

**MONTHLY REPORT ON  
SHORT-TERM TRANSACTIONS OF ELECTRICITY  
(June 2009)**

**Introduction**

A well-functioning electricity market requires an effective market monitoring process. As part of the market monitoring process, the monthly report on short-term transactions of electricity, is being prepared and posted on the website of CERC since August 2008. In this context, “short-term transactions of electricity” means the contracts of less than one year period for electricity transacted through Inter-State Trading Licensees and directly by the Distribution Licensees, Power Exchanges (Indian Energy Exchange Ltd (IEX) and Power Exchange India Ltd (PXIL)), and Unscheduled Interchange (UI). The objectives of the report are: (i) to observe the trends in volume and price of the short-term transactions of electricity; (ii) to analyse competition among the market players; and (iii) to disclose/disseminate all relevant market information. The analysis of the report for the month of June 2009 is as under:

**I: Volume of Short-term Transactions of Electricity**

During the Month of June 2009, total electricity generation excluding generation from renewables and captive power plants in India was 62645.64 MUs (Table-1).

Of the total electricity generation, 5065.63 MUs (8.09%) transacted through short-term i.e. 2417.51 MUs (3.86%) through Bilateral (through traders and direct between distribution companies), followed by 2118.63 MUs (3.38%) through UI and 529.49 MUs (0.85%) through Power Exchanges (IEX and PXIL) (Table-1 & Chart-2).

Of the total short-term transactions, Bilateral constitute 47.72% (36.39% through traders and 11.33% direct between distribution companies) followed by 41.82% through UI and 10.45% through Power Exchanges (Table-1& Chart-1). Daily volume of short-term transactions is shown in Chart-4&5.

The percentage share of electricity traded by each trading licensee in the total volume of electricity traded by all trading licensees is provided in Table-2 & Chart-3. Here the volume includes the volume traded by licensees through power exchanges also. There are 41 trading licensees as on 30.6.2009, of which 12 licensees are undertaking trading during June 2009. Top 5 trading licenses are having share of 87.42% in the total volume traded by all the licensees.

Herfindahl-Hirschman Index (HHI) has been used for measuring the competition among the trading licensees. Increases in the HHI generally indicate a decrease in competition and an increase of market power, whereas decreases indicate the opposite. A HHI above 0.18 indicates high concentration. The HHI computed for volume of electricity traded by trading licensees was 0.33 shows high concentration/market power (Table-2).

The volume of electricity transacted through IEX and PXIL was 478.80 MUs and 50.70 MUs respectively. The volume of total Buy bids and Sale bids was 1018.67 MUs and 822.59 MUs respectively in IEX and 128.89 MUs and 103.53 MUs respectively in PXIL. The gap between the volume of buy bids and sale bids placed through power exchange shows that there was more demand (1.24 times) when compared with the supply offered through IEX and PXIL.

## **II: Price of Short-term Transactions of Electricity**

**(1) Price of electricity transacted through Traders:** Weighted average sale price has been computed for the electricity transacted through traders and it was Rs.5.05. The weighted average sale price also computed for the transactions during Round the clock (RTC), Peak and Off-Peak periods separately and the sale price was Rs.5.04, Rs.6.44 and Rs.5.07 respectively. Minimum and Maximum sale price was Rs.1.84 and Rs.11.04 respectively (Table-3 & 4).

**(2) Price of electricity transacted Through Power Exchange:** The Minimum, Maximum and Weighted Average Price has been computed for the volume transacted through IEX and PXIL separately. The Minimum, Maximum and Weighted Average Price was Rs.0.13, Rs.13.65 and Rs.7.39 respectively in IEX and Rs.2.00, Rs.12.37 and Rs.9.60 respectively in PXIL (Table-5).

**(3) Price of electricity transacted Through UI:** All-India UI price has been computed for NEW Grid and SR Grid separately. The average UI price was Rs.4.94 in the NEW Grid and Rs.5.10 in the SR Grid. The power deficit is more in the Southern Region when compared with other regions, however, the UI price was lower in the SR Grid when compared with the UI price in the NEW Grid. Minimum and Maximum price of UI was Rs.0.00 and Rs.7.35 respectively in the New Grid and Rs.0.00 and Rs.7.35 respectively in the SR Grid (Table-6).

