



**दिसंबर, 2019 की मासिक मार्केट मॉनिटरिंग रिपोर्ट**  
**Monthly Market Monitoring Report**  
**December, 2019**



**भारत सरकार/ Government of India**  
**विद्युत मंत्रालय/ Ministry of Power**  
**केन्द्रीय विद्युत प्राधिकरण/ Central Electricity Authority**  
**आर. ए. प्रभाग/ Regulatory Affairs Division**  
**मार्केट मॉनिटरिंग सेल /Market Monitoring Cell**

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## REPORT FOR MONTH: DECEMBER, 2019

### 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 in the month of December 2019 was **4,333.78 MU**. The total energy supplied in the country during the month of December, 2019 was **100,281 MU (Provisional)**. The volume of electricity transacted on the power exchanges in DAM represents 4.32% of the total energy supplied in the country. The total volume of electricity transacted in December, 2018 was **3,059 MU** which was 3.04% of the total energy supplied in the country in December, 2018 [**100,727 MU**].
- 1.2. The volume of electricity transacted on IEX and PXIL during December, 2019 are 4,333.32 MU and 0.46 MU, respectively, which means that the total volume transacted on IEX is 99.99 % of the total volume on the power exchanges. The total volume of electricity transacted during December, 2018 on IEX and PXIL was 3,058.70 MU and 0.30 MU, respectively, which means that the total volume transacted on IEX is 99.99 % of the total volume on the power exchanges.
- 1.3. The Average Market Clearing Price (MCP) on IEX during the month December, 2019 was Rs 2.93/kWh, which shows a decline of 11.21% when compared with average MCP for the month of December, 2018, which was Rs 3.30/ kWh. Similarly, on PXIL, the Average MCP during December, 2019 was Rs 2.93/kWh, which shows a decline of 39.08% when compared with average MCP for the month of December, 2018, which was Rs 4.81 kWh.

#### 2. SUMMARY OF THE MARKET CLEARING PRICE, AREA CLEARING PRICE AND SCHEDULE VOLUME IN THE POWER EXCHANGES

- 2.1. A comparison of the Minimum, Maximum and Average of daily MCP during the months of December, 2019 and December, 2018 are as given below:

MCP (Rs/kWh)	IEX			PXIL		
	December, 2019	December, 2018	% Change	December, 2019	December, 2018 <sup>©</sup>	% Change
<b>Minimum</b>	2.59	2.88	-10.07	2.89	4.81	-39.92
<b>Maximum</b>	3.25	3.91	-16.88	2.96	4.81	-38.46
<b>Average</b>	2.93	3.30	-11.21	2.93	4.81	-39.09

©: Transaction happened only on 4<sup>th</sup> December, 2018 during the month December, 2018

**Table: 1**

- 2.2. The maximum Area Clearing Price (ACP) in IEX was observed in southern region at **Rs 6.12 /kWh** during the time block 18:30-18:45 on 18<sup>th</sup> December, 2019. Whereas the MCP for this time-block was **Rs 4.60 kWh**, as there was transmission congestion in southern region. However, the Daily MCP on pan India basis on 18<sup>th</sup> December, 2019 was **Rs 3.07/ kWh**.
- 2.3. The minimum ACP observed in IEX among all 13 regions was **Rs 1.70 /kWh** during the time block 04:00-04:15 on 23<sup>rd</sup> **December, 2019**. As there was no congestion in transmission system, the MCP for this time-block was also **Rs 1.70/ kWh**. However, the Daily MCP on pan India basis on 23<sup>rd</sup> December, 2019 was **Rs 3.01/ kWh**.
- 2.4. A comparison of the Minimum and Maximum ACP during the months of December, 2019 and December, 2018 in IEX are as given below:

ACP (Rs/kWh)	IEX		
	December, 2019	December, 2018	% Change
<b>Minimum</b>	6.12	7.53	-18.73
<b>Maximum</b>	1.70	1.75	-2.86

**Table: 2**

- 2.5. A comparison of the Minimum, Maximum and Average Scheduled Volume of electricity transactions happened on IEX and PXIL for a day during the months of December, 2019 and December, 2018 are as given below:

