



जून, 2021 मासिक मार्केट मॉनिटरिंग रिपोर्ट

Monthly Market Monitoring Report

June, 2021



भारत सरकार/ Government of India

विद्युत मंत्रालय/ Ministry of Power

केन्द्रीय विद्युत प्राधिकरण/ Central Electricity Authority

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REPORT FOR MONTH: JUNE, 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 June, 2021 was **4,336.08 MU**. The total energy supplied in the country during the month of June, 2021 was 1,14,483 MU. Thus, the volume of electricity transacted on both the power exchanges in DAM during June, 2021 was 3.79 % of the total energy supplied in the country. The total volume of electricity transacted in DAM on both the power exchanges during May, 2021 was **4,367.20 MU** which was 4.01% of the total energy supplied [1,08,809 MU] in the country during May, 2021. Similarly, the total volume of electricity transacted in DAM on both the power exchanges during June, 2020 was **4,189.37 MU** which was 3.99 % of the total energy supplied [1,05,086] in the country during June, 2020.
 - 1.2. The volume of electricity transacted on IEX and PXIL during June, 2021 were **4,314.17 MU and 21.91 MU**, respectively, which means that the total volume transacted on IEX was **99.49%** of the total volume on power exchanges. The volume of electricity transacted on IEX and PXIL during May, 2021 were **4,363.88 MU and 3.32 MU**, respectively, which means that the total volume transacted on IEX was **99.92 %** of the total volume on power exchanges. Also, the volume of electricity transacted on IEX and PXIL during June, 2020, were **4,174.34 MU and 15.03 MU**, respectively.
 - 1.3. The DAM Volume in IEX for June, 2021 is inclusive of Cross Border Transactions of Electricity of **42.89 MU (purchase only)** happened with Nepal during June, 2021, whereas, the same was **118.73 MU** during May, 2021. The day-wise details of Cross Border Electricity Trade happened during June, 2021 are given in **Annexure-XII**.
 - 1.4. The Average Market Clearing Price (MCP) on IEX during the month of June, 2021 was **Rs 3.06/kWh**, which shows an increase of **8.13%** and an increase of **30.21%** when compared with average MCP's for the month of May, 2021 and June, 2020, which were **Rs 2.83/kWh and Rs 2.35/kWh**, respectively. On PXIL, the average MCP during the month of June, 2021 was **Rs 3.35/kWh**, which shows an increase of **9.48%** and an increase of **29.34%** when compared with average MCP's for the month of May, 2021 and June, 2020, which were **Rs 3.06/kWh and Rs 2.59/kWh**, respectively.
- #### 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 June, 2021 with that of May, 2021 and June, 2020 is given in Table- 1A & 1B:

(a) June, 2021 vis- a -vis May, 2021

Daily MCP (Rs/kWh)	IEX			PXIL		
	June, 2021	May, 2021	% Change	June, 2021	May, 2021	% Change
Minimum	2.04	2.26	-9.73	2.36	2.53	-6.72
Maximum	4.65	3.29	41.34	4.77	3.63	31.40
Average	3.06	2.83	8.13	3.35	3.06	9.48

Table: 1A

(b) June, 2021 vis- a –vis June, 2020

Daily MCP (Rs/kWh)	IEX			PXIL		
	June, 2021	June, 2020	% Change	June, 2021	June, 2020	% Change
Minimum	2.04	1.65	23.64	2.36	2.24	5.36
Maximum	4.65	2.74	69.71	4.77	2.93	62.80
Average	3.06	2.35	30.21	3.35	2.59	29.34

Table: 1B

2.2. The maximum Area Clearing Price (ACP) of **Rs 9.67/kWh** in IEX was observed in all 13 regions during the time block **22:30-22:45 Hrs** on 30th June, 2021. As there was no congestion in transmission system, the MCP for this time-block was also **Rs 9.67/kWh**. However, the Daily MCP in IEX on pan India basis on 30th June, 2021 was **Rs 4.65/kWh**. Whereas, in PXIL, the maximum ACP of **Rs 6.99/kWh** was observed in all 13 regions during the consecutive 8 time blocks from **00:00-00:15 Hrs to 01:45-02:00 Hrs** on 28th June, 2021. and again for the same time blocks i.e 8 consecutive time blocks from **00:00-00:15 Hrs to 01:45-02:00 Hrs** on 29th June, 2021 and again for the same time blocks i.e 8 consecutive time blocks from **00:00-00:15 Hrs to 01:45-02:00 Hrs** and 12 consecutive time blocks from **21:00-21:15 Hrs to 23:45-24:00 Hrs** on 30th June, 2021 during June, 2021. As there was no congestion in transmission system, the MCP for above time blocks were also **Rs 6.99 /kWh**. However, the Daily MCP in PXIL on 28th, 29th and 30th June, 2021 were **Rs 4.02/kWh , Rs 4.66/kWh and Rs 4.34/kWh** respectively.

2.3. The minimum ACP of **Rs 0.60/kWh** in IEX was observed in all 13 regions during the time block **12:45-13:00 Hrs** on 13th June, 2021. As there was no congestion in transmission system, the MCP for this time-block was also **Rs 0.60/kWh**. However, the

Daily MCP in IEX on pan India basis on 13th June, 2021 was **Rs 2.04/kWh**. Whereas, in PXIL, the minimum ACP of **Rs 2.00/kWh** was observed in all 13 regions during the consecutive 6 time blocks from **13:30-13:45 Hrs to 14:45-15:00 Hrs** and again for the 3 consecutive time blocks from **18:00-18:15 Hrs to 18:30-18:45 Hrs** on 12th June, 2021 and again in all 13 regions during the consecutive 21 time blocks from **13:30-13:45 Hrs to 18:30-18:45 Hrs** on 13th June, 2021. and again for the consecutive 5 time block from **07:45-08:00 Hrs to 08:45-09:00 Hrs** on 18th June, 2021 during June, 2021. As no congestion was there in transmission system, the MCP for the above time blocks were also **Rs 2.00/kWh**. However, the Daily MCP in PXIL on 12th June, 2021, 13th June, 2021 and 18th June, 2021 were **Rs 2.53/kWh, Rs 2.38/kWh and Rs 2.73/kWh** respectively.

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

(a) June, 2021 vis- a -vis May, 2021

ACP (Rs/kWh)	IEX			PXIL		
	June, 2021	May, 2021	% Change	June, 2021	May, 2021	% Change
Minimum	0.60	1.50	-60.00	2.00	2.53	-20.95
Maximum	9.67	7.10	36.20	6.99	4.41	58.50

Table: 2A

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

ACP (Rs/kWh)	IEX			PXIL		
	June, 2021	June, 2020	% Change	June, 2021	June, 2020	% Change
Minimum	0.60	1.00	-40.00	2.00	1.80	11.11
Maximum	9.67	4.11	135.28	6.99	3.50	99.71

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

(a) June, 2021 vis- a- vis May, 2021

Final Scheduled Volume (MU)	IEX			PXIL		
	June, 2021	May, 2021	% Change	June, 2021	May, 2021	% Change
Minimum	111.91	102.60	9.07	0.11	0.01	1000.00
Maximum	172.97	167.32	3.38	2.07	0.79	162.03
Average	143.81	140.77	2.16	0.78	0.28	178.57

Table: 3A

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

Final Scheduled Volume (MU)	IEX			PXIL		
	June, 2021	June, 2020	% Change	June, 2021	June, 2020	% Change
Minimum	111.91	86.28	29.71	0.11	0.05	120.00
Maximum	172.97	173.52	-0.32	2.07	3.08	-32.79
Average	143.81	139.14	3.36	0.78	1.16	-32.76

Table: 3B**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 June, 2021 was **981.16 MU**, out of which, **622.42 MU** (63.44 %) was transacted on IEX and **358.74 MU** (36.56 %) 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 May, 2021 was **769.66 MU**, out of which, **425.63 MU** (55.30%) was transacted on IEX and **344.03 MU** (44.70 %) was transacted on PXIL.
- 3.3.** Similarly, total volume of electricity transacted during June, 2020 in Term Ahead Market on trade date basis in both the power exchanges was **123.64 MU**, out of which, **72.28 MU** (58.46%) was transacted on IEX and **51.36 MU** (41.54%) was transacted on PXIL.
- 3.4.** With respect to the total energy supplied during the month of June, 2021 in the country, the volume of electricity traded on the power exchanges in TAM on trade date basis represents **0.86%** of the total energy supplied. The same was **0.71 %** in May, 2021 and **0.12 %** in June, 2020.
- 3.5.** In the month of June, 2021, there was a transmission congestion in IEX of **3.01 MU** in Day Ahead Contingency Contract, **7.50 MU** in Daily/Anyday Contract and **1.25 MU** in Intraday contract, whereas in PXIL, there was a transmission congestion of **1.63 MU** in Intraday contract and **10.45 MU** in Daily/Anyday contract during the month of June, 2021.
- 3.6.** The comparison of total volume of electricity transacted on both the power exchanges in Term Ahead Market (TAM) during June, 2021 with May, 2021 and June, 2020 is given in Table- 4A&4B:

(a) June, 2021 vis- a- vis May, 2021 (on trade Date Basis)

Contract Type	IEX			PXIL		
	June, 2021	May, 2021	% Change	June, 2021	May, 2021	% Change
Intra Day (MU)	16.00	2.65	503.77	80.00	68.68	16.48
Day Ahead Contingency(MU)	325.92	129.41	151.85	-	-	NA
Daily/ Any Day (MU)	280.50	293.57	-4.45	278.74	275.35	1.23
Weekly (MU)	-	-	NA	-	-	NA

- : No Transaction happened

NA: Not Applicable

Table: 4A

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

Contract Type	IEX			PXIL		
	June, 2021	June, 2020	% Change	June, 2021	June, 2020	% Change
Intra Day (MU)	16.00	6.39	150.39	80.00	17.05	369.21
Day Ahead Contingency (MU)	325.92	7.69	4,138.23	-	-	NA
Daily/ Any Day (MU)	280.50	58.20	381.96	278.74	34.31	712.42
Weekly (MU)	-	-	NA	-	-	NA

-: No transaction happened

NA: Not Applicable

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

- 3.7.** The total volume of electricity transacted on both the power exchanges in Term Ahead Market on delivery date basis in June, 2021 was **953.57 MU**, out of which, **640.91 MU** (67.21 %) was transacted on IEX and **312.66 MU** (32.79%) was transacted on PXIL.
- 3.8.** The total volume of electricity transacted on both the power exchanges in Term Ahead Market on delivery date basis in May, 2021 was **801.98 MU**, out of which, **382.62 MU** (47.71%) was transacted on IEX and **419.36 MU** (52.29%) was transacted on PXIL.
- 3.9.** Similarly, total volume of electricity transacted during June, 2020 in Term Ahead Market on delivery date basis in both the power exchanges was **175.22 MU**, out of which, **100.34 MU** (57.27%) was transacted on IEX and **74.88 MU** (42.73%) was transacted on PXIL.
- 3.10.** With respect to the total energy supplied during the month of June, 2021 in the country, the volume of electricity traded on the power exchanges in TAM on delivery date basis represents **0.83 %** of the total energy supplied. The same was **0.74 %** in May, 2021 and **0.17%** in June, 2020.
- 3.11.** In the month of June, 2021, there was real time curtailment in IEX of **5.62 MU** in Daily/ Anyday contract, whereas in PXIL, there was real time curtailment of **1.63 MU** in Intraday contract and **5.12 MU** in Daily/Anyday Contract during June, 2021.
- 3.12.** The comparison of total volume of electricity transacted in both the power exchanges in Term Ahead Market (TAM) on delivery date basis during June, 2021 with May, 2021 and June, 2020 is given in Table – 4C&4D:

