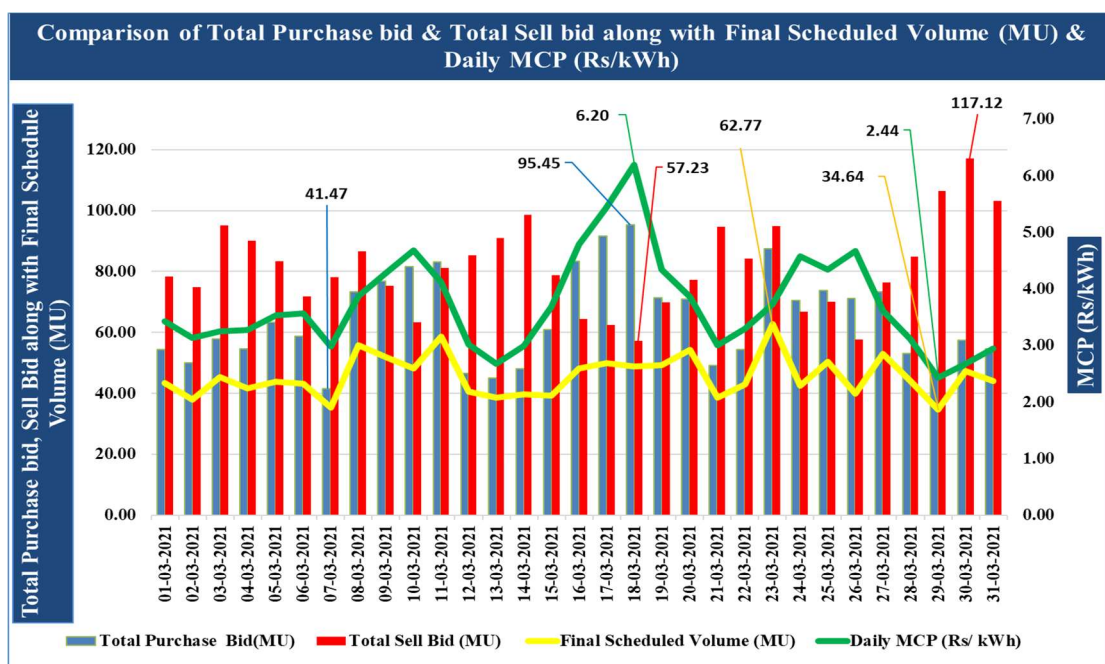
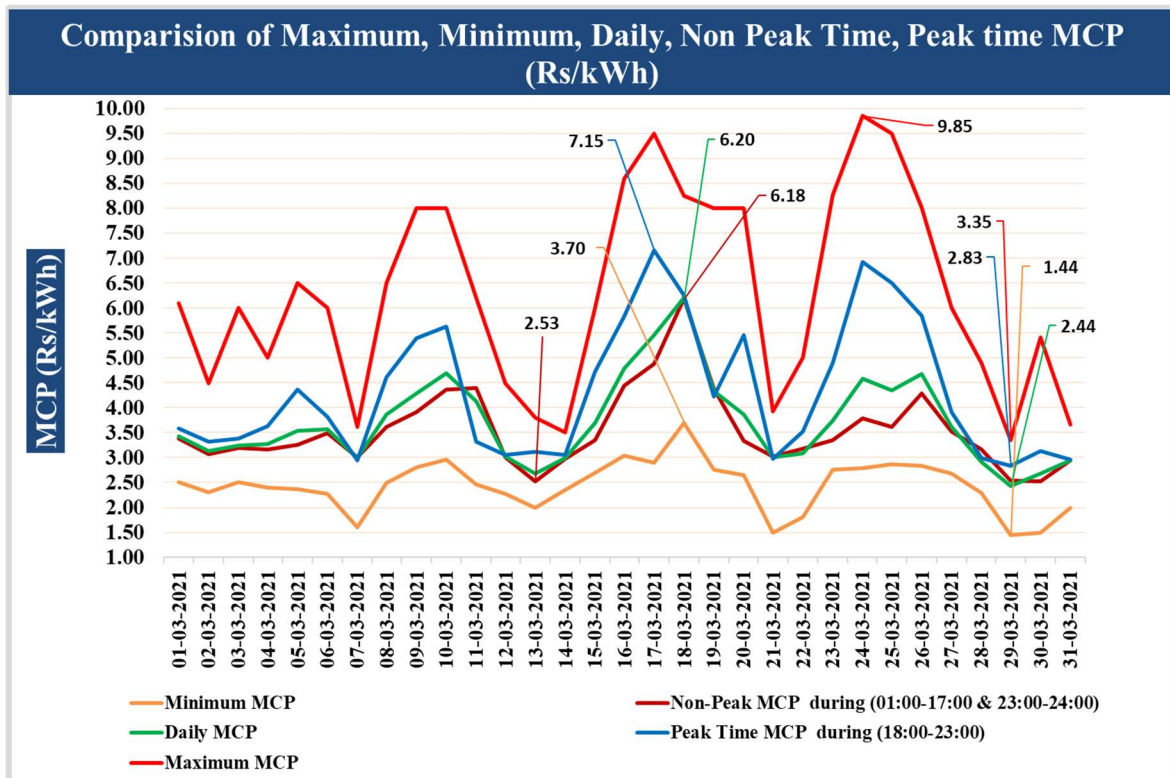


Figure-4

- 8.4. A comparison of maximum, minimum, daily, non-peak time, peak time MCP is shown in **Figure-5**. The same are also tabulated in **Annexure VIII**.



- 8.5. On **8 days** during the month, the maximum FSV occurred during the **time period 16:45-18:00 Hrs.** [Annexure X]
- 8.6. On **13 days** during the month, the maximum MCP occurred during the **time period 19:00-20:30 Hrs.** [Annexure X]
- 8.7. On **8 days** during the month, the minimum FSV occurred during the **time period 02:30-04:00 Hrs.** [Annexure X]
- 8.8. On **17 days** during the month, the minimum MCP occurred during the **time period 13:00-14:30 Hrs.** [Annexure X]
- 8.9. There was **no** real time curtailment in IEX in Real Time Market during March, 2021 and February, 2021, whereas, no transaction of electricity happened in PXIL during March, 2021 and February, 2021.
- 8.10. In the month of March, 2021, there was congestion of **7.30 MU** in transmission system in IEX in Real Time Market on account of congestion on **17 days** (i.e. 6th, 8th, 10th, 13th, 17th, 19th, 20th, 22nd to 31st March, 2021), hence, one nation one price was observed for **14 days** in IEX. Whereas, in PXIL, no transaction of electricity happened in March, 2021 in Real Time Market. Further, in the month of February, 2021, there was congestion of **0.61 MU** in transmission system in IEX in Real Time Market on account of congestion on **eleven days**

(i.e. 4th to 6th, 9th, 12th, 15th to 17th, 21st, 27th to 28th February, 2021), hence, one nation one price was observed for **17 days** in IEX. Whereas, in PXIL, no transaction of electricity happened in February, 2021 in Real Time Market.