Scheduled Volume (MU)	IEX			PXIL		
	December, 2019	December, 2018	% Change	December, 2019	December, 2018 <sup>ψ</sup>	% Change
<b>Minimum</b>	109.72	83.11	32.02	0.020	0.300	-93.33
<b>Maximum</b>	167.76	110.82	51.38	0.046	0.300	-84.67
<b>Average</b>	139.78	98.67	41.66	0.035	0.300	-88.33

ψ: Transaction happened only on 4<sup>th</sup> December, 2018 during the month December, 2018

**Table: 3**

- 2.6. The total volume of electricity transacted on both the power exchanges during the period, April to December, 2019, was 36,106.47 MU. The same was 40,708.19 MU during the same period of 2018, which shows a decline of 11.30%. A comparison of Final Scheduled Volume and the Average MCP for the period of April to December, 2019 of IEX and PXIL are given at **Annexure-I**.

### **3. TERM AHEAD MARKET (TAM)**

- 3.1. The total volume of electricity transacted on both the power exchanges in term ahead market in December, 2019 was **514.02 MU** (i.e. 371.14 MU on IEX and 142.88 MU on

PXIL), which means that the total volume transacted on IEX was 72.20% and PXIL was 27.80% of total volume in term ahead market in both the power exchanges. The total volume of electricity transacted during December, 2018 in term ahead market on both the power exchanges was **137.68 MU** (i.e. 96.31 MU on IEX and 41.37 MU on PXIL), which means that the total volume on IEX was 69.95% and PXIL was 30.05% of the total volume on the power exchanges. This shows an increase of 273.34% in TAM during December, 2019 as compared to December, 2018.

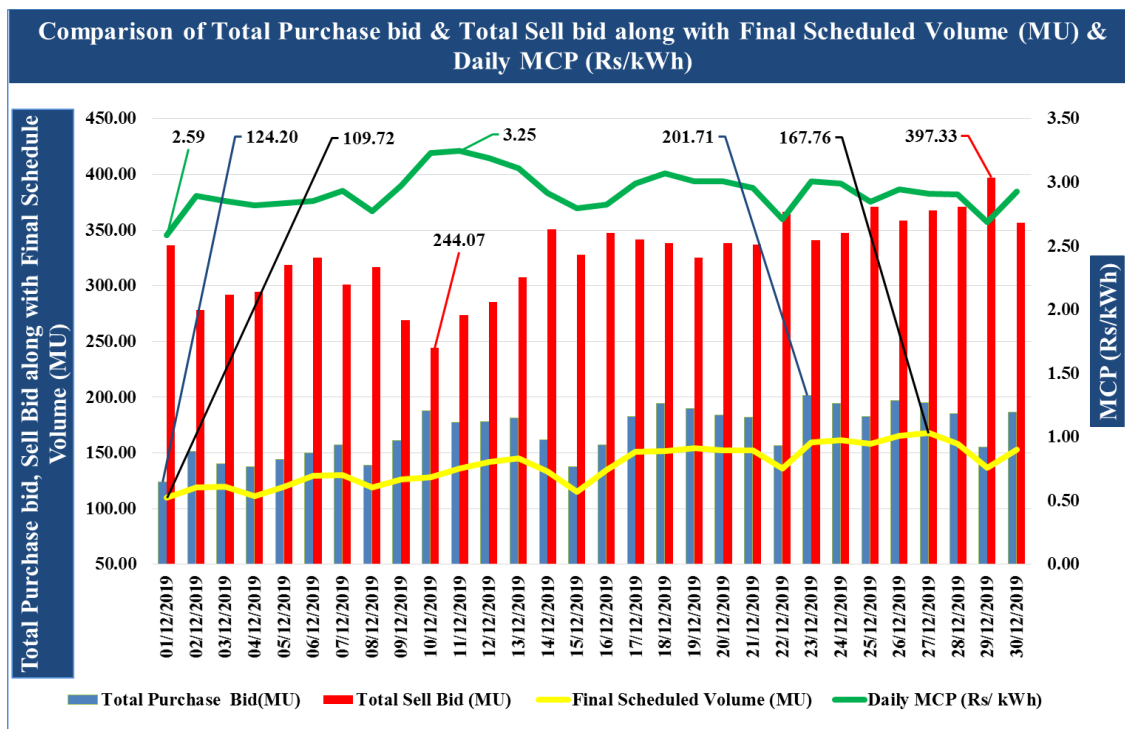
- 3.1 With respect to the total energy supplied during the month of December, 2019 in the country the volume of electricity traded on the power exchanges in TAM represents **0.51%** of the total energy supplied. The same was **0.14%** in December, 2018.
- 3.2 The Total Volume of electricity transacted on both the power exchanges during the period, April to December, 2019 in TAM, was 6,422.16 MU. The same was 2,281.37 MU during the same period of 2018, which shows an increase of 181.50%. A comparison of Final Scheduled Volume for the months of April to December, 2019 of IEX and PXIL are given at **Annexure-II**.