The weighted average price/average price of electricity transacted through trading licensees, power exchanges and UI and its comparison is shown in Chart-6&7.

### **III: Volume of Short-term Transactions of Electricity (State-Wise):**

Of the total bilateral transactions, top 5 states selling 72.31% of the volume are Himachal Pradesh, Jindal Power Ltd, J&K, Chattisgarh, and Karnataka and top 5 states purchasing 81.37% of the volume are Punjab, Maharashtra, Haryana, Delhi, and Rajasthan (Table-7 & 8).

Of the total Power Exchange transactions, top 5 states selling 72.79% of the volume are Chattisgarh, Karnataka, Jindal Power Ltd, Gujarat and Andhra Pradesh and top 5 states purchasing 94.05% of the volume are Rajasthan, Haryana, Maharashtra, Dadra & Nagar Haveli and Tamil Nadu (Table-9 & 10)

Of the total UI transactions, top 5 states exporting 37.65% of the volume are Chattisgarh, DVC, Bihar, Delhi and Gujarat and top 5 states importing 55.33% of the volume are Uttar Pradesh, West Bengal, Haryana, Tamil Nadu and Punjab (Table-11 & 12).

State-wise total net short-term transactions of electricity i.e. volume of net transactions through bilateral, power exchange and UI was shown in Table-13. Top 5 states those selling electricity are Himachal Pradesh, Chattisgarh, Jindal Power Ltd, J&K and Karnataka and top 5 states those purchasing electricity are Haryana, Punjab, Maharashtra, Uttar Pradesh and Rajasthan.

### **IV: Inferences:**

- The percentage of short-term transactions of electricity to total electricity generation was 8.09%.
- Of the total short-term transactions of electricity, 47.72% transacted through bilateral (through traders and directly by distribution companies) followed by 41.82% through UI and 10.45% through Power Exchanges.
- Top 5 trading licenses are having share of 87.42% in the total volume traded by all the trading licensees.
- The price of electricity transacted through Power Exchanges (Rs.7.39/KWh in IEX and Rs.9.60/KWh in PXIL) was relatively high and not comparable with the price of electricity transacted through Trading Licensees (Rs.5.05/KWh) and the price of electricity transacted through UI (around Rs.5.00/KWh).
- The HHI computed for volume of electricity traded by trading licensees was 0.33 and it shows high concentration/market power.

- The gap between the volume of buy bids and sale bids placed through power exchanges shows that there was more demand (1.24 times in IEX and in PXIL) when compared with the supply offered through the exchanges.
- Top 5 states those selling electricity are Himachal Pradesh, Chattisgarh, Jindal Power Ltd, J&K and Karnataka and top 5 states those purchasing electricity are Haryana, Punjab, Maharashtra, Uttar Pradesh and Rajasthan.