8.11. The **top 10 sellers** on the power exchanges in **RTM** in the month of March, 2021 are **Madhya Pradesh, West Bengal, Rajasthan, DVC, Uttar Pradesh, Orissa, Delhi, MB Power, Chhattisgarh and Karnataka**, which constituted **73.98 %** of the market volume. **[Annexure XI]**

8.12. The **top 10 purchasers** on the power exchanges in **RTM** in the month of March, 2021 are **Telangana, J&K, Andhra Pradesh, Rajasthan, Orissa, Gujarat, Maharashtra, Bihar, Tamil Nadu and Uttar Pradesh**, which constituted **82.79 %** of the market volume. **[Annexure XI]**

8.13. The total volume of electricity purchased by Discoms/Licensees in RTM in the month of March, 2021 was **1,412.29 MU**, which constituted **99.88 %** of total volume of electricity purchased on both the power exchanges.

8.14. Similarly, the total volume of electricity purchased by Discoms/Licensees in RTM in the month of February, 2021 was **1,109.84 MU**, which constituted **99.23 %** of total volume of electricity purchased on both the power exchanges.

-
- 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 March, 2021 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	4,486.71	-	2.47	NA	0	NA
	August, 2020	4,484.36	14.10	2.43	2.64	0	0
	September, 2020	4,780.99	60.20	2.69	2.70	0	0
Total Quarter -II	July – September, 2020	13,752.06	74.30			0	0
Quarter-III	October, 2020	5,500.53	49.57	2.74	2.80	0.16	0
	November, 2020	4,860.46	48.62	2.73	2.87	0	0
	December, 2020	5,605.58	5.42	2.83	3.25	0	0
Total Quarter -III	October- December, 2020	15,966.57	103.61			0.16	0
Quarter-IV	January, 2021	5584.07	7.63	3.18	3.85	0	0
	February, 2021	5099.75	7.44	3.39	3.69	0	0
	March, 2021	6548.94	10.94	4.07	4.32	0	0
Total Quarter-IV	January- March, 2021	17,232.76	26.01			0	0
Total April, 2020 - March, 2021		60,391.50	241.19			0.16	0

- : No Transaction happened

NA: Not Applicable

Annexure-II**Final Scheduled Volume in Term Ahead Market (TAM) for the months of April, 2020 to March, 2021 of IEX and PXIL (Delivery and Trade date basis)**

Quarter	Months	Final Scheduled Volume (MU) on Delivery Date Basis		
		IEX	PXIL	Total
Quarter -I	April, 2020	359.94	191.30	551.24
	May, 2020	431.38	284.38	715.76
	June, 2020	100.34	74.88	175.22
Total Quarter -I	April - June, 2020	891.66	550.56	1,442.22
Quarter-II	July, 2020	62.45	28.29	90.74
	August, 2020	120.53	321.22	441.75
	September, 2020	106.64	472.44	579.08
Total Quarter -II	July – September, 2020	289.62	821.95	1,111.57
Quarter-III	October, 2020	219.16	791.06	1010.22
	November, 2020	245.41	872.60	1118.01
	December, 2020	435.72	929.73	1365.45
Total Quarter -III	October- December, 2020	900.29	2,593.39	3,493.68
Quarter-IV	January, 2021	524.08	626.10	1150.18
	February, 2021	432.24	480.38	912.62
	March, 2021	234.18	388.54	622.72
Total Quarter- IV	January- March, 2021	1190.50	1495.02	2685.52
Total April, 2020 - March, 2021		3272.07	5460.92	8732.99

Quarter	Months	Final Scheduled Volume (MU) on Trade Date Basis		
		IEX	PXIL	Total
Quarter -I	April, 2020	340.52	282.72	623.24
	May, 2020	377.67	218.35	596.02
	June, 2020	72.28	51.36	123.64
Total Quarter -I	April - June, 2020	790.47	552.43	1342.90
Quarter-II	July, 2020	60.27	117.13	177.4
	August, 2020	146.93	270.72	417.65
	September, 2020	98.30	510.42	608.72
Total Quarter -II	July – September, 2020	305.50	898.27	1203.77
Quarter-III	October, 2020	276.80	973.45	1250.25
	November, 2020	189.00	744.35	933.35
	December, 2020	371.59	924.08	1295.67
Total Quarter –III	October-December, 2020	837.39	2641.88	3479.27
Quarter-IV	January, 2021	324.31	659.13	983.44
	February, 2021	305.50	444.06	749.56
	March, 2021	332.18	353.20	685.38
Total Quarter-IV	January- March, 2021	961.99	1,456.39	2,418.38
Total April, 2020 - March, 2021		2,895.35	5,548.97	8,444.32

Top Five Entities (Buyers and Sellers) in Bilateral transactions in the month of March, 2021

(i) Top five Buyers in Bilateral transactions

Entity Name	Direct		Entity Name	Through Traders	
	(MU)	Percent		(MU)	Percent
TELANGANA	306.15	29.86%	TAMILNADU	1837.58	40.40%
MP	158.10	15.42%	Gujarat	582.23	12.80%
Jharkhand	135.05	13.17%	Himachal Pradesh	367.93	8.09%
CHATTISGARH	126.45	12.33%	MAHARASHTRA	221.61	4.87%
West Bengal	104.66	10.21%	Nepal	221.53	4.87%
Total Volume	830.42	80.99%	Total Volume	3230.86	71.02%
Total Volume in Bilateral	1025.34		Total Volume in Bilateral	4548.95	

(ii) Top five Sellers in Bilateral transactions

Entity Name	Direct		Entity Name	Through Traders	
	(MU)	Percent		(MU)	Percent
RKM POWER	302.51	26.97%	Delhi	577.05	12.96%
DVC	241.46	21.53%	Gujarat	559.73	12.57%
Adhunik Power	135.05	12.04%	Haryana	492.86	11.07%
DB Power	104.80	9.34%	Raipur	434.66	9.76%
MP	86.40	7.70%	SEIL Project-	371.45	8.34%
Total Volume	870.22	77.58%	Total Volume	2435.75	54.70%
Total Volume in Bilateral	1121.65		Total Volume in Bilateral	4452.57	