(a) June, 2021 vis- a- vis May, 2021 (on Delivery Date Basis)

Contract Type	IEX			PXIL		
	June, 2021	May, 2021	% Change	June, 2021	May, 2021	% Change
Intra Day (MU)	16.00	2.65	503.77	72.03	69.18	4.12
Day Ahead Contingency(MU)	316.43	122.90	157.47	-	-	NA
Daily/ Any Day (MU)	308.48	257.07	20.00	240.63	350.18	-31.28
Weekly (MU)	-	-	NA	-	-	NA

- : No transaction happened

NA: Not Applicable

Table: 4C

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

Contract Type	IEX			PXIL		
	June, 2021	June, 2020	% Change	June, 2021	June, 2020	% Change
Intra Day (MU)	16.00	6.39	150.39	72.03	17.24	317.81
Day Ahead Contingency MU)	316.43	5.51	5,642.83	-	-	NA
Daily/ Any Day (MU)	308.48	63.24	387.79	240.63	57.64	317.47
Weekly (MU)	-	25.20	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 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) and Area Clearing Prices (ACP) in Real Time Market during the month of June, 2021 as compared with May, 2021 and June, 2020 are as given in table 5A, 5B & 5C:

(i) Final Scheduled Volume:

Exchange	Period	Final Scheduled Volume (MU)			
		Total	Minimum	Maximum	Average
IEX	June, 2021	1,725.70	44.84	79.96	57.52
	May, 2021	1,436.28	26.62	74.33	46.33
	Change % (Month over Month)	20.15	68.44	7.57	24.15
	June, 2020	515.47	3.42	36.09	17.18
	Change % (Year over Year)	234.78	1,211.11	121.56	234.81
PXIL	June, 2021	-	-	-	-
	May, 2021	-	-	-	-
	Change % (Month over Month)	NA	NA	NA	NA
	June, 2020	1.86	0.01	0.90	0.23
	Change % (Year over Year)	NA	NA	NA	NA

Table-5A

(ii) Daily Market Clearing Price (MCP):

Exchange	Period	Prices		
		Daily MCP (Rs/kWh)		
		Minimum	Maximum	Average
IEX	June, 2021	1.60	5.85	3.02
	May, 2021	1.71	3.56	2.53
	Change % (Month over Month)	-6.43	64.33	19.37
	June, 2020	1.56	3.03	2.22
	Change % (Year over Year)	2.56	93.07	36.04
PXIL	June, 2021	-	-	-
	May, 2021	-	-	-
	Change % (Month over Month)	NA	NA	NA
	June, 2020	2.25	2.91	2.59
	Change % (Year over Year)	NA	NA	NA

Table-5B

(iii) Area Clearing Price (ACP):

Exchange	Period	ACP (Rs/kWh)	
		Minimum	Maximum
IEX	June, 2021	0.49	13.00
	May, 2021	0.50	6.01
	Change % (Month over Month)	-2.00	116.31
	June, 2020	0.02	10.00
	Change % (Year over Year)	2,350.00	30.00
PXIL	June, 2021	-	-
	May, 2021	-	-
	Change % (Month over Month)	NA	NA
	June, 2020	1.88	4.00
	Change % (Year over Year)	NA	NA

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 whereas, in PXIL, GTAM (Non-Solar) was started w.e.f. 24th March, 2021 and GTAM (Solar) w.e.f. June, 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 June, 2021 on trade date basis and delivery date basis has basis 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 & PXIL during June, 2021 and its comparison with May, 2021 has been shown in Table 6A & 6B below.

(i) Final Scheduled Volume:

Exchange	Solar Energy Contract	Period	Final Scheduled Volume (MU)			
			Total	Minimum	Maximum	Average
IEX	Day Ahead Contingency	June, 2021	138.39	1.33	10.41	4.61
		May, 2021	160.75	2.09	8.99	5.19
		%Change	-13.91	-36.36	15.80	-11.18

Table-6A(continued)						
IEX	Intraday	June, 2021	1.87	0.05	0.25	0.07
		May, 2021	2.18	0.01	1.65	0.27
		%Change	-14.22	400.00	-84.85	-74.07
	Daily/ Anyday	June, 2021	8.80	0.45	5.00	1.47
		May, 2021	10.70	0.42	7.00	2.68
		%Change	-17.76	7.14	-28.57	-45.15
	Weekly	June, 2021	8.67	0.28	3.57	1.73
		May, 2021	19.97	2.05	4.20	3.33
		%Change	-56.58	-86.34	-15.00	-48.05
PXIL	Day Ahead Contingency	June, 2021	-			
		May, 2021	-			
	Intraday	June, 2021	1.86	0.84	1.02	0.93
		May, 2021	-	-	-	-
		% Change	NA	NA	NA	NA
	Daily/ Anyday	June, 2021	10.70	0.42	1.53	0.97
		May, 2021	-	-	-	-
		% Change	NA	NA	NA	NA
	Weekly	June, 2021	-			
		May, 2021	-			

-: No transaction happened

NA: Not Applicable

Table-6A

(ii) Daily Market Clearing Price (MCP):

Exchange	Solar Energy Contract	Period	Prices(Rs/kWh)		
			Minimum	Maximum	Average
IEX	Day Ahead Contingency	June, 2021	3.04	3.89	3.24
		May, 2021	3.05	3.50	3.24
		% Change	-0.33	11.14	0.00
	Intraday	June, 2021	3.00	3.09	3.01
		May, 2021	3.00	3.70	3.43
		%Change	0.00	-16.49	-12.24
	Daily/Anyday	June, 2021	3.20	4.10	3.50
		May, 2021	3.12	3.40	3.28
		%Change	2.56	20.59	6.71
	Weekly	June, 2021	3.30	3.80	3.43
		May, 2021	3.20	3.65	3.34
		%Change	3.12	4.11	2.69
PXIL	Day Ahead Contingency	June, 2021	-		
		May, 2021	-		
	Intraday	June, 2021	3.10	3.10	3.10
		May, 2021	-	-	-
		% Change	NA	NA	NA
	Daily/ Anyday	June, 2021	3.09	3.30	3.14
		May, 2021	-	-	-
		% Change	NA	NA	NA
	Weekly	June, 2021	-		
		May, 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 & PXIL during June, 2021 and its comparison with May, 2021 has been shown in Table 6C & 6D below.

(i) Final Scheduled Volume:

Exchange	Solar Energy Contract	Period	Final Scheduled Volume (MU)			
			Total	Minimum	Maximum	Average
IEX	Day Ahead Contingency	June, 2021	141.42	1.33	10.41	4.71
		May, 2021	155.78	1.12	8.99	5.03
		% Change	-9.22	18.75	15.80	-6.36
	Intraday	June, 2021	1.87	0.05	0.25	0.07
		May, 2021	2.18	0.01	1.65	0.27
		%Change	-14.22	400.00	-84.85	-74.07
	Daily/Anyday	June, 2021	2.59	0.08	0.45	0.18
		May, 2021	10.82	0.06	1.40	0.68
		%Change	-76.06	33.33	-67.86	-73.53
	Weekly	June, 2021	13.42	0.04	0.99	0.45
		May, 2021	15.74	0.24	1.00	0.54
		%Change	-14.74	-83.33	-1.00	-16.67
PXIL	Day Ahead Contingency	June, 2021	-			
		May, 2021	-			
	Intraday	June, 2021	1.86	0.84	1.02	0.93
		May, 2021	-	-	-	-
		%Change	NA	NA	NA	NA
	Daily/Anyday	June, 2021	10.70	0.42	1.53	0.97
		May, 2021	-	-	-	-
		%Change	NA	NA	NA	NA
	Weekly	June, 2021	-			
		May, 2021	-			

∴ No transaction happened

NA: Not Applicable

Table-6C

(ii) Daily Market Clearing Price (MCP):

Exchange	Solar Energy Contract	Period	Prices(Rs/kW)		
			Minimum	Maximum	Average
IEX	Day Ahead Contingency	June, 2021	3.04	3.89	3.24
		May, 2021	3.05	3.50	3.24
		% Change	-0.33	11.14	0.00
	Intraday	June, 2021	3.00	3.09	3.01
		May, 2021	3.00	3.70	3.43
		%Change	0.00	-16.49	-12.24
	Daily/Anyday	June, 2021	3.20	3.50	3.38
		May, 2021	3.21	4.35	3.44
		%Change	-0.31	-19.54	-1.74
	Weekly	June, 2021	3.24	3.80	3.37
		May, 2021	3.20	4.00	3.53
		%Change	1.25	-5.00	-4.53

Table-6D(continued)					
PXIL	Day Ahead Contingency	June, 2021	-		
		May, 2021	-		
	Intraday	June, 2021	3.10	3.10	3.10
		May, 2021	-	-	-
		%Change	NA	NA	NA
	Daily/Anyday	June, 2021	3.09	3.30	3.14
		May, 2021	-	-	-
		%Change	NA	NA	NA
	Weekly	June, 2021	-		
		May, 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 on both the power exchanges in non-Solar Energy Segment in GTAM in Day Ahead Contingency, Intraday, Daily/ Anyday and Weekly contracts during June, 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 & PXIL during June, 2021 on trade date basis and its comparison with May, 2021 has been shown in Table 6E & 6F below.