#### **4. ANALYSIS OF MOVEMENT OF PRICES OBSERVED IN DAM DURING DECEMBER, 2019**

**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 December month. The observations made are as under:**

- 4.1 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.
- 4.2 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 only the total purchase bid and total sell bid. All the other variables were found to be insignificant. The regression analysis further revealed that the maximum elasticity of the Daily MCP was with respect to total purchase bid and elasticity figure was around 0.35. 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 December, 2019.

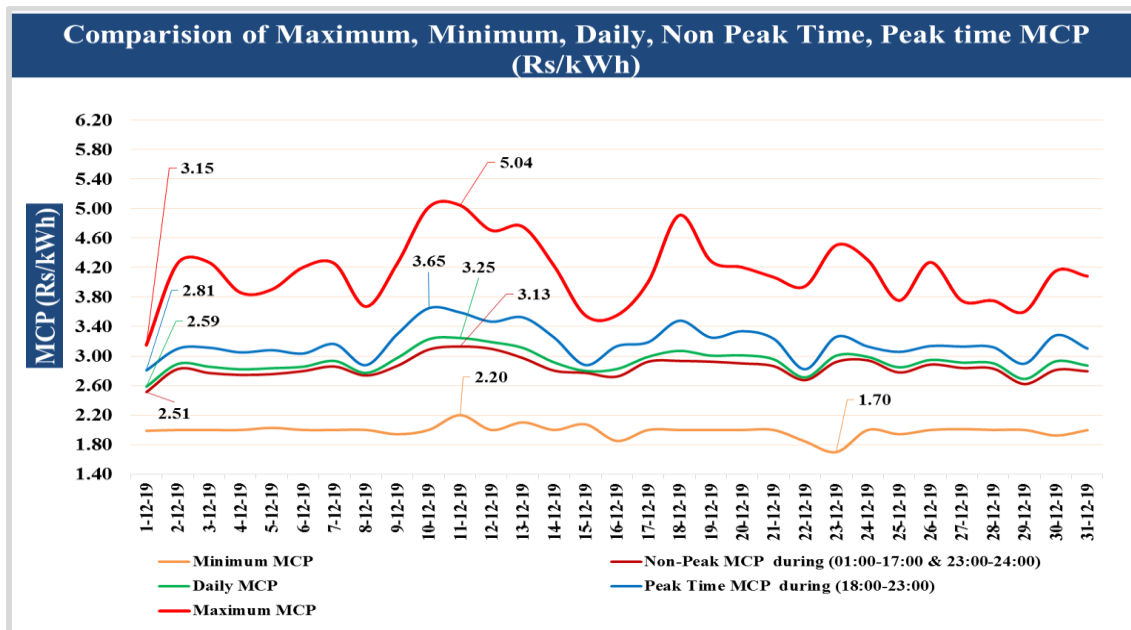
4.3 The same relationship is visible from the analysis carried out from the plot in **Figure 1**.



**Figure -1**

4.4 The Final Scheduled Volume (MU) and the Daily MCP (Rs/ kWh) invariably showed decreasing trend on Sundays as the demand of electricity in the country is less compared to other days of week [**Figure 1**].

4.5 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**

4.6 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 4.1 and 4.2 above.