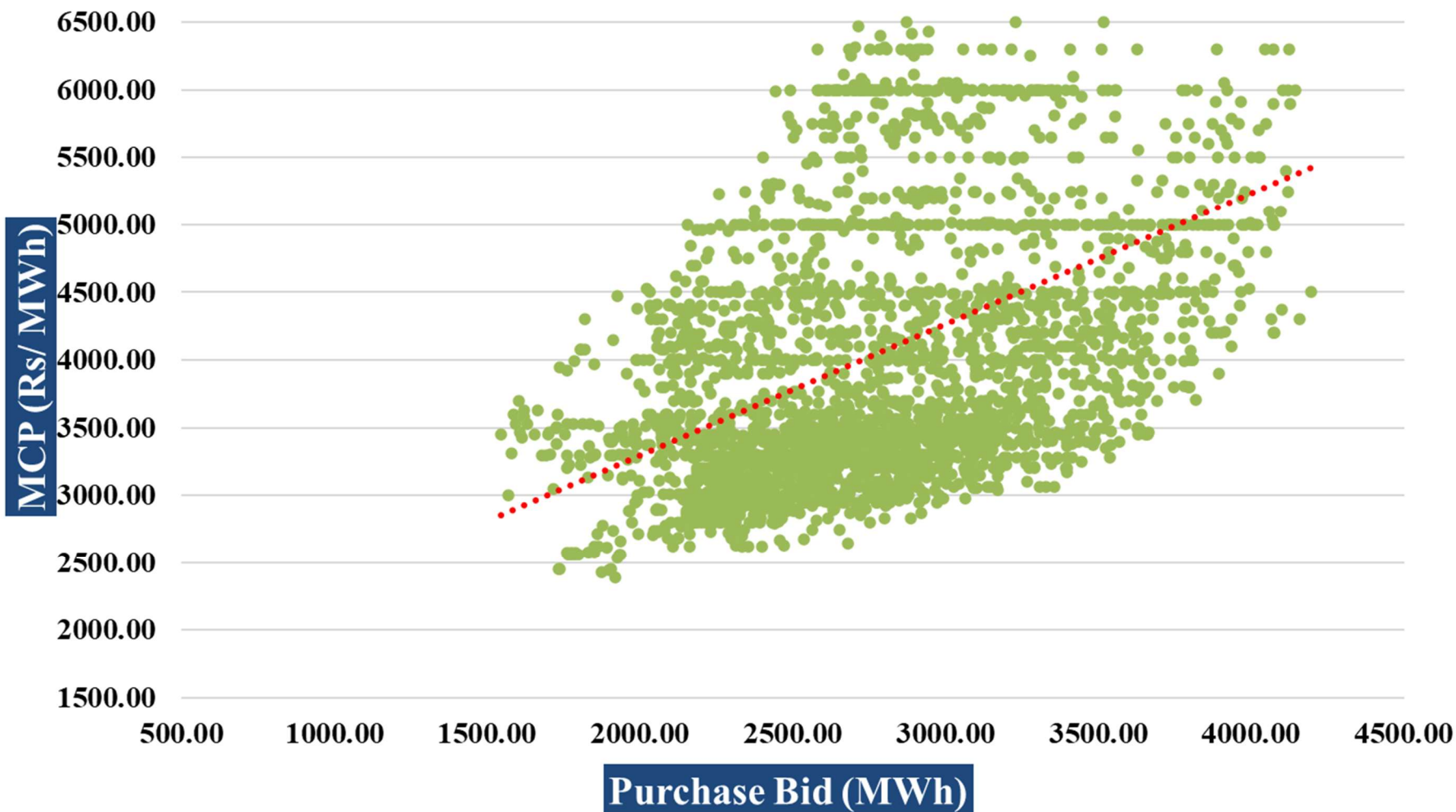
Annexure-IV**Peak Time MCP, Non-Peak MCP, Maximum MCP, Minimum MCP, Average MCP and Final Scheduled Volume (MU) in DAM**

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)
01-03-2021	3.13	4.96	3.47	5.00	3.67	7.90	2.80	4.00	185.89
02-03-2021	3.05	4.03	3.41	4.38	3.41	6.00	2.62	3.65	191.04
03-03-2021	2.96	3.71	3.50	3.96	3.34	5.23	2.62	3.49	184.14
04-03-2021	2.90	3.83	3.27	3.72	3.25	4.96	2.62	3.37	195.14
05-03-2021	3.04	4.08	3.49	4.26	3.44	5.70	2.65	3.65	209.86
06-03-2021	3.27	4.63	3.43	4.66	3.64	6.00	2.72	3.89	199.64
07-03-2021	3.33	4.59	3.45	4.46	3.66	5.75	2.85	3.86	194.22
08-03-2021	3.20	5.01	3.84	5.12	3.85	7.15	2.82	4.17	181.14
09-03-2021	3.37	4.93	3.83	4.67	3.90	6.30	2.95	4.09	197.53
10-03-2021	3.56	5.09	4.19	5.40	4.14	7.82	3.03	4.46	212.30
11-03-2021	3.47	5.21	3.97	4.65	4.05	6.30	3.03	4.20	208.45
12-03-2021	3.77	5.03	4.39	5.65	4.30	7.99	3.21	4.63	219.95
13-03-2021	3.52	4.58	3.91	4.79	3.91	6.50	3.21	4.13	225.10
14-03-2021	3.16	3.19	3.01	3.37	3.11	3.69	2.75	3.17	204.90
15-03-2021	3.20	3.68	3.85	5.00	3.56	6.58	2.84	3.92	221.06
16-03-2021	3.37	3.82	3.77	4.80	3.62	6.40	3.00	3.92	209.82
17-03-2021	3.69	4.62	4.48	5.88	4.20	8.26	3.28	4.62	200.32
18-03-2021	4.34	5.36	5.01	6.62	4.82	8.58	3.38	5.27	219.60
19-03-2021	4.17	5.27	5.53	6.44	4.94	8.98	3.36	5.31	227.22
20-03-2021	4.69	5.20	5.33	6.54	5.05	8.99	3.47	5.42	214.55
21-03-2021	3.66	3.79	3.10	3.56	3.47	4.90	2.87	3.49	203.10
22-03-2021	3.40	3.85	3.35	4.77	3.48	7.00	2.95	3.80	214.99
23-03-2021	3.25	3.91	3.44	4.62	3.47	7.10	2.87	3.76	220.65
24-03-2021	3.35	3.86	3.53	4.51	3.53	7.10	2.98	3.78	251.01
25-03-2021	3.62	4.18	4.05	5.95	3.91	8.50	3.14	4.42	240.03
26-03-2021	4.05	4.31	3.87	6.41	4.04	9.14	3.06	4.63	227.68
27-03-2021	4.23	4.60	4.39	6.85	4.37	9.87	3.06	4.99	217.06
28-03-2021	3.74	3.63	3.25	3.43	3.52	6.00	2.98	3.50	237.58
29-03-2021	3.18	2.86	2.63	3.26	2.90	3.91	2.39	2.99	194.23
30-03-2021	3.44	3.17	3.62	5.84	3.45	9.00	2.71	4.05	219.36
31-03-2021	3.32	3.34	3.21	4.03	3.28	4.40	2.80	3.47	221.38
Maximum	4.69	5.36	5.53	6.85	5.05	9.87	3.47	5.42	251.01
Minimum	2.90	2.86	2.63	3.26	2.90	3.69	2.39	2.99	181.14
Average	3.50	4.27	3.79	4.92	3.78	6.84	2.94	4.07	211.26