(i) Final Scheduled Volume:

Exchange	Non- Solar Energy Contract	Period	Final Scheduled Volume (MU)			
			Total	Minimum	Maximum	Average
IEX	Day Ahead Contingency	June, 2021	231.37	2.55	19.84	7.71
		May, 2021	147.89	1.01	12.42	4.77
		%Change	56.45	152.48	59.74	61.64
	Intraday	June, 2021	8.30	0.14	3.95	0.92
		May, 2021	9.92	0.16	4.16	1.42
		%Change	-16.33	-12.50	-5.05	-35.21
	Daily/ Anyday	June, 2021	5.59	0.55	3.36	1.86
		May, 2021	4.22	0.96	3.26	2.11
		%Change	32.46	-42.71	3.07	-11.85
	Weekly	June, 2021	8.85	1.40	6.05	2.95
		May, 2021	1.51	0.67	0.84	0.76
		%Change	486.09	108.96	620.24	288.16
PXIL	Day Ahead Contingency	June, 2021	-			
		May, 2021	-			
	Intraday	June, 2021	0.40	0.40	0.40	0.40
		May, 2021	-	-	-	-
		% Change	NA	NA	NA	NA
	Daily/ Anyday	June, 2021	15.43	0.14	0.89	0.53
		May, 2021	0.60	0.07	0.12	0.09
		% Change	2,471.67	100.00	641.67	488.89
	Weekly	June, 2021	-			
		May, 2021	-			

-: No transaction happened

NA: Not Applicable

Table-6E

(ii) Daily Market Clearing Price (MCP):

Exchange	Non- Solar Energy Contract	Period	Prices(Rs/kWh)		
			Minimum	Maximum	Average
IEX	Day Ahead Contingency	June, 2021	3.45	6.26	4.17
		May, 2021	3.42	4.50	3.88
		% Change	0.88	39.11	7.47
	Intraday	June, 2021	3.60	6.00	4.64
		May, 2021	3.83	5.04	4.44
		%Change	-6.01	19.05	4.50
	Daily/Anyday	June, 2021	3.80	4.10	3.90
		May, 2021	3.70	4.00	3.85
		%Change	2.70	2.50	1.30
	Weekly	June, 2021	3.80	4.50	4.22
		May, 2021	3.40	3.45	3.43
		%Change	11.76	30.43	23.03
PXIL	Day Ahead Contingency	June, 2021	-		
		May, 2021	-		
	Intraday	June, 2021	4.32	4.32	4.32
		May, 2021	-	-	-
		% Change	NA	NA	NA
	Daily/ Anyday	June, 2021	3.40	4.40	3.77
		May, 2021	3.00	4.00	3.47
		% Change	13.33	10.00	8.65
	Weekly	June, 2021	-		
		May, 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 & PXIL during June, 2021 and its comparison with May, 2021 has been shown in Table 6G & 6H below.

(i) Final Scheduled Volume:

Exchange	Non- Solar Energy Contract	Period	Final Scheduled Volume (MU)			
			Total	Minimum	Maximum	Average
IEX	Day Ahead Contingency	June, 2021	227.99	2.55	19.84	7.60
		May, 2021	148.76	1.01	12.42	4.80
		% Change	53.26	152.48	59.74	58.33
	Intraday	June, 2021	8.30	0.14	3.95	0.92
		May, 2021	9.92	0.16	4.16	1.42
		%Change	-16.33	-12.50	-5.05	-35.21
	Daily/Anyday	June, 2021	9.36	0.12	0.58	0.39
		May, 2021	0.26	0.26	0.26	0.26
		%Change	3500.00	-53.85	123.08	50.00
	Weekly	June, 2021	8.85	0.20	0.86	0.42
		May, 2021	1.51	0.10	0.12	0.11
		%Change	486.09	100.00	616.67	281.82

Table-6G(continued)						
PXIL	Day Ahead Contingency	June, 2021	-			
		May, 2021	-			
	Intraday	June, 2021	0.40	0.40	0.40	0.40
		May, 2021	-	-	-	-
		%Change	NA	NA	NA	NA
	Daily/Anyday	June, 2021	14.54	0.14	0.89	0.52
		May, 2021	0.60	0.07	0.12	0.09
		%Change	2,323.33	100.00	641.67	477.78
	Weekly	June, 2021	-			
		May, 2021	-			

-: No transaction happened

NA: Not Applicable

Table-6G

(ii) Daily Market Clearing Price (MCP):

Exchange	Non- Solar Energy Contract	Period	Prices(Rs/kW)		
			Minimum	Maximum	Average
IEX	Day Ahead Contingency	June, 2021	3.45	6.26	4.17
		May, 2021	3.42	4.54	3.88
		% Change	0.88	37.89	7.47
	Intraday	June, 2021	3.60	6.00	4.64
		May, 2021	3.83	5.04	4.44
		%Change	-6.01	19.05	4.50
	Daily/Anyday	June, 2021	3.70	4.10	3.84
		May, 2021	3.70	3.70	3.70
		%Change	0.00	10.81	3.78
	Weekly	June, 2021	3.80	4.50	4.22
		May, 2021	3.40	3.45	3.43
		%Change	11.76	30.43	23.03
PXIL	Day Ahead Contingency	June, 2021	-		
		May, 2021	-		
	Intraday	June, 2021	4.32	4.32	4.32
		May, 2021	-	-	-
		%Change	NA	NA	NA
	Daily/Anyday	June, 2021	3.40	4.20	3.75
		May, 2021	3.00	4.00	3.47
		%Change	13.33	5.00	8.07
	Weekly	June, 2021	-		
		May, 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 June, 2021 for buy and sell were **7,179.44 MU** and **7,177.99 MU** respectively. The total buy volume of electricity transacted in bilateral market through direct transactions and traders in the month of June, 2021 were **1,507.78 MU** and **5,671.66 MU** respectively. Similarly, the total sell volume of electricity transacted in bilateral market through direct transactions and traders in the month of June, 2021 were **1,551.82 MU** and **5,626.17 MU** respectively. The details of Bilateral buy and sell Transactions of Electricity happened during June, 2021 have been shown in Tables Below:

Volume (MU)	Buy		Total Buy (MU)	Sell		Total Sell (MU)
	Direct	Traders		Direct	Traders	
Total	1507.78	5,671.66	7,179.44	1551.82	5626.17	7,177.99
Maximum	320.54	1139.15	-	517.18	713.08	-
Minimum	0.03	0.02	-	0.37	0.04	-

Table -7A

The region-wise maximum/ minimum volume of electricity for buy and sell happened bilaterally during June, 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	237.96	911.44	292.15	1032.93	954.91	3472.66	22.75	245.24	0.00	9.39
Maximum	121.83	269.75	116.18	834.24	320.54	1139.15	11.71	241.90	0.00	8.02
Minimum	6.02	4.53	0.37	0.02	6.81	0.17	0.03	3.34	0.00	0.19

(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	275.92	915.31	868.59	2551.60	245.01	963.66	162.31	1046.48	0.00	149.12
Maximum	138.97	438.48	517.18	713.08	139.56	533.17	132.17	306.36	0.00	66.58
Minimum	15.12	0.30	5.40	0.65	6.81	1.79	0.37	0.04	0.00	0.55

Table -7C

- 6.1.** The **top 5 buyers** on bilateral transaction through direct transactions in the month of June, 2021 were **Punjab, Haryana, Uttar Pradesh, Jharkhand and Madhya Pradesh**, which constituted **74.32%** of the market volume. Whereas **top 5 buyers** on bilateral transaction through traders in the month of June, 2021 were **Punjab, Delhi, Gujarat, Haryana and Uttar Pradesh**, which constituted **73.58 %** of the market volume. [Annexure III]
- 6.2.** The **top 5 sellers** on bilateral transaction through direct transactions in the month of June, 2021 were **Madhya Pradesh, Rajasthan, DVC, SEIL Project-2 and Adhunik Power**, which constituted **67.65%** of the market volume. Whereas **top 5 sellers** on bilateral transaction through traders in the month of June, 2021 were **Raipur Energen, Himachal Pradesh, JITPL, JP NIGRIE_JNSTPP and Karnataka**, which constituted **41.41%** of the market volume. [Annexure III]

- 6.3. Deviation Import and Export Volume** - The total volume of Deviation observed in the month of June, 2021 were **2233.51 MU** in import and **2165.84 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 June, 2021 is shown in **Figure 1**:

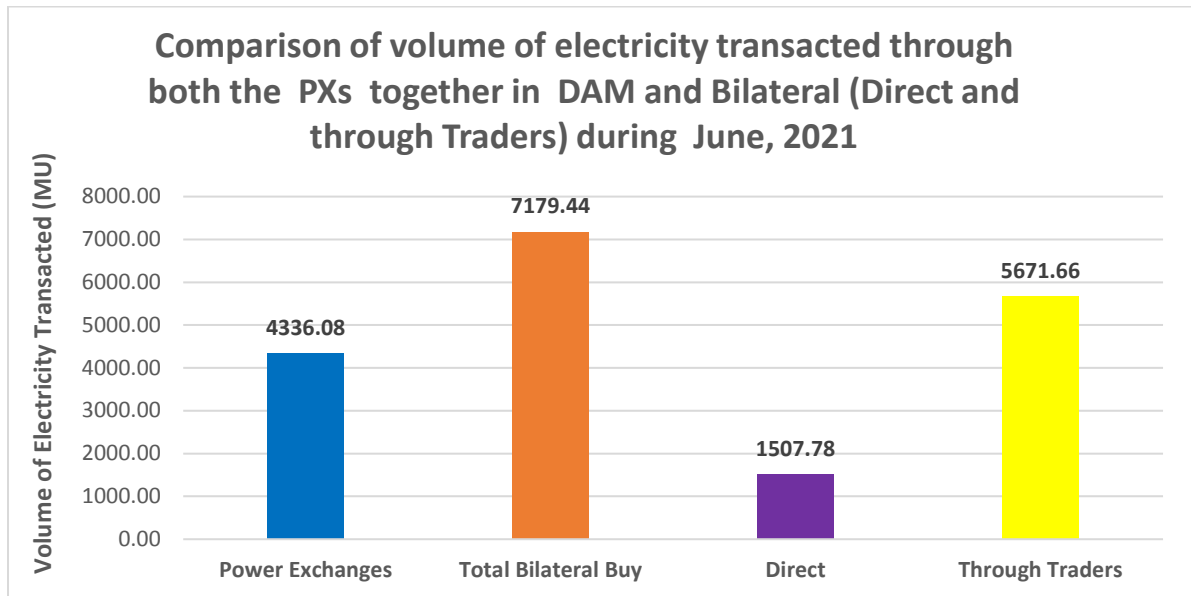


Figure -1

7. ANALYSIS OF MOVEMENT OF PRICES OBSERVED IN DAM DURING JUNE, 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 June, 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 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 **0.47**. 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 June, 2021.
- 7.3.** The same relationship is visible from the analysis carried out from the plot in **Figure 2**.

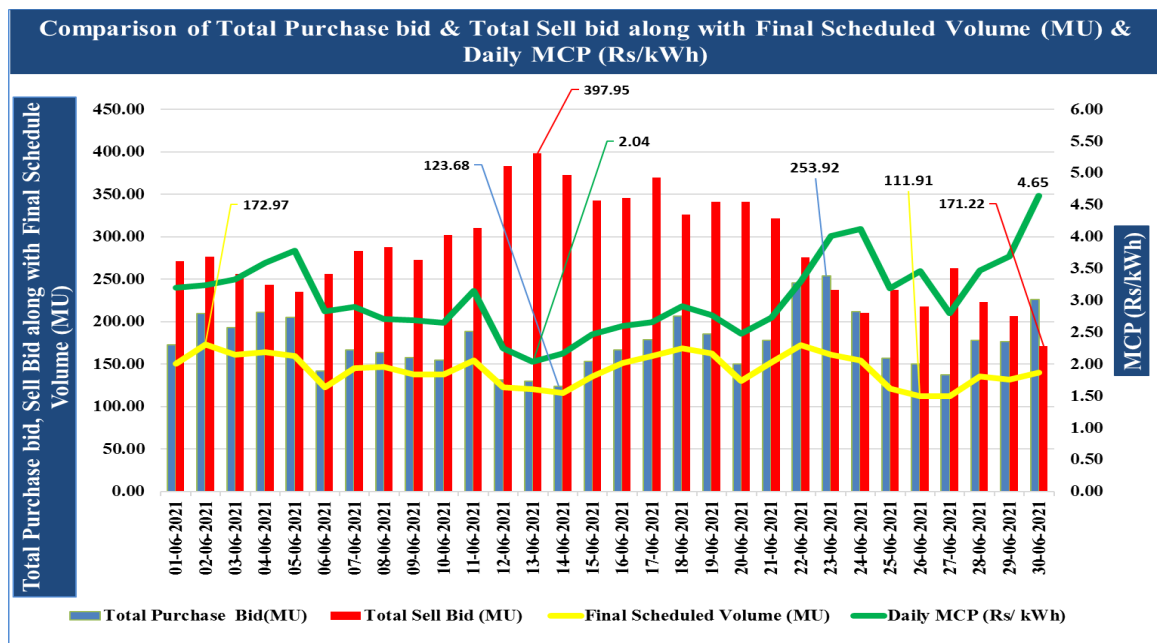


Figure -2

- 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 June, 2021, it is observed that on second Monday (i.e. 14th June, 2021), FSV showed decreasing trend in comparison to second Sunday (i.e. 13th June, 2021). The detailed analysis on this is given at **Appendix-I**.
- 7.5. A comparison of maximum, minimum, daily, evening time MCP is shown in **Figure -3**. The same are also tabulated in **Annexure-IV**.