- 4.7 On **28 days** during the month, the maximum FSV occurred during the **time period 07:15 to 10:00 [Annexure V]**.
- 4.8 On **22 days** during the month, the minimum FSV occurred during the **time period 22:00 – 23:45 [Annexure V]**.
- 4.9 On **30 days** during the month, the minimum Daily MCP occurred during the **time period 03:15 – 04:15 [Annexure V]**.
- 4.10 On **30 days** during the month, the maximum Daily MCP occurred during the **time periods 07:45-10:00 and 18:00-18:30 each [Annexure V]**.
- 4.11 The maximum demand met during the month of December, 2019 in the country occurred on **26<sup>th</sup> December 2019 at 170.49 GW**, which is 4.81% more as compared to maximum demand during the month of December, 2018 i.e. **[162.66 GW on 28<sup>th</sup> December, 2018]**.
- 4.12 One nation One Price was observed for **21 days** during the month, as there was transmission congestion for 10 days (i.e. 13<sup>th</sup>, 17<sup>th</sup>, 18<sup>th</sup>, 19<sup>th</sup>, 20<sup>th</sup>, 21<sup>st</sup>, 23<sup>rd</sup>, 24<sup>th</sup>, 25<sup>th</sup> and 26<sup>th</sup> December, 2019) during the month. Whereas in the month of December, 2018 transmission congestion happened on 8 days, so one nation one price was observed for **23 days** in December, 2018.
- 4.13 There was no real time curtailment on IEX and PXIL in December, 2019. Also, there was no real time curtailment in December, 2018.
- 4.14 The cumulative real time curtailment during the period April to December, 2019 was **12.68 MU** in DAM. During months of April to December, 2018 the real time curtailment was **72.84 MU** in DAM. The month wise real time curtailment is given at **Annexure-I**
- 4.15 The **top 10 sellers** on the power exchanges during the month are: **Madhya Pradesh, Sembcorp Gayatri, Rajasthan, Jaypee Nigrie, Odisha, Assam, GMR Chhattisgarh, Bihar, Chhattisgarh, Teesta-3** which constituted **53.34%** of the market share. **[Annexure VI]**
- 4.16 The **top 10 purchaser** on the power exchanges during the month are: **Telangana, Maharashtra, Tamil Nadu, Gujarat, J&K, Delhi, Rajasthan, Andhra Pradesh, Haryana, Dadra & Nagar Haveli** which constituted **77.28%** of the market share. **[Annexure VI]**

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**Annexure-I**

**Final Scheduled Volume, Average MCP and Real-Time Curtailment in Day Ahead Market (DAM) for the months of April to December, 2019 of IEX and PXIL**

Months	Final Scheduled Volume (MU)		Market Clearing Price (Rs/kWh)		Real Time Curtailment (MU)	
	IEX	PXIL	IEX	PXIL	IEX	PXIL
<b>April, 2019</b>	4,005.41	31.43	3.22	3.75	3.090	-
<b>May, 2019</b>	3,772.47	1.17	3.34	3.45	0.217	-
<b>June, 2019</b>	4,206.68	0.42	3.32	3.48	4.910	-
<b>July, 2019</b>	4,800.37	0.35	3.38	3.21	0.039	-
<b>August, 2019</b>	4,674.88	0.35	3.32	3.10	4.420	-
<b>September, 2019</b>	3,487.57	1.03	2.77	2.85	-	-
<b>October, 2019</b>	3,391.49	9.81	2.71	2.62	-	-
<b>November, 2019</b>	3,388.84	0.42	2.85	3.01	-	-
<b>December, 2019</b>	4,333.32	0.46	2.93	2.93	-	-
<b>Total</b>	<b>36,061.03</b>	<b>45.44</b>			<b>12.676</b>	<b>-</b>

- There was no real time curtailment.