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 March, 2021



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

Annexure-VI**Maximum Final Schedule Volume (FSV), Minimum FSV, Maximum Market Clearing Price (MCP) and Minimum MCP 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
01-03-2021	16:15 - 16:30	2.77	19:00 - 19:15	7.90	22:30 - 22:45	1.44	13:45 - 14:00	2.80
02-03-2021	16:30 - 16:45	2.84	18:45 - 19:00	6.00	22:30 - 22:45	1.11	13:45 - 14:00	2.62
03-03-2021	15:15 - 15:30	2.55	18:45 - 19:00	5.23	21:30 - 21:45	1.25	04:00 - 04:15	2.62
04-03-2021	07:15 - 07:30	2.85	18:45 - 19:00	4.96	20:00 - 20:15	1.29	13:45 - 14:00	2.62
05-03-2021	16:45 - 17:00	2.93	18:45 - 19:00	5.70	21:15 - 21:30	1.46	13:45 - 14:00	2.65
06-03-2021	07:15 - 07:30	2.88	18:45 - 19:00	6.00	22:30 - 22:45	1.49	13:45 - 14:00	2.72
07-03-2021	07:15 - 07:30	2.87	07:15 - 07:30	5.75	22:00 - 22:15	1.37	13:45 - 14:00	2.85
08-03-2021	07:15 - 07:30	2.97	18:45 - 19:00	7.15	22:30 - 22:45	1.17	13:45 - 14:00	2.82
09-03-2021	07:15 - 07:30	3.13	19:00 - 19:15	6.30	22:00 - 22:15	1.08	13:45 - 14:00	2.95
10-03-2021	07:15 - 07:30	3.17	19:15 - 19:30	7.82	22:15 - 22:30	1.38	13:45 - 14:00	3.03
11-03-2021	07:30 - 07:45	2.96	09:15 - 09:30	6.30	22:00 - 22:15	1.44	13:45 - 14:00	3.03
12-03-2021	07:00 - 07:15	3.13	19:00 - 19:15	7.99	22:15 - 22:30	1.57	13:45 - 14:00	3.21
13-03-2021	07:30 - 07:45	3.15	17:45 - 18:00	6.50	22:30 - 22:45	1.57	03:45 - 04:00	3.21
14-03-2021	07:15 - 07:30	2.98	20:30 - 20:45	3.69	22:00 - 22:15	1.43	13:45 - 14:00	2.75
15-03-2021	16:30 - 16:45	3.10	19:15 - 19:30	6.58	22:30 - 22:45	1.61	04:00 - 04:15	2.84
16-03-2021	07:15 - 07:30	3.00	19:00 - 19:15	6.40	22:30 - 22:45	1.43	13:45 - 14:00	3.00
17-03-2021	06:45 - 07:00	2.74	19:00 - 19:15	8.26	23:00 - 23:15	1.47	03:45 - 04:00	3.28
18-03-2021	16:00 - 16:15	2.93	19:15 - 19:30	8.58	23:45 - 24:00	1.63	04:00 - 04:15	3.38
19-03-2021	07:15 - 07:30	3.09	19:00 - 19:15	8.98	22:30 - 22:45	1.79	04:00 - 04:15	3.36
20-03-2021	07:30 - 07:45	3.09	19:00 - 19:15	8.99	22:30 - 22:45	1.70	04:00 - 04:15	3.47
21-03-2021	07:15 - 07:30	3.00	06:15 - 06:30	4.90	22:45 - 23:00	1.48	14:00 - 14:15	2.87
22-03-2021	07:30 - 07:45	2.90	19:15 - 19:30	7.00	00:00 - 00:15	1.78	14:30 - 14:45	2.95
23-03-2021	16:45 - 17:00	2.91	19:15 - 19:30	7.10	22:45 - 23:00	1.48	13:45 - 14:00	2.87
24-03-2021	16:45 - 17:00	3.37	18:45 - 19:00	7.10	23:30 - 23:45	2.23	13:45 - 14:00	2.98
25-03-2021	15:15 - 15:30	2.97	19:15 - 19:30	8.50	23:45 - 24:00	1.83	14:00 - 14:15	3.14
26-03-2021	17:00 - 17:15	2.86	19:00 - 19:15	9.14	11:15 - 11:30	1.99	13:45 - 14:00	3.06
27-03-2021	15:15 - 15:30	2.86	16:45 - 17:00	9.87	17:45 - 18:00	1.89	13:45 - 14:00	3.06
28-03-2021	15:30 - 15:45	3.09	00:00 - 00:15	6.00	22:30 - 22:45	1.87	13:45 - 14:00	2.98
29-03-2021	20:15 - 20:30	2.51	21:15 - 21:30	3.91	13:30 - 13:45	1.61	10:15 - 10:30	2.39
30-03-2021	14:45 - 15:00	3.20	17:45 - 18:00	9.00	03:45 - 04:00	1.78	03:45 - 04:00	2.71
31-03-2021	14:45 - 15:00	2.94	20:00 - 20:15	4.40	03:45 - 04:00	1.67	13:45 - 14:00	2.80

MCP: Market Clearing Price (Rs/kWh)

FSV: Final Scheduled Volume (MU)

Annexure-VII**Sellers and Purchasers in Day Ahead Market (DAM) in the month of March, 2021**