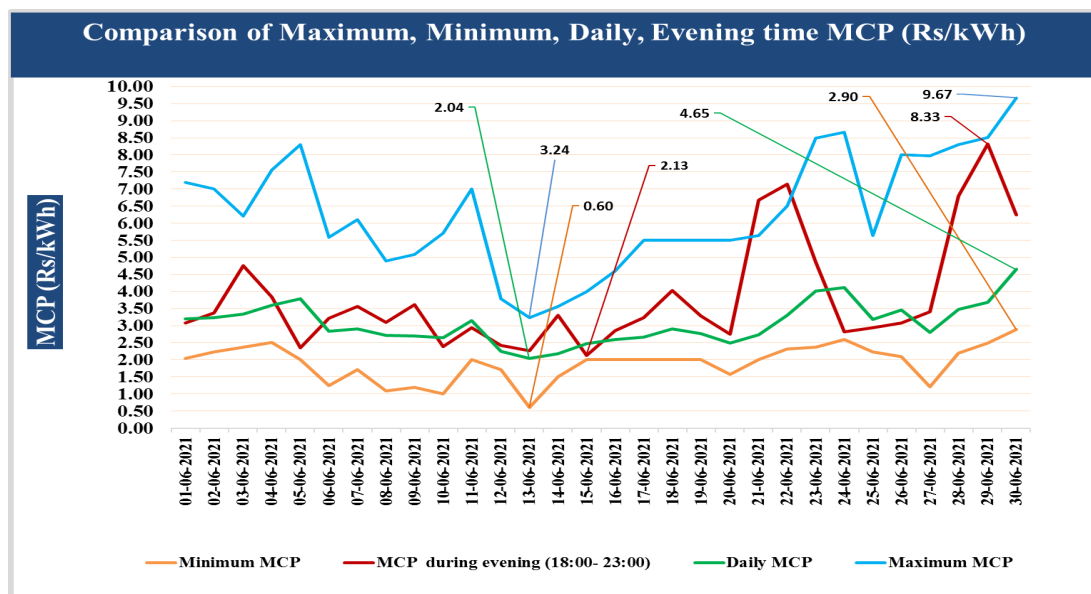


Figure -3

- 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 at **para 7.1 and 7.2 above**.
- 7.7. On **20 days** during the month, the maximum FSV occurred during the **time period 06:30-07:30 Hrs.** [Annexure VI]

- 7.8.** On **21 days** during the month, the maximum MCP occurred during the **time period 22:30-23:30 Hrs. [Annexure VI]**
- 7.9.** On **9 days** during the month, the minimum FSV occurred during the **time period 12:30-13:30 Hrs. [Annexure VI]**
- 7.10.** On **9 days** during the month, the minimum MCP occurred during the **time period 12:45-13:30 Hrs. [Annexure VI]**
- 7.11.** The maximum demand met during the month of June, 2021 in the country occurred on **30th June, 2021 at 191.51 GW**, which is **13.47%** more than the maximum demand occurred during **May, 2021 [i.e. 168.78 GW on 06th May, 2021]** and is **16.10%** more than the maximum demand occurred during June, 2020 i.e. **[164.95 GW on 23th June, 2020]**.
- 7.12.** In the month of June, 2021, One nation One Price was observed in IEX for **all 30 days** during the month, as there was no transmission congestion . Whereas, in PXIL also , there was no congestion in transmission system during June, 2021, so one nation one price was observed on **all 28 days** during which transaction of electricity happened (i.e. 01th to 07th, 10th to 30th June, 2021). While in the month of May, 2021, One nation One Price was observed in IEX for **all 31 days** during the month, as there was no transmission congestion. Whereas, in PXIL, there was no congestion in transmission system during May, 2021, so one nation one price was observed on **all 12 days** during which transaction of electricity happened (i.e. 04th to 07th, 11th, 14th to 15th, 17th, 24th, 28th, 30th to 31st May, 2021). Similarly, in the month of June, 2020, there was no congestion in transmission system in IEX, hence, one nation one price was observed for all 30 days on IEX. Whereas, in PXIL also, there was no congestion in transmission system, so one nation one price was observed on all 13 days during which transaction of electricity happened (1st to 6th and 8th to 14th June, 2020).
- 7.13.** There was real time curtailment of **2.35 MU** on two days (25th to 26th June, 2021) in IEX, whereas, in PXIL, there was no real time curtailment in June, 2021. Further, there was no real time curtailment in IEX and PXIL in May, 2021. In June, 2020 also, there was no real time curtailment in IEX and PXIL.
- 7.14.** The **top 10 sellers** on the power exchanges in **Day Ahead Market (DAM)** in the month of June, 2021 were **Teesta-3, Himachal Pradesh, Uttar Pradesh, West Bengal, Sembcorp Gayatri, Odisha, Madhya Pradesh, Delhi, Chhattisgarh and Kerala**, which constituted **60.03%** of the market volume. **[Annexure VII]**
- 7.15.** The **top 10 purchasers** on the power exchanges in **Day Ahead Market (DAM)** in the month of June, 2021 were **Gujarat, Maharashtra, Andhra Pradesh, Punjab, Haryana,**

Rajasthan, Tamil Nadu, Telangana, Delhi and Uttar Pradesh, which constituted 87.64 % of the market volume. [Annexure VII]

7.16. The total volume of electricity purchased by Discoms/Licensees in DAM in the month of June, 2021 was **4,332.32 MU**, which constituted **99.91 %** 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 May, 2021 was **4,329.73 MU**, which constituted **99.14 %** 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 JUNE, 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 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 **0.69**. 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 June, 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 at **para 8.1 above**.