**[Source: IEX and PXIL]**



**Annexure-II**

**Final Scheduled Volume in Term Ahead Market (TAM) for the months of April to December, 2019 of IEX and PXIL**

Months	Final Scheduled Volume (MU)		
	IEX	PXIL	Total
<b>April, 2019</b>	334.13	293.47	627.6
<b>May, 2019</b>	326.72	122.10	448.82
<b>June, 2019</b>	368.84	139.22	508.06
<b>July, 2019</b>	523.59	224.35	747.94
<b>August, 2019</b>	808.07	555.51	1,363.58
<b>September, 2019</b>	354.33	390.45	744.78
<b>October, 2019</b>	430.16	447.21	877.37
<b>November, 2019</b>	458.83	131.16	589.99
<b>December, 2019</b>	371.14	142.88	514.02
<b>Total</b>	<b>3,975.81</b>	<b>2,446.35</b>	<b>6,422.16</b>

**[Source: IEX and PXIL]**

**Annexure-III**

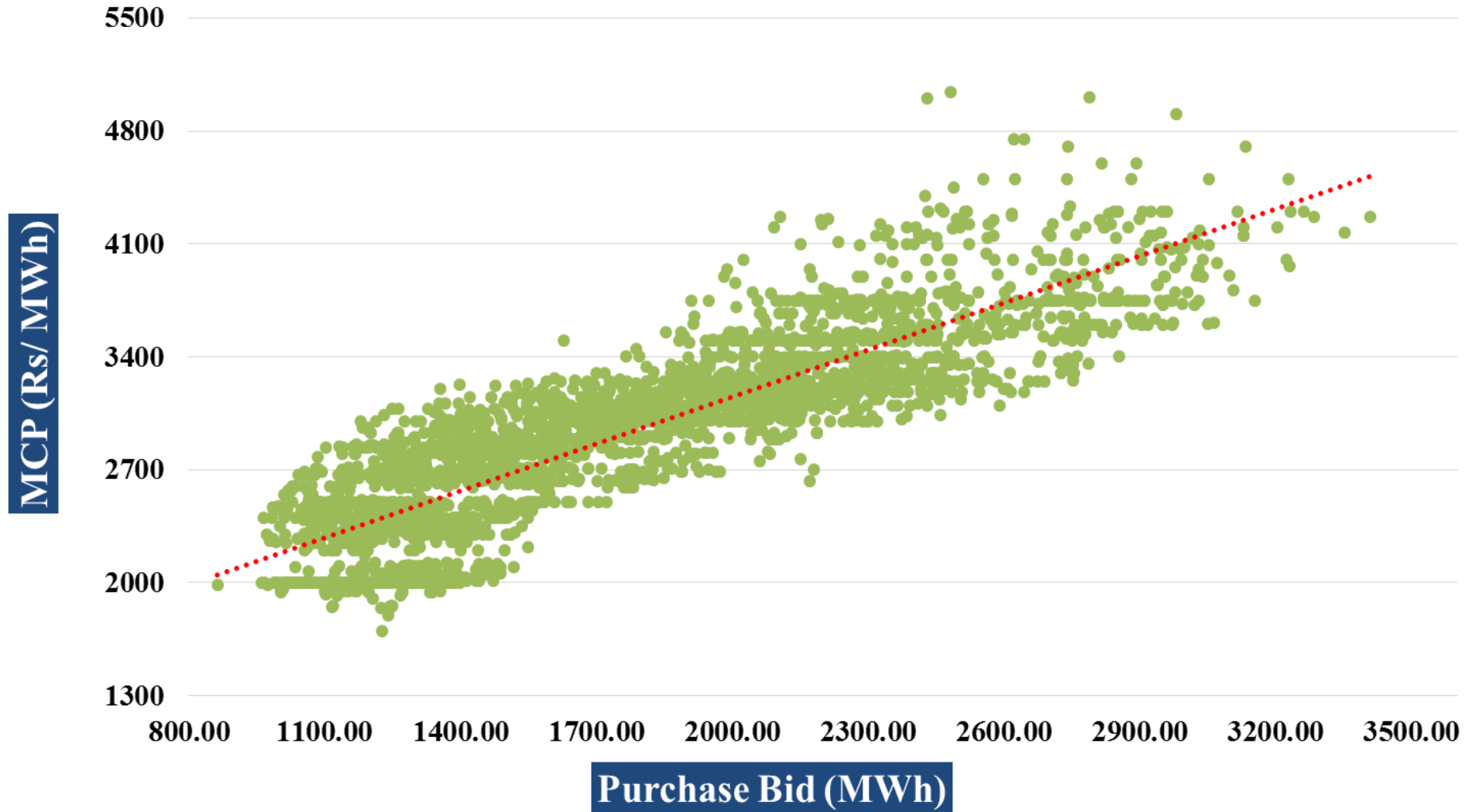
Date	MCP during (01:00-06:00, 23:00-24:00)	MCP during (07:00-10:00)	MCP during (11:00-17:00)	Peak Time MCP during (18:00-23:00)	Non-Peak MCP during (01:00-17:00 & 23:00-24:00)	Maximum MCP	Minimum MCP	Average MCP	Final Scheduled Volume (MU)
01/12/2019	2.18	2.82	2.67	2.81	2.51	3.15	1.99	2.59	109.72
02/12/2019	2.26	3.19	3.19	3.10	2.83	4.26	2.00	2.89	119.19
03/12/2019	2.17	3.19	3.14	3.11	2.77	4.27	2.00	2.86	119.52
04/12/2019	2.27	3.24	2.93	3.05	2.75	3.86	2.00	2.82	111.10
05/12/2019	2.35	3.24	2.88	3.08	2.76	3.90	2.03	2.84	120.05
06/12/2019	2.38	3.29	2.93	3.04	2.80	4.20	2.00	2.86	129.83
07/12/2019	2.31	3.45	3.07	3.16	2.86	4.25	2.00	2.93	129.87
08/12/2019	2.29	3.30	2.86	2.88	2.74	3.67	2.00	2.77	119.00
09/12/2019	2.14	3.43	3.27	3.30	2.87	4.25	1.94	2.98	126.35
10/12/2019	2.47	3.79	3.31	3.65	3.09	5.01	2.00	3.23	128.02