S. No.	Entity Name	Sell		Entity Name	Purchase	
		(MU)	Percent (%)		(MU)	Percent (%)
1.	Uttar Pradesh	1136.47	17.32%	Telangana	1531.77	23.35%
2.	Madhya Pradesh	664.43	10.13%	Gujarat	1528.34	23.30%
3.	Rajasthan	487.62	7.43%	Andhra Pradesh	967.69	14.75%
4.	Sembcorp Gayatri	360.45	5.49%	Maharashtra	445.75	6.80%
5.	Bihar	263.86	4.02%	Tamilnadu	434.36	6.62%
6.	West Bengal	231.63	3.53%	Uttarakhand	210.67	3.21%
7.	Orissa	208.44	3.18%	Uttar Pradesh	196.83	3.00%
8.	DB Power	194.39	2.96%	J&K	191.78	2.92%
9.	Delhi	175.84	2.68%	Haryana	190.51	2.90%
10.	Jaypee Nigrie	174.72	2.66%	Rajasthan	186.35	2.84%
11.	Karnataka	165.97	2.53%	Himachal Pradesh	83.41	1.27%
12.	JITPL	165.21	2.52%	Madhya Pradesh	78.97	1.20%
13.	Jindal Power	151.29	2.31%	Dadra & Nagar Haveli	66.74	1.02%
14.	Teesta -3	133.65	2.04%	Bihar	64.96	0.99%
15.	GMR Warora	118.69	1.81%	Assam	55.09	0.84%
16.	MB Power	116.04	1.77%	Delhi	48.81	0.74%
17.	RKM Power	104.90	1.60%	Jharkhand	44.80	0.68%
18.	Thermal Powertech	104.67	1.60%	ArcelorMittal Nippon	41.67	0.64%
19.	Jindal Power Ltd. Stg-II	99.03	1.51%	Orissa	36.11	0.55%
20.	Assam	94.57	1.44%	West Bengal	32.33	0.49%
21.	Essar Power MP Ltd	93.67	1.43%	Punjab	27.34	0.42%
22.	DVC	91.73	1.40%	Karnataka	25.87	0.39%
23.	Maharashtra	65.30	1.00%	Chhatisgarh	24.24	0.37%
24.	Adhunik Power	64.14	0.98%	Kerala	15.00	0.23%
25.	Haryana	63.20	0.96%	Goa WR	12.15	0.19%
26.	Spectrum Coal	62.21	0.95%	Daman & Diu	9.22	0.14%
27.	Raipur Energen	60.09	0.92%	Meghalaya	5.22	0.08%
28.	GMR Kamalanga	59.10	0.90%	Goa SR	1.53	0.02%
29.	Raigarh Energy Ltd.	55.22	0.84%	Arunachal Pradesh	1.28	0.02%
30.	Adani Power STG2	54.35	0.83%	Chandigarh	0.83	0.01%
31.	Bongaigaon	54.26	0.83%	Tripura	0.28	0.00%
32.	IL&FS	47.93	0.73%			
33.	Maruti Clean Coal	45.55	0.69%			
34.	Telangana	45.07	0.69%			
35.	Chhatisgarh	41.51	0.63%			
36.	Kerala	36.57	0.56%			
37.	Jhabua Power	35.34	0.54%			
38.	ACBIL	34.74	0.53%			

39.	Himachal Pradesh	34.44	0.53%			
40.	Punjab	32.42	0.49%			
41.	Andhra Pradesh	27.87	0.42%			
42.	Torrent Power	26.21	0.40%			
43.	Tripura	21.78	0.33%			
44.	Gujarat	20.58	0.31%			
45.	SKS Power	20.33	0.31%			
46.	Costal Energen	18.62	0.28%			
47.	Tamilnadu	17.57	0.27%			
48.	Jharkhand	13.58	0.21%			
49.	Goa WR	13.55	0.21%			
50.	NTPL	13.04	0.20%			
51.	Karcham Wangtoo	12.82	0.20%			
52.	NLC TPS-II	10.92	0.17%			
53.	Singoli Bhagwati	10.50	0.16%			
54.	AD Hydro	10.46	0.16%			
55.	Chandigarh	9.90	0.15%			
56.	Dikchu	9.86	0.15%			
57.	BALCO 2	8.38	0.13%			
58.	Sainj HEP	7.75	0.12%			
59.	RGPP	7.65	0.12%			
60.	Ramagundam Stg-1	7.62	0.12%			
61.	TRN Energy	6.55	0.10%			
62.	Adani Power STG3	6.25	0.10%			
63.	Mizoram	5.73	0.09%			
64.	Arunachal Pradesh	5.57	0.08%			
65.	Shree Cement	4.59	0.07%			
66.	Sikkim	3.89	0.06%			
67.	Chuzachen	1.50	0.02%			
68.	Dhariwal	1.46	0.02%			
69.	Jorethang	1.14	0.02%			
70.	Dadra & Nagar Haveli	1.12	0.02%			
71.	Tashiding HEP	0.94	0.01%			
72.	Nagaland	0.79	0.01%			
73.	AGBPP	0.62	0.01%			
74.	Lanco Budhil	0.54	0.01%			
75.	Simhadri Stg-2	0.40	0.01%			
76.	AGTPP	0.37	0.01%			
77.	Farakka	0.24	0.00%			
78.	Ranganadi	0.14	0.00%			
79.	Kahalgaon	0.12	0.00%			
80.	Kameng HEP	0.09	0.00%			
81.	Pare HEP	0.06	0.00%			
82.	Doyang	0.03	0.00%			
83.	Khandong	0.02	0.00%			
84.	Auraiya RLNG Fuel	0.02	0.00%			
Total Volume of top 10		3,897.86	59.42%	Total Volume of top 10	5,884.05	89.69%
Total Volume in PXs		6,559.89		Total Volume in PXs	6,559.89	