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

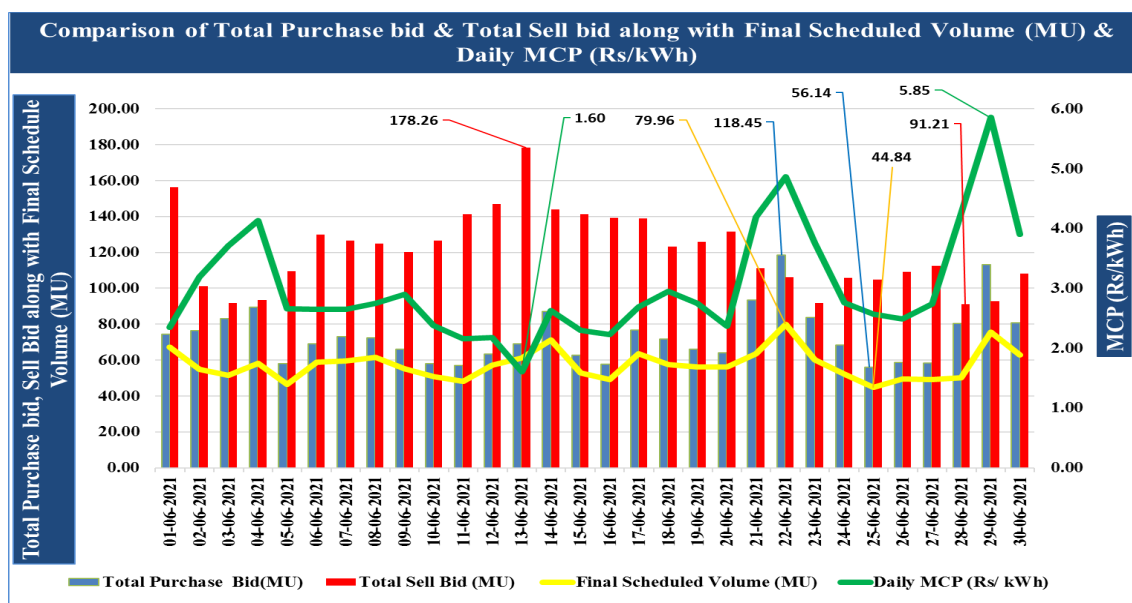


Figure-4

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

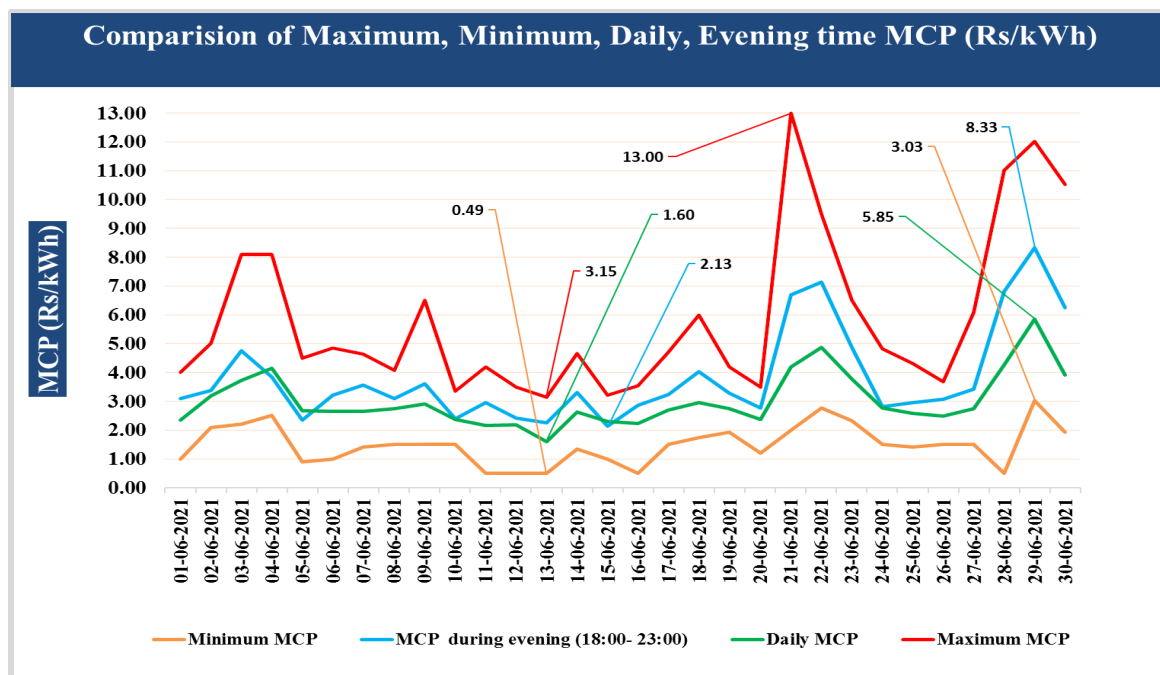


Figure-5

- 8.5. On **9 days** during the month, the maximum FSV occurred during the **time period 22:30-24:00 Hrs.** [Annexure X]
- 8.6. On **10 days** during the month, the maximum MCP occurred during the **time period 22:00-23:00 Hrs.** [Annexure X]
- 8.7. On **7 days** during the month, the minimum FSV occurred during the **time period 07:30-09:00 Hrs.** [Annexure X]
- 8.8. On **7 days** during the month, the minimum MCP occurred during the **time period 10:00-10:30 Hrs.** [Annexure X]
- 8.9. There was **no** real time curtailment in IEX in Real Time Market (RTM) during June, 2021 and May, 2021, whereas, no transaction of electricity happened in PXIL during June, 2021 and May, 2021.
- 8.10. In the month of June, 2021, there was transmission congestion of **3.97 MU** in IEX in Real Time Market for 9 days (11th, 15th, 17th to 19th, 23rd to 25th and 30th June 2021), hence, one nation one price was observed for **21 days** in IEX during June, 2021. Whereas, in PXIL, no transaction of electricity happened in June, 2021 in Real Time Market. Further, in the month of May, 2021, there was no transmission congestion in IEX in Real Time Market, hence, one nation one price was observed for all **31 days** in IEX. Whereas, in PXIL, no transaction of electricity happened in May, 2021 in Real Time Market.

- 8.11.** The **top 10 sellers** on the power exchanges in Real Time Market (RTM) in the month of June, 2021 were **J&K, West Bengal, Madhya Pradesh, Uttar Pradesh, Orissa, Delhi, Karnataka, Kameng HEP, MB Power and Rajasthan**, which constituted **61.56%** of the market volume. [Annexure XI]
- 8.12.** The **top 10 purchasers** on the power exchanges in Real Time Market (RTM) in the month of June, 2021 were **Telangana, Andhra Pradesh, Rajasthan, Tamil Nadu, Uttar Pradesh, Maharashtra, Bihar, Haryana, Punjab and Delhi**, which constituted **83.42%** of the market volume. [Annexure XII]
- 8.13.** The total volume of electricity purchased by Discoms/Licensees in RTM in the month of June, 2021 was **1,715.65 MU**, which constituted **99.42 %** 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 May, 2021 was **1,427.28 MU**, which constituted **99.37%** 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, 2021 to March, 2022 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, 2021	5,699.22	4.73	3.70	3.69	0	0
	May, 2021	4,363.88	3.32	2.83	3.06	0	0
	June, 2021	4,314.17	21.91	3.06	3.35	2.35	0
Total Quarter -I	April - June, 2021	14,377.27	29.96			2.35	0
Total April, 2021 - March, 2022		14,377.27	29.96			2.35	0

Annexure-II**Final Scheduled Volume in Term Ahead Market (TAM) for the months of April, 2021 to March, 2022 of IEX and PXIL (Trade and Delivery date basis)**

Quarter	Months	Final Scheduled Volume (MU) on Trade Date Basis		
		IEX	PXIL	Total
Quarter -I	April, 2021	325.78	651.35	977.13
	May, 2021	425.63	344.03	769.66
	June, 2021	622.42	358.74	981.16
Total Quarter -I	April- June, 2021	1,373.83	1,354.12	2,727.95
Total April, 2021 - March, 2022		1,373.83	1,354.12	2,727.95

Quarter	Months	Final Scheduled Volume (MU) on Delivery Date Basis		
		IEX	PXIL	Total
Quarter -I	April, 2021	348.58	576.72	925.30
	May, 2021	382.62	419.36	801.98
	June, 2021	640.91	312.66	953.57
Total Quarter -I	April- June, 2021	1,372.11	1,308.74	2,680.85
Total April, 2021 - March, 2022		1,372.11	1,308.74	2,680.85

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

(i) Top five Buyers in Bilateral transactions

Entity Name	Direct		Entity Name	Through Traders	
	(MU)	Percent		(MU)	Percent
Punjab	320.54	21.26%	Punjab	1139.15	20.08%
Haryana	311.62	20.67%	Delhi	1063.68	18.75%
Uttar Pradesh	250.30	16.60%	Gujarat	834.24	14.71%
Jharkhand	121.83	8.08%	Haryana	686.38	12.10%
MP	116.18	7.71%	Uttar Pradesh	450.07	7.94%
Total Volume	1,120.47	74.32%	Total Volume	4,173.52	73.58%
Total Volume in Bilateral	1,507.78		Total Volume in Bilateral	5,671.66	

(ii) Top five Sellers in Bilateral transactions

Entity Name	Direct		Entity Name	Through Traders	
	(MU)	Percent		(MU)	Percent
MP	517.18	33.33%	Raipur Energen	713.08	12.67%
Rajasthan	139.56	8.99%	Himachal Pradesh	533.17	9.48%
DVC	138.97	8.96%	JITPL	438.48	7.79%
SEIL Project-2	132.17	8.52%	JPNIGRIE_JNSTPP	338.48	6.02%
Adhunik Power	121.83	7.85%	KARNATAKA	306.36	5.45%
Total Volume	1,049.71	67.65%	Total Volume	2,329.57	41.41%
Total Volume in Bilateral	1,551.82		Total Volume in Bilateral	5,626.17	

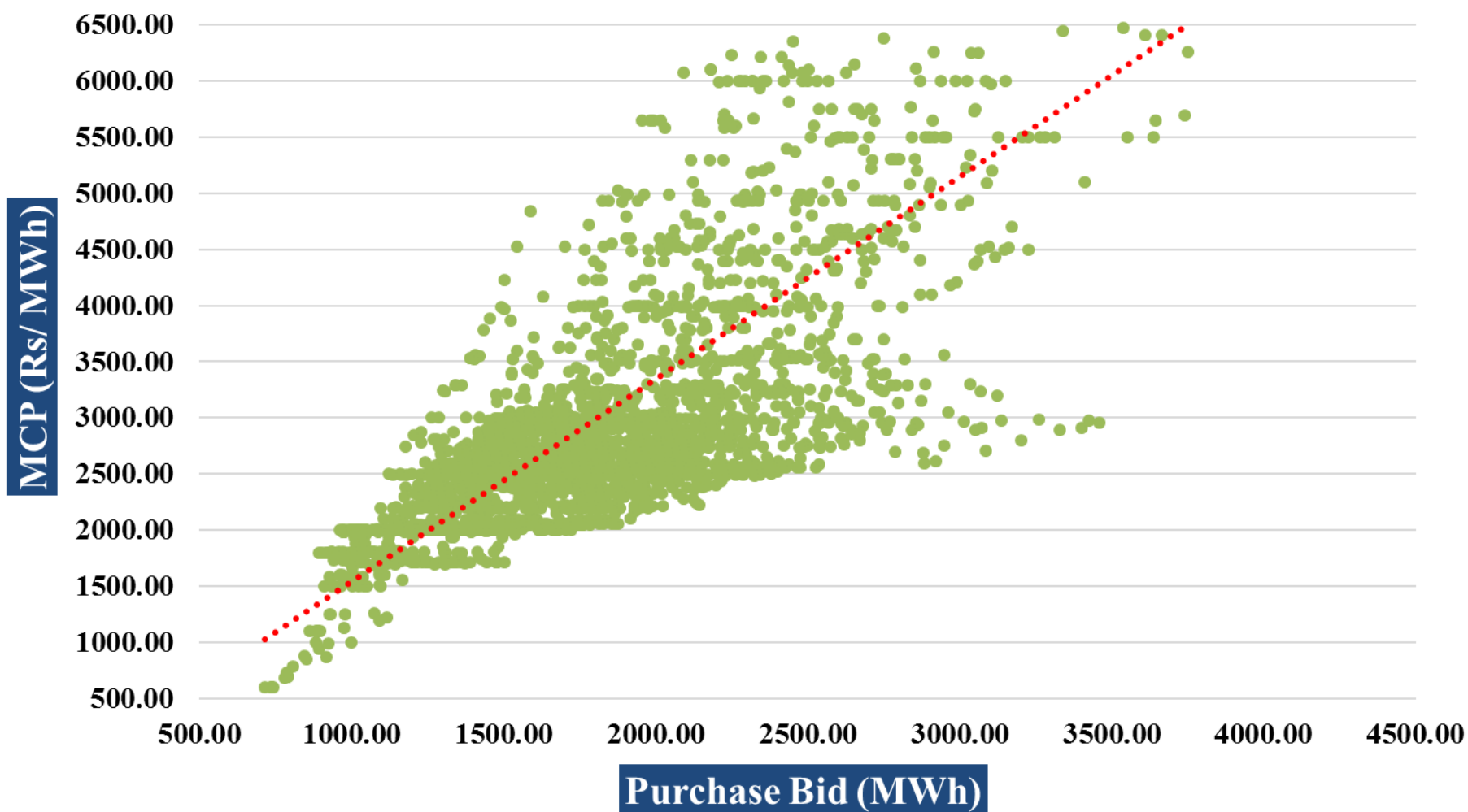
Evening MCP, Day MCP, Night MCP, Morning MCP, Maximum MCP, Minimum MCP, Average MCP and Final Scheduled Volume (MU) in DAM