11/12/2019	2.50	3.91	3.32	3.59	3.13	5.04	2.20	3.25	135.98
12/12/2019	2.44	4.12	3.17	3.47	3.10	4.70	2.00	3.19	142.03
13/12/2019	2.34	3.71	3.18	3.52	2.97	4.75	2.10	3.11	145.17
14/12/2019	2.33	3.29	3.00	3.25	2.80	4.22	2.00	2.91	133.65
15/12/2019	2.37	3.18	2.94	2.88	2.77	3.55	2.08	2.80	114.96
16/12/2019	2.09	3.24	3.06	3.13	2.72	3.55	1.85	2.83	135.05
17/12/2019	2.32	3.47	3.22	3.19	2.93	4.00	2.00	2.99	150.78
18/12/2019	2.21	3.67	3.24	3.48	2.93	4.90	2.00	3.07	151.89
19/12/2019	2.24	3.74	3.14	3.25	2.92	4.29	2.00	3.01	154.11
20/12/2019	2.24	3.71	3.09	3.34	2.90	4.20	2.00	3.01	152.49
21/12/2019	2.22	3.63	3.07	3.23	2.86	4.07	2.00	2.96	152.14
22/12/2019	2.14	3.33	2.84	2.82	2.68	3.94	1.84	2.71	136.09
23/12/2019	2.10	3.77	3.26	3.26	2.92	4.50	1.70	3.01	159.25
24/12/2019	2.15	3.67	3.31	3.13	2.94	4.30	2.00	2.99	161.62
25/12/2019	2.09	3.36	3.14	3.06	2.78	3.75	1.94	2.85	158.35
26/12/2019	2.16	3.50	3.26	3.14	2.89	4.27	2.00	2.95	165.46
27/12/2019	2.23	3.31	3.18	3.13	2.84	3.75	2.01	2.91	167.76
28/12/2019	2.15	3.28	3.26	3.12	2.83	3.75	2.00	2.90	158.10
29/12/2019	2.05	3.14	2.90	2.90	2.62	3.60	2.00	2.69	136.94
30/12/2019	2.06	3.39	3.24	3.28	2.81	4.15	1.92	2.93	153.17
31/12/2019	2.10	3.30	3.20	3.10	2.79	4.08	2.00	2.87	155.69
<b>Maximum</b>	<b>2.50</b>	<b>4.12</b>	<b>3.32</b>	<b>3.65</b>	<b>3.13</b>	<b>5.04</b>	<b>2.20</b>	<b>3.25</b>	<b>167.76</b>
<b>Minimum</b>	<b>2.05</b>	<b>2.82</b>	<b>2.67</b>	<b>2.81</b>	<b>2.51</b>	<b>3.15</b>	<b>1.70</b>	<b>2.59</b>	<b>109.72</b>
<b>Average</b>	<b>2.24</b>	<b>3.44</b>	<b>3.11</b>	<b>3.18</b>	<b>2.84</b>	<b>4.13</b>	<b>1.99</b>	<b>2.93</b>	<b>139.78</b>