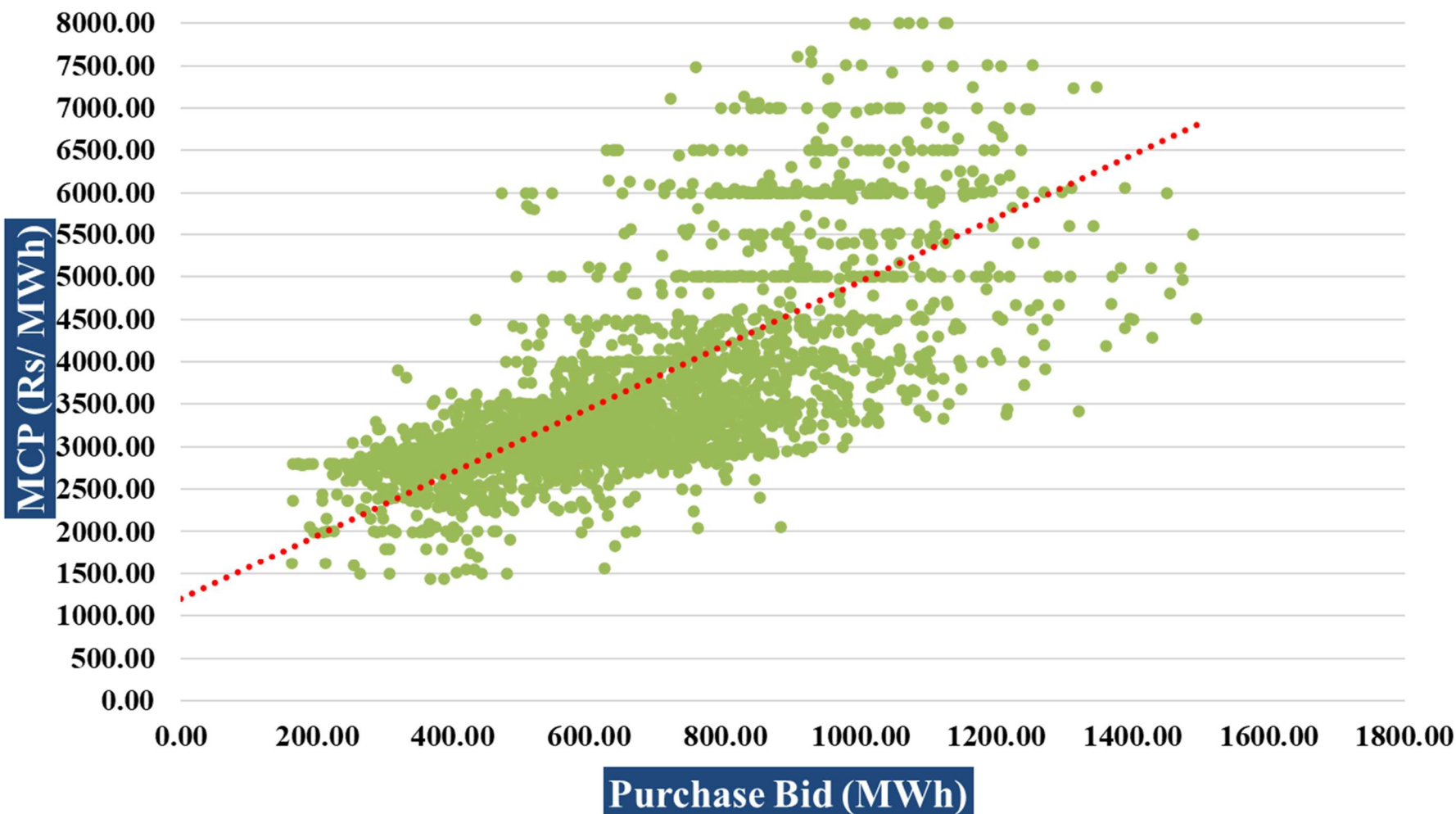
Annexure-VIII**Peak Time MCP, Non-Peak MCP, Maximum MCP, Minimum MCP, Average MCP and Final Scheduled Volume (MU) in RTM**

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)
01-03-2021	2.97	4.29	3.28	3.58	3.38	6.09	2.51	3.43	43.46
02-03-2021	2.88	3.13	3.24	3.32	3.07	4.49	2.30	3.13	37.91
03-03-2021	2.82	4.20	3.01	3.38	3.20	6.00	2.51	3.25	45.27
04-03-2021	2.87	3.59	3.21	3.63	3.16	5.00	2.40	3.28	41.76
05-03-2021	2.93	3.92	3.22	4.36	3.26	6.50	2.36	3.54	43.86
06-03-2021	2.92	4.51	3.48	3.82	3.49	6.00	2.27	3.57	43.08
07-03-2021	2.97	3.24	2.90	2.94	3.00	3.62	1.60	2.99	35.29
08-03-2021	2.98	4.61	3.69	4.62	3.62	6.50	2.50	3.87	55.89
09-03-2021	3.16	5.11	3.98	5.39	3.91	8.00	2.80	4.28	51.97
10-03-2021	3.47	6.08	4.29	5.63	4.37	8.00	2.96	4.69	48.13
11-03-2021	3.75	5.46	4.41	3.32	4.39	6.20	2.46	4.12	58.66
12-03-2021	2.84	3.28	3.02	3.05	3.01	4.49	2.28	3.02	40.53
13-03-2021	2.34	2.76	2.58	3.11	2.53	3.80	2.00	2.67	38.61
14-03-2021	3.00	3.34	2.74	3.06	2.97	3.50	2.36	2.99	39.66
15-03-2021	3.11	3.68	3.39	4.72	3.35	6.00	2.70	3.69	39.22
16-03-2021	3.61	5.27	4.80	5.83	4.44	8.58	3.04	4.79	48.13
17-03-2021	4.14	5.79	5.11	7.15	4.88	9.50	2.90	5.45	49.84
18-03-2021	5.12	7.38	6.56	6.25	6.18	8.25	3.70	6.20	48.88
19-03-2021	3.00	4.31	5.80	4.23	4.38	8.00	2.75	4.34	49.21
20-03-2021	3.18	3.62	3.32	5.46	3.33	8.00	2.65	3.86	54.33
21-03-2021	3.27	3.12	2.72	2.97	3.02	3.93	1.50	3.01	38.64
22-03-2021	2.90	2.75	3.66	3.51	3.18	5.00	1.80	3.09	43.00
23-03-2021	3.31	3.34	3.40	4.90	3.35	8.26	2.75	3.74	62.77
24-03-2021	3.39	3.62	4.30	6.92	3.79	9.85	2.79	4.58	42.56
25-03-2021	3.41	3.39	3.97	6.50	3.62	9.49	2.87	4.34	50.28
26-03-2021	4.30	4.51	4.13	5.84	4.28	8.01	2.83	4.67	39.93
27-03-2021	3.80	3.65	3.16	3.91	3.52	6.00	2.68	3.62	52.99
28-03-2021	3.32	3.10	3.04	2.99	3.16	4.90	2.29	2.91	44.00
29-03-2021	3.01	2.33	2.25	2.83	2.54	3.35	1.44	2.44	34.64
30-03-2021	2.64	2.81	2.26	3.13	2.53	5.40	1.50	2.68	47.34
31-03-2021	3.09	3.05	2.74	2.96	2.95	3.67	2.00	2.95	44.12
Maximum	5.12	7.38	6.56	7.15	6.18	9.85	3.70	6.20	62.77
Minimum	2.34	2.33	2.25	2.83	2.53	3.35	1.44	2.44	34.64
Average	3.24	3.98	3.60	4.30	3.54	6.27	2.44	3.72	45.61