Date	MCP during night (01:00-06:00, 23:00-24:00)	MCP during morning (07:00- 10:00)	MCP during day (11:00- 17:00)	MCP during evening (18:00- 23:00)	Maximum MCP	Minimum MCP	Average MCP	Final Scheduled Volume (MU)
01-06-2021	1.99	2.01	2.28	3.08	7.19	2.04	3.20	150.57
02-06-2021	3.32	2.84	3.10	3.37	7.00	2.22	3.24	172.97
03-06-2021	3.84	3.18	3.01	4.75	6.21	2.37	3.33	161.27
04-06-2021	5.53	3.46	3.38	3.83	7.55	2.50	3.59	164.26
05-06-2021	3.49	2.28	2.31	2.35	8.30	2.00	3.78	159.71
06-06-2021	3.20	2.19	1.89	3.22	5.58	1.25	2.83	123.09
07-06-2021	2.58	2.27	2.15	3.57	6.10	1.71	2.90	145.25
08-06-2021	3.00	2.59	2.28	3.09	4.90	1.10	2.71	146.69
09-06-2021	3.03	2.41	2.45	3.61	5.08	1.20	2.69	138.03
10-06-2021	2.62	2.28	2.17	2.39	5.70	1.00	2.65	137.94
11-06-2021	1.71	1.71	2.18	2.94	7.00	2.00	3.15	154.04
12-06-2021	2.12	2.33	1.95	2.42	3.78	1.71	2.25	122.63
13-06-2021	2.08	1.07	0.87	2.26	3.24	0.60	2.04	120.62
14-06-2021	2.35	2.30	2.52	3.31	3.56	1.50	2.17	116.34
15-06-2021	2.50	2.46	2.16	2.13	3.99	2.00	2.47	135.88
16-06-2021	2.33	2.26	1.56	2.86	4.60	2.00	2.60	151.35
17-06-2021	2.84	2.68	2.09	3.23	5.50	2.00	2.66	159.97
18-06-2021	2.88	2.64	2.29	4.02	5.50	2.00	2.91	168.31
19-06-2021	2.82	2.67	2.25	3.29	5.50	2.00	2.77	162.73
20-06-2021	2.84	2.37	1.56	2.75	5.50	1.58	2.48	130.07
21-06-2021	4.13	2.95	2.83	6.68	5.65	2.00	2.73	151.75
22-06-2021	4.96	3.25	3.73	7.14	6.50	2.32	3.30	172.58
23-06-2021	3.37	3.52	3.34	4.86	8.50	2.37	4.01	161.23
24-06-2021	3.06	2.55	2.51	2.82	8.66	2.60	4.12	154.21
25-06-2021	2.80	2.38	2.13	2.95	5.65	2.22	3.19	121.34
26-06-2021	2.33	2.16	2.33	3.08	8.01	2.09	3.47	111.91
27-06-2021	2.75	2.53	2.27	3.41	7.97	1.22	2.80	112.38
28-06-2021	4.04	2.49	3.30	6.80	8.30	2.20	3.48	135.51
29-06-2021	6.44	4.07	4.16	8.33	8.50	2.49	3.69	131.82
30-06-2021	3.76	2.94	2.60	6.24	9.67	2.90	4.65	139.73
Maximum	6.44	4.07	4.16	8.33	9.67	2.90	4.65	172.97
Minimum	1.71	1.07	0.87	2.13	3.24	0.60	2.04	111.91
Average	3.16	2.56	2.46	3.83	6.31	1.91	3.06	143.81

MCP: Market Clearing Price (Rs/kWh)

FSV: Final Scheduled Volume (MU)

Comparison of MCP w.r.t. Purchase Bid for 2,880 Time Blocks during the month of June, 2021



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

Annexure-VI**Maximum Final Schedule Volume (FSV), Minimum FSV, Maximum Market Clearing Price (MCP) and Minimum MCP 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
01-06-2021	16:00 - 16:15	2.02	23:30 - 23:45	7.19	10:30 - 10:45	1.12	08:00 - 08:15	2.04
02-06-2021	06:30 - 06:45	2.29	22:30 - 22:45	7.00	18:15 - 18:30	1.48	08:00 - 08:15	2.22
03-06-2021	07:00 - 07:15	2.46	22:45 - 23:00	6.21	18:15 - 18:30	1.23	18:15 - 18:30	2.37
04-06-2021	06:45 - 07:00	2.25	22:30 - 22:45	7.55	11:45 - 12:00	1.34	11:00 - 11:15	2.50
05-06-2021	07:00 - 07:15	2.30	22:30 - 22:45	8.30	12:45 - 13:00	1.21	13:45 - 14:00	2.00
06-06-2021	06:30 - 06:45	1.80	00:00 - 00:15	5.58	12:30 - 12:45	0.87	09:45 - 10:00	1.25
07-06-2021	16:15 - 16:30	1.94	22:45 - 23:00	6.10	11:45 - 12:00	1.11	08:00 - 08:15	1.71
08-06-2021	00:00 - 00:15	2.32	00:00 - 00:15	4.90	13:00 - 13:15	0.84	13:00 - 13:15	1.10
09-06-2021	00:00 - 00:15	2.14	23:30 - 23:45	5.08	09:15 - 09:30	0.99	18:15 - 18:30	1.20
10-06-2021	00:00 - 00:15	2.35	23:30 - 23:45	5.70	11:15 - 11:30	0.95	18:15 - 18:30	1.00
11-06-2021	00:00 - 00:15	2.24	22:30 - 22:45	7.00	09:00 - 09:15	1.05	08:30 - 08:45	2.00
12-06-2021	06:30 - 06:45	1.83	22:30 - 22:45	3.78	13:15 - 13:30	0.93	08:45 - 09:00	1.71
13-06-2021	07:00 - 07:15	1.97	22:45 - 23:00	3.24	12:45 - 13:00	0.71	12:45 - 13:00	0.60
14-06-2021	06:45 - 07:00	1.92	22:30 - 22:45	3.56	13:00 - 13:15	0.94	18:45 - 19:00	1.50
15-06-2021	06:45 - 07:00	2.22	22:45 - 23:00	3.99	02:45 - 03:00	0.94	13:00 - 13:15	2.00
16-06-2021	06:30 - 06:45	2.35	22:30 - 22:45	4.60	13:00 - 13:15	1.15	13:15 - 13:30	2.00
17-06-2021	23:15 - 23:30	2.25	22:45 - 23:00	5.50	02:45 - 03:00	1.23	13:00 - 13:15	2.00
18-06-2021	06:30 - 06:45	2.25	22:30 - 22:45	5.50	04:00 - 04:15	1.37	13:15 - 13:30	2.00
19-06-2021	06:15 - 06:30	2.30	22:30 - 22:45	5.50	11:45 - 12:00	1.20	12:45 - 13:00	2.00
20-06-2021	21:45 - 22:00	2.20	22:30 - 22:45	5.50	11:15 - 11:30	0.87	10:00 - 10:15	1.58
21-06-2021	06:30 - 06:45	2.24	21:45 - 22:00	5.65	10:00 - 10:15	1.19	13:00 - 13:15	2.00
22-06-2021	06:45 - 07:00	2.83	23:30 - 23:45	6.50	10:30 - 10:45	1.32	13:00 - 13:15	2.32
23-06-2021	06:45 - 07:00	2.28	23:00 - 23:15	8.50	10:00 - 10:15	0.99	10:00 - 10:15	2.37
24-06-2021	07:00 - 07:15	2.32	22:30 - 22:45	8.66	11:45 - 12:00	1.24	18:00 - 18:15	2.60
25-06-2021	06:45 - 07:00	1.83	23:30 - 23:45	5.65	13:00 - 13:15	1.02	08:15 - 08:30	2.22
26-06-2021	07:15 - 07:30	1.66	23:15 - 23:30	8.01	03:45 - 04:00	0.84	08:30 - 08:45	2.09
27-06-2021	06:30 - 06:45	1.79	22:30 - 22:45	7.97	13:00 - 13:15	0.76	18:15 - 18:30	1.22
28-06-2021	07:15 - 07:30	1.83	22:30 - 22:45	8.30	03:45 - 04:00	0.95	03:45 - 04:00	2.20
29-06-2021	23:00 - 23:15	1.86	21:45 - 22:00	8.50	17:45 - 18:00	1.03	08:00 - 08:15	2.49
30-06-2021	07:15 - 07:30	1.87	22:30 - 22:45	9.67	20:00 - 20:15	1.24	12:00 - 12:15	2.90

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 June, 2021**

S. No.	Entity Name	Sell		Entity Name	Purchase	
		(MU)	Percent (%)		(MU)	Percent (%)
1.	Teesta -3	460.53	10.62%	Gujarat	813.28	18.75%
2.	Himachal Pradesh	373.94	8.62%	Maharashtra	695.73	16.04%
3.	Uttar Pradesh	346.11	7.98%	Andhra Pradesh	675.37	15.57%
4.	West Bengal	291.43	6.72%	Punjab	417.13	9.61%
5.	Sembcorp Gayatri	249.38	5.75%	Haryana	327.96	7.56%
6.	Orissa	213.62	4.92%	Rajasthan	225.81	5.20%
7.	Madhya Pradesh	208.05	4.80%	Tamilnadu	215.80	4.97%
8.	Delhi	177.20	4.08%	Telangana	203.31	4.69%
9.	Chhattisgarh	143.31	3.30%	Delhi	123.30	2.84%
10.	Kerala	140.77	3.24%	Uttar Pradesh	104.38	2.41%
11.	Karnataka	119.22	2.75%	Assam	79.91	1.84%
12.	Bihar	117.36	2.71%	Uttarakhand	72.07	1.66%
13.	Jindal Power	113.99	2.63%	Madhya Pradesh	71.74	1.65%
14.	MB Power	111.83	2.58%	Dadra & Nagar Haveli	65.26	1.50%
15.	DB Power	73.93	1.70%	Karnataka	48.78	1.12%
16.	Assam	72.92	1.68%	NVVN (SNA) - NEA	42.89	0.99%
17.	Thermal Powertech	67.32	1.55%	Kerala	33.79	0.78%
18.	Maharashtra	59.73	1.38%	Bihar	32.86	0.76%
19.	GMR Warora	58.51	1.35%	Himachal Pradesh	24.83	0.57%
20.	Jaypee Nigrie	52.33	1.21%	Jharkhand	19.29	0.44%
21.	Sainj HEP	48.36	1.11%	Daman & Diu	11.75	0.27%
22.	Essar Power MP Ltd	45.06	1.04%	Orissa	8.51	0.20%
23.	Karcham Wangtoo	44.07	1.02%	ArcelorMittal Nippon	6.11	0.14%
24.	AD Hydro	41.63	0.96%	Nagaland	5.86	0.14%
25.	Singoli Bhagwati	41.47	0.96%	Goa WR	3.99	0.09%
26.	Jorethang	40.62	0.94%	Manipur	3.61	0.08%
27.	Tashiding HEP	37.20	0.86%	Meghalaya	2.96	0.07%
28.	JITPL	36.81	0.85%	Chhattisgarh	0.97	0.02%
29.	Rajasthan	36.62	0.84%	Chandigarh	0.66	0.02%
30.	Tamilnadu	32.58	0.75%	J&K	0.36	0.01%
31.	Goa WR	31.64	0.73%	Arunachal Pradesh	0.17	0.00%
32.	Maruti Clean Coal	31.12	0.72%			
33.	Chandigarh	27.14	0.63%			
34.	GMR Kamalanga	26.70	0.62%			
35.	Spectrum Coal	26.06	0.60%			
36.	Jhabua Power	25.89	0.60%			
37.	Jharkhand	25.41	0.59%			
38.	Telangana	19.16	0.44%			
39.	RKM Power	18.06	0.42%			
40.	Palatana	17.39	0.40%			