MCP: Market Clearing Price (Rs/kWh)

FSV: Final Scheduled Volume (MU)

[Source: IEX]

# Comparison of MCP w.r.t. Purchase Bid for 2,976 Time Blocks during the month of December, 2019



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

Annexure-V

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
01/12/2019	09:15 - 09:30	1.47	18:15 - 18:30	3.15	05:00 - 05:15	0.78	05:00 - 05:15	1.99
02/12/2019	18:15 - 18:30	1.71	18:00 - 18:15	4.26	23:30 - 23:45	0.80	04:00 - 04:15	2.00
03/12/2019	18:00 - 18:15	1.71	18:00 - 18:15	4.27	23:15 - 23:30	0.82	03:30 - 03:45	2.00
04/12/2019	09:45 - 10:00	1.57	18:15 - 18:30	3.86	22:30 - 22:45	0.85	04:00 - 04:15	2.00
05/12/2019	09:45 - 10:00	1.76	18:15 - 18:30	3.90	05:15 - 05:30	0.86	04:00 - 04:15	2.03
06/12/2019	09:45 - 10:00	1.95	18:15 - 18:30	4.20	05:15 - 05:30	0.84	04:00 - 04:15	2.00
07/12/2019	09:45 - 10:00	1.85	18:15 - 18:30	4.25	05:00 - 05:15	0.86	03:45 - 04:00	2.00
08/12/2019	07:15 - 07:30	1.76	07:45 - 08:00	3.67	23:00 - 23:15	0.86	04:00 - 04:15	2.00
09/12/2019	07:15 - 07:30	1.81	18:15 - 18:30	4.25	23:30 - 23:45	0.78	04:00 - 04:15	1.94
10/12/2019	07:45 - 08:00	2.03	18:15 - 18:30	5.01	04:45 - 05:00	0.76	04:00 - 04:15	2.00
11/12/2019	07:30 - 07:45	2.30	18:15 - 18:30	5.04	03:00 - 03:15	0.81	03:15 - 03:30	2.20
12/12/2019	07:15 - 07:30	2.30	07:45 - 08:00	4.70	04:30 - 04:45	0.94	04:00 - 04:15	2.00
13/12/2019	07:45 - 08:00	2.44	18:15 - 18:30	4.75	04:45 - 05:00	0.95	04:00 - 04:15	2.10
14/12/2019	07:30 - 07:45	2.05	18:15 - 18:30	4.22	22:45 - 23:00	0.98	04:00 - 04:15	2.00
15/12/2019	08:15 - 08:30	1.70	08:15 - 08:30	3.55	22:15 - 22:30	0.86	03:45 - 04:00	2.08
16/12/2019	07:15 - 07:30	1.84	18:15 - 18:30	3.55	23:30 - 23:45	0.97	04:00 - 04:15	1.85
17/12/2019	08:00 - 08:15	2.33	18:15 - 18:30	4.00	23:15 - 23:30	1.07	03:15 - 03:30	2.00
18/12/2019	09:45 - 10:00	2.21	18:15 - 18:30	4.90	22:30 - 22:45	0.96	04:00 - 04:15	2.00
19/12/2019	08:00 - 08:15	2.36	08:45 - 09:00	4.29	22:30 - 22:45	1.03	04:00 - 04:15	2.00
20/12/2019	07:45 - 08:00	2.47	09:00 - 09:15	4.20	22:00 - 22:15	1.04	04:00 - 04:15	2.00
21/12/2019	07:45 - 08:00	2.38	08:15 - 08:30	4.07	22:00 - 22:15	0.99	04:00 - 04:15	2.00
22/12/2019	08:30 - 08:45	2.21	08:45 - 09:00	3.94	22:00 - 22:15	0.92	04:00 - 04:15	1.84
23/12/2019	07:45 - 08:00	2.45	08:45 - 09:00	4.50	23:15 - 23:30	1.15	04:00 - 04:15	1.70
24/12/2019	08:00 - 08:15	2.41	09:15 - 09:30	4.30	23:15 - 23:30	1.19	04:00 - 04:15	2.00
25/12/2019	08:15 - 08:30	2.29	09:15 - 09:30	3.75	22:45 - 23:00	1.13	03:45 - 04:00	1.94
26/12/2019	09:15 - 09:30	2.53	09:15 - 09:30	4.27	23:30 - 23:45	1.09	03:45 - 04:00	2.00
27/12/2019	11:00 - 11:15	2.39	07:45 - 08:00	3.75	23:00 - 23:15	1.10	04:00 - 04:15	2.01
28/12/2019	08:30 - 08:45	2.41	10:45 - 11:00	3.75	23:00 - 23:15	0.98	03:45 - 04:00	2.00
29/12/2019	08:45 - 09:00	2.08	08:30 - 08:45	3.60	23:00 - 23:15	0.94	04:00 - 04:15	2.00
30/12/2019	09:30 - 09:45	2.42	09:30 - 09:45	4.15	05:15 - 05:30	0.90	03:15 - 03:30	1.92
31/12/2019	09:00 - 09:15	2.39	09:45 - 10:00	4.08	22:45 - 23:00	1.05	04:00 - 04:15	2.00