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 March, 2021



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

Annexure-X**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
01-03-2021	18:15-18:30	0.78	07:15-07:30	6.09	02:30-02:45	0.18	13:45-14:00	2.51
02-03-2021	06:30-06:45	0.55	19:00-19:15	4.49	03:30-03:45	0.23	13:45-14:00	2.30
03-03-2021	17:00-17:15	0.84	07:00-07:15	6.00	01:00-01:15	0.22	13:45-14:00	2.51
04-03-2021	17:15-17:30	0.79	19:15-19:30	5.00	04:30-04:45	0.21	14:00-14:15	2.40
05-03-2021	07:45-08:00	0.75	19:00-19:15	6.50	03:00-03:15	0.15	13:45-14:00	2.36
06-03-2021	17:45-18:00	0.73	07:00-07:15	6.00	00:45-01:00	0.16	00:15-00:30	2.27
07-03-2021	11:45-12:00	0.60	10:30-10:45	3.62	00:45-01:00	0.15	22:45-23:00	1.60
08-03-2021	09:45-10:00	1.03	19:00-19:15	6.50	04:15-04:30	0.19	04:00-04:15	2.50
09-03-2021	16:00-16:15	0.93	07:45-08:00	8.00	07:15-07:30	0.24	00:45-01:00	2.80
10-03-2021	21:30-21:45	0.82	19:00-19:15	8.00	00:15-00:30	0.24	13:30-13:45	2.96
11-03-2021	11:00-11:15	0.90	09:30-09:45	6.20	22:45-23:00	0.30	23:15-23:30	2.46
12-03-2021	20:45-21:00	0.76	20:00-20:15	4.49	03:15-03:30	0.14	22:45-23:00	2.28
13-03-2021	17:15-17:30	0.82	19:45-20:00	3.80	00:15-00:30	0.15	13:45-14:00	2.00
14-03-2021	17:15-17:30	0.70	06:15-06:30	3.50	13:15-13:30	0.15	13:15-13:30	2.36
15-03-2021	12:30-12:45	0.65	18:45-19:00	6.00	02:45-03:00	0.20	13:45-14:00	2.70
16-03-2021	08:15-08:30	0.78	19:00-19:15	8.58	18:45-19:00	0.23	13:00-13:15	3.04
17-03-2021	15:30-15:45	0.84	19:30-19:45	9.50	00:30-00:45	0.32	13:15-13:30	2.90
18-03-2021	12:30-12:45	0.72	11:30-11:45	8.25	18:15-18:30	0.25	13:15-13:30	3.70
19-03-2021	08:15-08:30	0.83	12:00-12:15	8.00	03:00-03:15	0.17	23:00-23:15	2.75
20-03-2021	06:15-06:30	0.97	20:15-20:30	8.00	04:15-04:30	0.37	03:00-03:15	2.65
21-03-2021	16:45-17:00	0.57	20:00-20:15	3.93	06:15-06:30	0.26	14:45-15:00	1.50
22-03-2021	12:30-12:45	0.96	12:30-12:45	5.00	04:30-04:45	0.08	07:00-07:15	1.80
23-03-2021	23:45-24:00	1.16	19:15-19:30	8.26	12:15-12:30	0.32	13:00-13:15	2.75
24-03-2021	07:00-07:15	0.78	19:45-20:00	9.85	18:45-19:00	0.18	03:45-04:00	2.79
25-03-2021	23:45-24:00	0.94	20:30-20:45	9.49	09:30-09:45	0.28	02:45-03:00	2.87
26-03-2021	13:00-13:15	0.56	16:45-17:00	8.01	18:15-18:30	0.22	13:30-13:45	2.83
27-03-2021	17:45-18:00	0.89	00:00-00:15	6.00	00:00-00:15	0.22	14:00-14:15	2.68
28-03-2021	14:00-14:15	0.75	00:30-00:45	4.90	03:15-03:30	0.23	19:30-19:45	2.29
29-03-2021	23:15-23:30	0.67	22:15-22:30	3.35	02:30-02:45	0.14	10:30-10:45	1.44
30-03-2021	22:30-22:45	0.93	22:15-22:30	5.40	05:15-05:30	0.27	14:00-14:15	1.50
31-03-2021	16:45-17:00	0.71	23:15-23:30	3.67	15:00-15:15	0.20	13:45-14:00	2.00

MCP: Market Clearing Price (Rs/kWh)

FSV: Final Scheduled Volume (MU)

Annexure-XI**Sellers and Purchasers in Real Time Market (RTM) in the month of March, 2021**

S. No.	Entity Name	Sell		Entity Name	Purchase	
		(MU)	Percent (%)		(MU)	Percent (%)
1.	Madhya Pradesh	328.22	23.21%	Telangana	310.27	21.94%
2.	West Bengal	187.69	13.27%	J&K	223.08	15.78%
3.	Rajasthan	163.88	11.59%	Andhra Pradesh	158.05	11.18%
4.	DVC	115.79	8.19%	Rajasthan	100.94	7.14%
5.	Uttar Pradesh	68.79	4.86%	Orissa	78.10	5.52%
6.	Orissa	63.30	4.48%	Gujarat	75.95	5.37%
7.	Delhi	43.65	3.09%	Maharashtra	69.44	4.91%
8.	MB Power	25.53	1.81%	Bihar	55.82	3.95%
9.	Chhattisgarh	25.05	1.77%	Tamilnadu	51.26	3.63%
10.	Karnataka	24.18	1.71%	Uttar Pradesh	47.74	3.38%
11.	Kameng HEP	21.18	1.50%	West Bengal	34.54	2.44%
12.	Assam	20.64	1.46%	Haryana	34.04	2.41%
13.	Jindal Power Ltd. Stg-II	15.54	1.10%	Delhi	26.80	1.90%
14.	Jindal Power	14.79	1.05%	Punjab	26.30	1.86%
15.	NLC TPS-II	14.71	1.04%	Assam	23.18	1.64%
16.	Bihar	14.16	1.00%	Chhattisgarh	22.27	1.57%
17.	Jhabua Power	13.24	0.94%	Himachal Pradesh	21.92	1.55%
18.	NLC TPS-II Stg-2	12.03	0.85%	Kerala	8.50	0.60%
19.	RKM Power	11.45	0.81%	Meghalaya	7.56	0.53%
20.	Kerala	11.45	0.81%	Uttarakhand	7.20	0.51%
21.	Himachal Pradesh	10.91	0.77%	Jharkhand	6.73	0.48%
22.	Tripura	10.51	0.74%	Karnataka	5.37	0.38%
23.	Manipur	10.23	0.72%	Goa WR	3.95	0.28%
24.	BALCO 2	9.95	0.70%	Madhya Pradesh	3.55	0.25%
25.	NTPL	9.74	0.69%	Dadra & Nagar Haveli	2.30	0.16%
26.	Bongaigaon	9.46	0.67%	DVC	1.79	0.13%
27.	Maharashtra	8.95	0.63%	Manipur	1.58	0.11%
28.	Adani Power STG2	7.00	0.50%	Tripura	1.41	0.10%
29.	IL&FS	6.90	0.49%	Sikkim	1.31	0.09%
30.	GMR Warora	6.78	0.48%	Maruti Clean Coal Power	1.29	0.09%
31.	Khargone STPP	6.44	0.46%	Daman & Diu	0.96	0.07%
32.	Torrent Power	6.40	0.45%	Goa SR	0.29	0.02%
33.	Punjab	6.17	0.44%	ArcelorMittal Nippon steel	0.17	0.01%
34.	Farakka	5.51	0.39%	Jaypee Nigrie	0.15	0.01%
35.	Gujarat	5.38	0.38%	Arunachal Pradesh	0.10	0.01%
36.	NTPC Gadawara	5.25	0.37%	ACBIL	0.04	0.00%
37.	Mouda Stg-2	5.01	0.35%	Kameng HEP	0.02	0.00%
38.	Raipur Energen	4.88	0.35%			