41.	Adhunik Power	16.40	0.38%			
42.	Meghalaya	15.20	0.35%			
43.	Kameng HEP	14.79	0.34%			
44.	Adani Power STG2	14.50	0.33%			
45.	Dikchu	13.78	0.32%			
46.	J&K	13.35	0.31%			
47.	Torrent Power	13.13	0.30%			
48.	DVC	13.08	0.30%			
49.	Andhra Pradesh	12.89	0.30%			
50.	Bongaigaon	12.40	0.29%			
51.	Gujarat	12.24	0.28%			
52.	Arunachal Pradesh	11.48	0.26%			
53.	Chuzachen	8.73	0.20%			
54.	Jindal Power Ltd. Stg-II	8.48	0.20%			
55.	Sikkim	6.48	0.15%			
56.	Haryana	5.44	0.13%			
57.	Lanco Budhil	5.29	0.12%			
58.	Mizoram	4.46	0.10%			
59.	Adani Power STG3	4.08	0.09%			
60.	NLC TPS-II	3.85	0.09%			
61.	Ramagundam Stg-1	3.41	0.08%			
62.	NTPL	3.00	0.07%			
63.	RGPPL	2.88	0.07%			
64.	TRN Energy	2.82	0.06%			
65.	Punjab	2.53	0.06%			
66.	BALCO 2	2.33	0.05%			
67.	IL&FS	1.66	0.04%			
68.	KSK Mahanadi	1.27	0.03%			
69.	Nagaland	1.08	0.02%			
70.	Meenakshi Energy	0.90	0.02%			
71.	Raipur Energen	0.67	0.02%			
72.	Dhariwal	0.49	0.01%			
73.	Uttarakhand	0.40	0.01%			
74.	Simhadri Stg-2	0.30	0.01%			
75.	NLC	0.07	0.00%			
76.	Dadra & Nagar Haveli	0.06	0.00%			
77.	Raigarh Energy Ltd.	0.03	0.00%			
Total Volume of top 10		2,604.34	60.03%	Total Volume of top 10	3,802.07	87.64%
Total Volume in PXs		4,338.43		Total Volume in PXs	4,338.43	

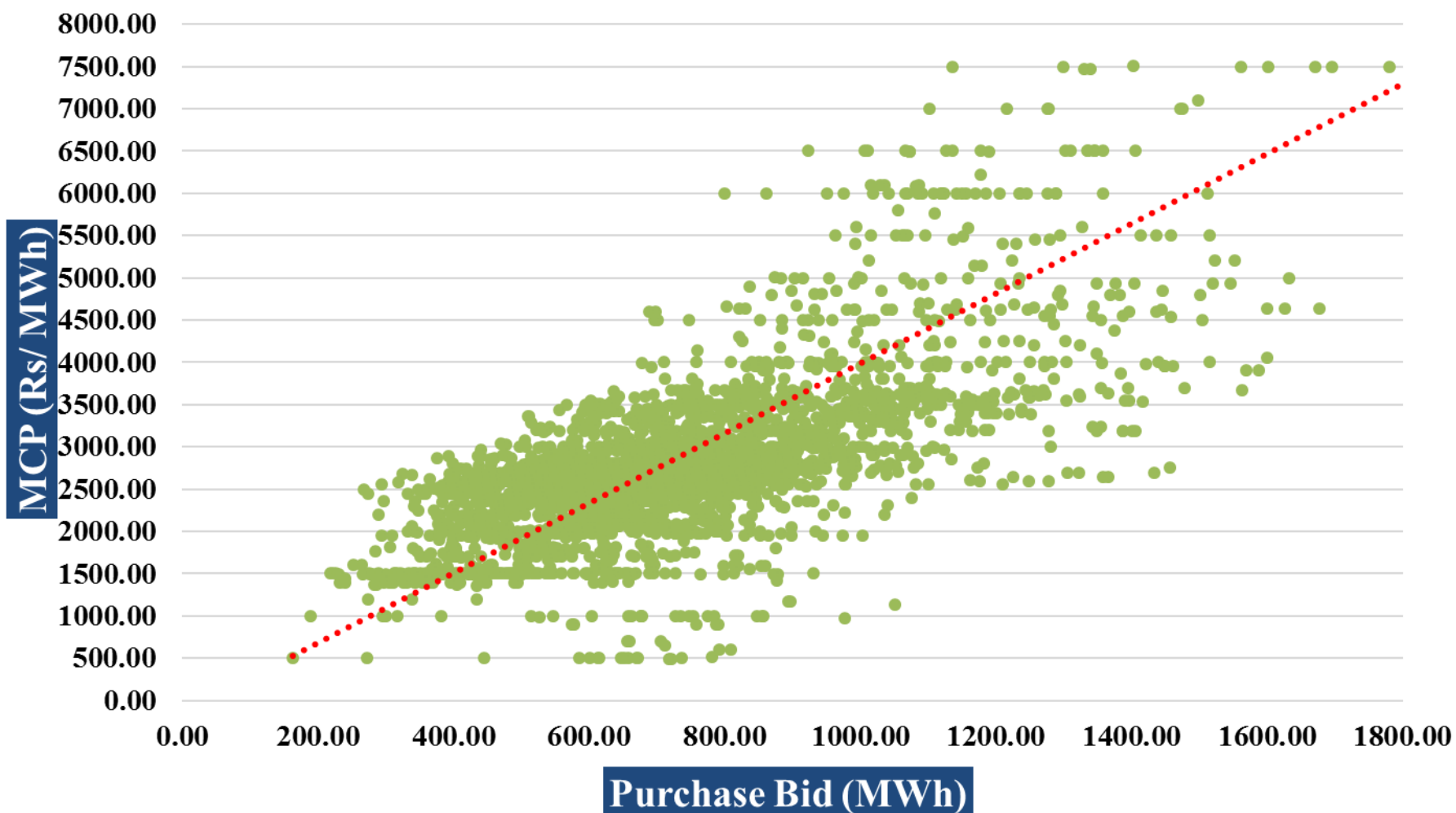
Annexure-VIII**Evening MCP, Day MCP, Night MCP, Morning MCP, Maximum MCP, Minimum MCP, Average MCP and Final Scheduled Volume (MU) in RTM**

Date	MCP during night (01:00-06:00, 23:00-)	MCP during morning (07:00-10:00)	MCP during day (11:00-17:00)	MCP during evening (18:00- 23:00)	Maximum MCP	Minimum MCP	Average MCP	Final Scheduled Volume (MU)
01-06-2021	1.99	2.01	2.28	3.08	4.00	0.99	2.35	67.29
02-06-2021	3.32	2.84	3.10	3.37	5.00	2.10	3.19	54.87
03-06-2021	3.84	3.18	3.01	4.75	8.10	2.20	3.72	51.46
04-06-2021	5.53	3.46	3.38	3.83	8.10	2.50	4.13	58.24
05-06-2021	3.49	2.28	2.31	2.35	4.50	0.90	2.66	46.49
06-06-2021	3.20	2.19	1.89	3.22	4.85	1.00	2.65	59.05
07-06-2021	2.58	2.27	2.15	3.57	4.64	1.40	2.65	59.70
08-06-2021	3.00	2.59	2.28	3.09	4.07	1.50	2.74	61.72
09-06-2021	3.03	2.41	2.45	3.61	6.50	1.50	2.90	55.05
10-06-2021	2.62	2.28	2.17	2.39	3.35	1.50	2.38	50.93
11-06-2021	1.71	1.71	2.18	2.94	4.20	0.50	2.16	48.05
12-06-2021	2.12	2.33	1.95	2.42	3.50	0.50	2.18	57.10
13-06-2021	2.08	1.07	0.87	2.26	3.15	0.49	1.60	61.10
14-06-2021	2.35	2.30	2.52	3.31	4.66	1.35	2.63	71.19
15-06-2021	2.50	2.46	2.16	2.13	3.20	1.00	2.30	52.99
16-06-2021	2.33	2.26	1.56	2.86	3.54	0.50	2.22	49.17
17-06-2021	2.84	2.68	2.09	3.23	4.70	1.50	2.69	63.45
18-06-2021	2.88	2.64	2.29	4.02	6.00	1.73	2.95	57.43
19-06-2021	2.82	2.67	2.25	3.29	4.20	1.93	2.75	56.06
20-06-2021	2.84	2.37	1.56	2.75	3.49	1.20	2.36	56.18
21-06-2021	4.13	2.95	2.83	6.68	13.00	2.00	4.19	63.66
22-06-2021	4.96	3.25	3.73	7.14	9.50	2.77	4.86	79.96
23-06-2021	3.37	3.52	3.34	4.86	6.50	2.33	3.76	60.15
24-06-2021	3.06	2.55	2.51	2.82	4.81	1.50	2.75	52.15
25-06-2021	2.80	2.38	2.13	2.95	4.30	1.40	2.57	44.84
26-06-2021	2.33	2.16	2.33	3.08	3.68	1.50	2.49	49.61
27-06-2021	2.75	2.53	2.27	3.41	6.09	1.50	2.74	49.28
28-06-2021	4.04	2.49	3.30	6.80	11.00	0.50	4.25	50.20
29-06-2021	6.44	4.07	4.16	8.33	12.02	3.03	5.85	75.61
30-06-2021	3.76	2.94	2.60	6.24	10.52	1.93	3.90	62.74
Maximum	6.44	4.07	4.16	8.33	13.00	3.03	5.85	79.96
Minimum	1.71	1.07	0.87	2.13	3.15	0.49	1.60	44.84
Average	3.16	2.56	2.46	3.83	5.84	1.49	3.02	57.52

MCP: Market Clearing Price (Rs/kWh)

FSV: Final Scheduled Volume (MU)

Comparison of MCP w.r.t. Purchase Bid for 2,880 Time Blocks during the month of June, 2021



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

Maximum Final Schedule Volume (FSV), Minimum FSV, Maximum Market Clearing Price (MCP) and Minimum MCP 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
01-06-2021	05:15-05:30	0.95	19:15-19:30	4.00	17:15-17:30	0.41	18:00-18:15	0.99
02-06-2021	15:30-15:45	1.07	23:00-23:15	5.00	22:00-22:15	0.30	09:15-09:30	2.10
03-06-2021	09:00-09:15	0.88	23:15-23:30	8.10	13:00-13:15	0.31	07:30-07:45	2.20
04-06-2021	03:30-03:45	0.91	00:15-00:30	8.10	00:30-00:45	0.38	18:00-18:15	2.50
05-06-2021	22:45-23:00	0.85	00:15-00:30	4.50	07:45-08:00	0.20	19:45-20:00	0.90
06-06-2021	23:45-24:00	1.08	23:00-23:15	4.85	10:00-10:15	0.19	10:00-10:15	1.00
07-06-2021	21:45-22:00	1.27	21:30-21:45	4.64	10:15-10:30	0.33	10:15-10:30	1.40
08-06-2021	23:30-23:45	0.87	22:30-22:45	4.07	10:00-10:15	0.37	10:00-10:15	1.50
09-06-2021	23:15-23:30	0.97	22:45-23:00	6.50	18:30-18:45	0.38	12:15-12:30	1.50
10-06-2021	04:00-04:15	0.78	00:15-00:30	3.35	07:30-07:45	0.29	12:00-12:15	1.50
11-06-2021	22:30-22:45	0.89	21:45-22:00	4.20	08:45-09:00	0.25	00:30-00:45	0.50
12-06-2021	01:15-01:30	0.93	00:45-01:00	3.50	09:00-09:15	0.33	04:00-04:15	0.50
13-06-2021	14:15-14:30	0.92	22:00-22:15	3.15	20:00-20:15	0.45	11:45-12:00	0.49
14-06-2021	16:30-16:45	1.22	22:15-22:30	4.66	03:15-03:30	0.42	03:30-03:45	1.35
15-06-2021	00:00-00:15	0.89	00:00-00:15	3.20	18:15-18:30	0.28	17:30-17:45	1.00
16-06-2021	21:45-22:00	0.91	21:15-21:30	3.54	11:30-11:45	0.23	13:00-13:15	0.50
17-06-2021	23:45-24:00	0.98	21:45-22:00	4.70	13:00-13:15	0.22	13:00-13:15	1.50
18-06-2021	22:30-22:45	0.84	22:30-22:45	6.00	18:15-18:30	0.36	13:45-14:00	1.73
19-06-2021	22:15-22:30	1.05	21:00-21:15	4.20	08:45-09:00	0.34	04:00-04:15	1.93
20-06-2021	01:30-01:45	0.80	21:00-21:15	3.49	10:15-10:30	0.31	10:00-10:15	1.20
21-06-2021	16:30-16:45	1.33	23:30-23:45	13.00	21:45-22:00	0.27	02:45-03:00	2.00
22-06-2021	14:30-14:45	1.28	22:30-22:45	9.50	20:15-20:30	0.44	10:15-10:30	2.77
23-06-2021	14:15-14:30	0.99	22:45-23:00	6.50	20:45-21:00	0.40	05:00-05:15	2.33
24-06-2021	23:30-23:45	0.89	00:00-00:15	4.81	08:30-08:45	0.29	08:30-08:45	1.50
25-06-2021	01:45-02:00	0.69	22:15-22:30	4.30	17:30-17:45	0.29	12:00-12:15	1.40
26-06-2021	15:30-15:45	0.77	21:15-21:30	3.68	18:00-18:15	0.25	10:00-10:15	1.50
27-06-2021	23:30-23:45	0.83	22:30-22:45	6.09	08:00-08:15	0.28	08:00-08:15	1.50
28-06-2021	00:00-00:15	1.01	23:30-23:45	11.00	06:00-06:15	0.16	06:00-06:15	0.50
29-06-2021	15:30-15:45	1.47	21:45-22:00	12.02	05:15-05:30	0.39	18:00-18:15	3.03
30-06-2021	21:45-22:00	1.59	22:15-22:30	10.52	08:30-08:45	0.29	10:15-10:30	1.93