[Source: IEX]

MCP: Market Clearing Price (Rs/kWh)

FSV: Final Scheduled Volume (MU)

**Top Ten Entity (Sellers and Purchaser) during the month of December, 2019**

Entity Name	Sell		Entity Name	Purchase	
	(MU)	Percent		(MU)	Percent (%)
<b>Madhya Pradesh</b>	448.23	10.34%	<b>Telangana</b>	683.78	15.78%
<b>Sembcorp Gayatri</b>	329.82	7.61%	<b>Maharashtra</b>	483.65	11.16%
<b>Rajasthan</b>	251.16	5.80%	<b>Tamil Nadu</b>	433.30	10.00%
<b>Jaypee Nigrie</b>	226.71	5.23%	<b>Gujarat</b>	417.50	9.63%
<b>Odisha</b>	202.91	4.68%	<b>J&amp;K</b>	361.88	8.35%
<b>Assam</b>	202.50	4.67%	<b>Delhi</b>	319.40	7.37%
<b>GMR Chhattisgarh</b>	176.36	4.07%	<b>Rajasthan</b>	254.45	5.87%
<b>Bihar</b>	170.93	3.94%	<b>Andhra Pradesh</b>	147.53	3.40%
<b>Chhattisgarh</b>	159.71	3.69%	<b>Haryana</b>	143.29	3.31%
<b>Teesta -3</b>	143.18	3.30%	<b>Dadra &amp; Nagar Haveli</b>	104.54	2.41%
<b>Total</b>	<b>2311.52</b>	<b>53.34%</b>	<b>Total</b>	<b>3349.32</b>	<b>77.28%</b>
<b>Total Volume in</b>	<b>4333.78</b>		<b>Total Volume in PXs</b>	<b>4333.78</b>	

[Source: POSOCO]

## Definitions/ Terminologies used in the Report

**Area Clearing Price (ACP)** is area clearing price in each time block in each of 13 bid areas. 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.

1. **Daily MCP** is the average of MCP of all 96 Time Blocks of the day during which transaction happened.
2. **Average MCP** is the average of daily MCP of the days during the month on which transaction happened.
3. **Average Scheduled Volume** is the average of scheduled volume of the days during the month on 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. **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.
8. **Term Ahead Market (TAM)** on the power exchanges are 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, Intraday, Day Ahead Contingency, Daily and Weekly.