39.	NTPC Sholapur	4.79	0.34%		
40.	Haryana	4.02	0.28%		
41.	J&K	3.93	0.28%		
42.	NTPC Kudgi	3.78	0.27%		
43.	Sasan UMPP	3.67	0.26%		
44.	AGBPP	3.60	0.25%		
45.	Barh Stg-2	3.38	0.24%		
46.	Dikchu	3.22	0.23%		
47.	Telangana	3.20	0.23%		
48.	Ramagundam Stg-1	2.47	0.17%		
49.	Sikkim	2.44	0.17%		
50.	Thermal Powertech	2.42	0.17%		
51.	Mouda Stg-1	2.30	0.16%		
52.	AGTTP	2.13	0.15%		
53.	NLC TPS-II Expn	2.12	0.15%		
54.	GMR Kamalanga	2.11	0.15%		
55.	DB Power	2.03	0.14%		
56.	NLC	1.91	0.14%		
57.	Tamilnadu	1.86	0.13%		
58.	Rihand-II	1.84	0.13%		
59.	Palatana	1.59	0.11%		
60.	Simhadri Stg-2	1.54	0.11%		
61.	SKS Power	1.53	0.11%		
62.	Maruti Clean Coal Power	1.29	0.09%		
63.	Kahalgaon-II	1.21	0.09%		
64.	Farakka Stg 3	1.20	0.09%		
65.	RGPP_L_IR	1.16	0.08%		
66.	Auraiya	0.89	0.06%		
67.	Jharkhand	0.88	0.06%		
68.	Shree Cement	0.88	0.06%		
69.	RGPP_L	0.87	0.06%		
70.	Andhra Pradesh	0.84	0.06%		
71.	Teesta -3	0.79	0.06%		
72.	BRBCL	0.74	0.05%		
73.	Darlipalli	0.73	0.05%		
74.	Kahalgaon	0.73	0.05%		
75.	ACBIL	0.72	0.05%		
76.	Talcher	0.65	0.05%		
77.	Sembcorp Gayatri	0.62	0.04%		
78.	Adhunik Power	0.59	0.04%		
79.	Spectrum Coal	0.59	0.04%		
80.	TRN Energy	0.46	0.03%		
81.	RGPP_L_Others	0.46	0.03%		
82.	Maithon Power	0.45	0.03%		
83.	Singoli Bhagwati	0.42	0.03%		
84.	Sainj HEP	0.39	0.03%		

85.	Raigarh Energy Ltd.	0.36	0.03%			
86.	Meghalaya	0.32	0.02%			
87.	Ramagundam Stg-3	0.29	0.02%			
88.	Coastal Gujrat Power	0.29	0.02%			
89.	Ranganadi	0.28	0.02%			
90.	Meenakshi Energy	0.28	0.02%			
91.	Essar Power MP Ltd	0.27	0.02%			
92.	Adani Power STG3	0.26	0.02%			
93.	Neyveli New Thermal	0.25	0.02%			
94.	Chuzachen	0.20	0.01%			
95.	Simhadri Stg-1	0.14	0.01%			
96.	Jorethang	0.13	0.01%			
97.	Karcham Wangtoo	0.11	0.01%			
98.	NSPCL Bhilai	0.10	0.01%			
99.	Arunachal Pradesh	0.10	0.01%			
100.	Doyang	0.08	0.01%			
101.	Pare HEP	0.08	0.01%			
102.	Anta	0.06	0.00%			
103.	Tashiding HEP	0.04	0.00%			
104.	Kawas_NAPM	0.04	0.00%			
105.	Khandong	0.03	0.00%			
106.	Dhariwal	0.02	0.00%			
107.	Chandigarh	0.01	0.00%			
108.	Dadra & Nagar Haveli	0.01	0.00%			
109.	Nagaland	0.01	0.00%			
	Total Volume of top 10	1046.07	73.98%	Total Volume of top 10	1,170.66	82.79%
	Total Volume in PXs	1,413.96		Total Volume in PXs	1,413.96	

Appendix-I**Analysis for change in trend of Final Scheduled Volume in DAM on 04th Saturday and 5th Monday of March, 2021 (i.e. 27th and 29th March, 2021)**

During the month of March, 2021, it is observed that on fifth Monday (i.e. 29th March, 2021), FSV showed decreasing trend in comparison to fourth Sunday (i.e. 28th March, 2021) and on fourth Sunday (i.e. 28th March, 2021), FSV showed increasing trend in comparison to fourth Saturday (i.e. 27th March, 2021). On analysis, it has been found as under:

- (i) On fifth Monday (29th March, 2021), although there was increase in purchase on power exchange by some of the States in comparison to Sunday (28th March, 2021) by **31.51 MU** [i.e. Andhra Pradesh (22.16 MU), Tamil Nadu (6.36 MU), Maharashtra (1.84 MU), Bihar (0.60 MU) and Rajasthan (0.55 MU), etc.], there was also decrease in purchase on power exchange by some of the States by **73.87 MU** [i.e. Gujarat (46.20 MU), Telangana (12.61 MU), Uttarakhand (5.83 MU), Punjab (2.80 MU), Uttar Pradesh (2.70 MU), Dadra & Nagar Haveli (2.17 MU) and Himachal Pradesh (1.56 MU) etc.]. This resulted in an overall decrease in FSV by **43.35 MU** on Monday (29th March, 2021).
- (ii) On fourth Sunday (28th March, 2021), although there was decrease in purchase on power exchange by some of the States in comparison to Saturday (27th March, 2021) by **10.25 MU** [i.e. Gujarat (4.04 MU), Bihar (2.86 MU), Telangana (1.74 MU), Tamil Nadu (1.61 MU), etc.], there was also increase in purchase on power exchange by some of the States by **26.26 MU** [i.e. Maharashtra (10.08 MU), Andhra Pradesh (6.97 MU), Uttar Pradesh (4.07 MU), Punjab (2.80 MU) and Uttarakhand (2.34 MU), etc.]. This resulted in an overall increase in FSV by **20.52 MU** on Sunday (28th March, 2021).

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. **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 MCP** is the average of MCP of all 96 Time Blocks of the day during which transaction happened.
5. **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.
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 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.
10. **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.

- 11. 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.
- 12. 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.