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 June, 2021**

S. No.	Entity Name	Sell		Entity Name	Purchase	
		(MU)	Percent (%)		(MU)	Percent (%)
1.	J&K	228.25	13.23%	Telangana	322.32	18.68%
2.	West Bengal	145.40	8.43%	Andhra Pradesh	245.84	14.25%
3.	Madhya Pradesh	116.51	6.75%	Rajasthan	245.75	14.24%
4.	Uttar Pradesh	101.94	5.91%	Tamilnadu	123.85	7.18%
5.	Orissa	98.54	5.71%	Uttar Pradesh	98.76	5.72%
6.	Delhi	92.30	5.35%	Maharashtra	98.00	5.68%
7.	Karnataka	84.22	4.88%	Bihar	97.78	5.67%
8.	Kameng HEP	81.55	4.73%	Haryana	77.74	4.50%
9.	MB Power	60.26	3.49%	Punjab	71.46	4.14%
10.	Rajasthan	53.22	3.08%	Delhi	58.00	3.36%
11.	NLC TPS-II Stg-2	49.79	2.89%	Gujarat	55.83	3.24%
12.	NLC TPS-II	43.89	2.54%	West Bengal	51.28	2.97%
13.	Himachal Pradesh	43.18	2.50%	Orissa	44.30	2.57%
14.	Kerala	31.19	1.81%	Assam	37.63	2.18%
15.	Telangana	27.28	1.58%	Jharkhand	12.93	0.75%
16.	Bihar	26.00	1.51%	Himachal Pradesh	12.67	0.73%
17.	Chhattisgarh	23.18	1.34%	Manipur	12.38	0.72%
18.	Ramagundam Stg-1	20.91	1.21%	Karnataka	9.94	0.58%
19.	NLC	20.84	1.21%	J&K	6.10	0.35%
20.	Haryana	19.77	1.15%	Dadra & Nagar Haveli	5.76	0.33%
21.	NLC TPS-II Expn	19.70	1.14%	Madhya Pradesh	5.39	0.31%
22.	RKM Power	19.65	1.14%	Teesta -3	5.31	0.31%
23.	Assam	19.44	1.13%	Chhattisgarh	5.23	0.30%
24.	Sasan UMPP	18.62	1.08%	Kerala	4.65	0.27%
25.	GMR Warora	16.52	0.96%	Nagaland	1.98	0.11%
26.	Maharashtra	14.60	0.85%	Uttarakhand	1.94	0.11%
27.	Neyveli New Thermal	14.46	0.84%	Daman & Diu	1.82	0.11%
28.	Jharkhand	13.95	0.81%	DVC	1.79	0.10%
29.	Jindal Power Ltd. Stg-II	12.58	0.73%	Sikkim	1.62	0.09%
30.	Jhabua Power	11.87	0.69%	Maruti Clean Coal Power	1.39	0.08%
31.	Tripura	11.20	0.65%	Goa WR	1.17	0.07%
32.	Jorethang	11.19	0.65%	Tripura	1.11	0.06%
33.	Tashiding HEP	9.82	0.57%	ArcelorMittal Nippon	1.08	0.06%
34.	Mouda Stg-1	9.41	0.55%	Jorethang	0.96	0.06%
35.	Jindal Power	9.34	0.54%	Tashiding HEP	0.66	0.04%
36.	Bongaigaon	9.04	0.52%	Meghalaya	0.47	0.03%
37.	Singoli Bhagwati	6.75	0.39%	Jhabua Power	0.33	0.02%
38.	Sikkim	6.02	0.35%	Spectrum Coal	0.17	0.01%
39.	Punjab	5.99	0.35%	Jindal Power	0.15	0.01%

40.	Ramagundam Stg-3	5.48	0.32%	Arunachal Pradesh	0.14	0.01%
41.	Mouda Stg-2	5.32	0.31%			
42.	GMR Kamalanga	5.22	0.30%			
43.	Farakka	5.14	0.30%			
44.	Sainj HEP	5.01	0.29%			
45.	Sembcorp Gayatri	4.80	0.28%			
46.	Tamilnadu	4.72	0.27%			
47.	Barh Stg-2	4.34	0.25%			
48.	BALCO 2	4.13	0.24%			
49.	Adani Power STG2	3.97	0.23%			
50.	Meghalaya	3.76	0.22%			
51.	Thermal Powertech	3.51	0.20%			
52.	Gujarat	3.22	0.19%			
53.	AD Hydro	3.04	0.18%			
54.	Essar Power MP Ltd	2.97	0.17%			
55.	Simhadri Stg-2	2.95	0.17%			
56.	Manipur	2.95	0.17%			
57.	Adani Power STG3	2.91	0.17%			
58.	Karcham Wangtoo	2.77	0.16%			
59.	Raipur Energen	2.66	0.15%			
60.	Torrent Power	2.62	0.15%			
61.	DVC	2.49	0.14%			
62.	NTPC Kudgi	2.49	0.14%			
63.	DB Power	2.49	0.14%			
64.	Arunachal Pradesh	2.36	0.14%			
65.	AGTPP	2.21	0.13%			
66.	Farakka Stg 3	2.19	0.13%			
67.	AGBPP	1.87	0.11%			
68.	Tanda Stg-2	1.80	0.10%			
69.	Teesta -3	1.64	0.10%			
70.	Palatana	1.62	0.09%			
71.	Simhadri Stg-1	1.61	0.09%			
72.	Dikchu	1.52	0.09%			
73.	Dadri GPP	1.43	0.08%			
74.	Maruti Clean Coal	1.37	0.08%			
75.	Chuzachen	1.29	0.07%			
76.	RGPL IR	1.29	0.07%			
77.	Andhra Pradesh	1.02	0.06%			
78.	NSPCL Bhilai	0.95	0.06%			
79.	SKS Power	0.60	0.03%			
80.	Gandhar_RLNG Fuel	0.40	0.02%			
81.	Jindal Steel	0.40	0.02%			
82.	IL&FS	0.35	0.02%			
83.	Kawas_RLNG Fuel	0.34	0.02%			
84.	Coastal Gujrat Power	0.33	0.02%			
85.	Auraiya	0.27	0.02%			

86.	NTPL	0.25	0.01%			
87.	RGPPL	0.23	0.01%			
88.	RGPPL_Others	0.22	0.01%			
89.	Anta_RLNG Fuel	0.20	0.01%			
90.	Auraiya_RLNG Fuel	0.19	0.01%			
91.	Meenakshi Energy	0.15	0.01%			
92.	Dhariwal	0.11	0.01%			
93.	Spectrum Coal	0.05	0.00%			
94.	Dadri_RLNG Fuel	0.04	0.00%			
95.	Chandigarh	0.03	0.00%			
96.	Dadri_Combined RLNG	0.01	0.00%			
97.	Raigarh Energy Ltd.	0.01	0.00%			
	Total Volume of top 10	1,062.19	61.56%	Total Volume of top 10	1,439.40	83.42%
	Total Volume in PXs	1,725.70		Total Volume in PXs	1,725.70	

Annexure-XII**Cross Border Electricity Transactions in Day Ahead Market (DAM) in IEX with Nepal During the month of June, 2021**

S. No	Delivery Date	Traded Volume (MU)
1	04-06-2021	1.70
2	05-06-2021	2.06
3	06-06-2021	3.01
4	07-06-2021	2.69
5	08-06-2021	2.84
6	09-06-2021	3.43
7	10-06-2021	1.54
8	11-06-2021	2.25
9	12-06-2021	1.45
10	14-06-2021	0.18
11	15-06-2021	0.61
12	16-06-2021	0.18
13	17-06-2021	0.90
14	18-06-2021	1.63
15	19-06-2021	0.14
16	20-06-2021	2.34
17	21-06-2021	1.36
18	22-06-2021	1.85
19	23-06-2021	0.79
20	24-06-2021	2.12
21	25-06-2021	3.64
22	26-06-2021	2.10
23	27-06-2021	1.09
24	28-06-2021	0.89
25	29-06-2021	1.22
26	30-06-2021	0.90
Total		42.89

Note: *Cross Border Transactions of Electricity of 42.89 MU (purchase only) happened with Nepal only during June, 2021.*

Appendix-I**Analysis for change in trend of Final Scheduled Volume in DAM on 02nd Monday of June, 2021 (i.e. 14th June, 2021)**

Final Scheduled Volume (MU) and the Daily MCP (Rs/kWh) invariably shows 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 June, 2021, it is observed that on second Monday (i.e. 14th June, 2021), FSV showed decreasing trend in comparison to second Sunday (i.e. 13th June, 2021). On analysis, it has been found as under:

- (i) On second Monday (14th June, 2021), although there was increase in purchase on power exchange by some of the States in comparison to Sunday (13th June, 2021) by **15.35 MU** [i.e. Maharashtra (7.84 MU), Gujarat (5.42 MU), Assam (1.17 MU), Uttar Pradesh (0.54 MU) and Telangana (0.39 MU), etc.], there was also decrease in purchase on power exchange by some of the States by **19.69 MU** [i.e. Rajasthan (14.51 MU), Delhi (3.06 MU), Andhra Pradesh (1.14 MU), Punjab (0.59 MU) and Tamil Nadu (0.39 MU) etc.]. This resulted in an overall decrease in FSV by **4.28 MU** on Monday (14th June, 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.