<b>VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (ALL INDIA) (MUs)</b>						<b>Total Electricity Generation (MUs) as given at CEA Website*</b>
<b>Month: June 2009</b>						
<b>Date</b>	<b>Bilateral</b>		<b>Power Exchange (Market Clearing Volume)</b>		<b>Unscheduled Interchange (Over Drawl+Under Generation)</b>	
	<b>Through Traders</b>	<b>Direct</b>	<b>IEX</b>	<b>PXI</b>		
1	61.10	12.91	2.92	0.00	74.41	2019.64
2	61.90	12.90	6.80	0.00	64.07	2075.21
3	54.51	13.86	4.57	0.00	72.28	2082.55
4	62.10	14.61	7.36	0.35	60.02	2079.41
5	61.36	14.17	9.55	0.00	61.76	2073.96
6	53.73	18.23	11.44	0.00	71.61	2062.79
7	51.21	21.74	12.75	0.35	69.99	2015.61
8	55.13	22.30	15.04	0.15	64.53	2080.23
9	56.43	18.29	16.89	0.00	63.77	2112.77
10	60.80	17.23	18.83	0.50	60.52	2120.47
11	61.63	16.98	18.34	0.61	56.43	2116.87
12	64.22	18.77	14.72	0.99	75.29	2118.39
13	67.91	18.92	14.74	1.92	83.30	2118.86
14	60.76	18.58	17.80	1.57	75.42	2069.28
15	66.35	19.59	16.17	1.39	79.21	2114.04
16	65.97	22.05	17.89	1.74	92.27	2105.68
17	70.59	22.83	13.31	0.00	71.40	2102.09
18	66.42	21.20	18.73	1.01	63.54	2101.60
19	67.42	21.65	13.93	1.51	66.81	2101.87
20	59.59	21.23	17.11	2.63	62.77	2109.43
21	60.38	19.87	22.09	3.16	65.96	2076.54
22	60.78	20.16	19.69	1.91	63.74	2107.23
23	62.98	20.12	20.04	0.88	63.16	2114.65
24	65.86	20.10	17.74	3.21	73.11	2107.24
25	64.23	20.89	20.33	4.43	82.22	2069.70
26	62.98	21.41	23.50	5.68	81.50	2102.56
27	60.67	20.82	26.44	5.55	67.21	2113.53
28	54.28	20.57	19.46	4.64	80.37	2032.27
29	61.71	21.11	21.57	3.97	77.57	2086.25
30	60.63	20.83	19.01	2.58	74.39	2054.92
<b>Total</b>	<b>1843.61</b>	<b>573.90</b>	<b>478.80</b>	<b>50.70</b>	<b>2118.63</b>	<b>62645.64</b>

Source: NLDC

\* Gross Electricity Generation excluding electricity generation from renewables and captive power plants

PRICE OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (Rs/KWh)												
Month: June 2009												
Market Segment	Power Exchange (IEX)			Power Exchange (PXIL)			Under Drawl/Over Drawl from the Grid (UI)					
Date	Minimum MCP	Maximum MCP	Weighted Average*	Minimum MCP	Maximum MCP	Weighted Average*	NEW Grid			SR Grid		
							Minimum Price	Maximum Price	Average Price**	Minimum Price	Maximum Price	Average Price**
1-Jun-09	0.36	3.49	1.71	0.00	0.00	0.00	0.00	6.33	2.86	0.60	6.84	3.70
2-Jun-09	0.13	2.10	1.45	0.00	0.00	0.00	0.36	7.35	3.67	0.00	7.35	4.64
3-Jun-09	0.98	2.90	2.02	0.00	0.00	0.00	0.72	6.84	3.45	0.00	7.35	4.74
4-Jun-09	0.71	2.90	2.07	2.20	6.75	2.50	0.00	7.35	4.27	0.96	7.35	5.25
5-Jun-09	2.00	5.00	3.19	0.00	0.00	0.00	0.00	6.50	3.78	0.60	7.35	5.02
6-Jun-09	1.98	5.00	3.65	0.00	0.00	0.00	0.00	5.99	2.63	0.24	7.35	3.45
7-Jun-09	1.70	4.15	2.67	3.50	4.72	4.39	0.00	4.80	2.58	0.48	5.82	2.50
8-Jun-09	1.21	5.00	3.63	2.50	4.72	4.72	1.08	7.35	3.46	1.44	7.35	4.29
9-Jun-09	0.70	4.15	2.95	0.00	0.00	0.00	1.68	7.35	4.81	1.80	7.35	5.53
10-Jun-09	2.05	5.20	3.83	2.90	5.30	4.86	2.40	7.35	5.62	2.28	7.35	6.30
11-Jun-09	3.30	6.50	4.96	2.90	5.50	5.09	2.40	7.35	5.72	0.00	7.35	5.12
12-Jun-09	3.00	7.50	5.84	2.90	6.50	5.85	2.40	7.35	5.21	0.96	7.35	3.93
13-Jun-09	2.25	8.00	5.98	2.50	8.00	7.40	1.44	7.35	4.36	0.48	5.82	3.43
14-Jun-09	2.90	8.00	5.06	2.20	8.00	6.40	0.60	6.50	3.28	0.00	5.48	3.43
15-Jun-09	4.30	8.50	6.35	2.40	7.92	7.14	0.60	7.35	3.74	1.68	7.35	5.21
16-Jun-09	2.40	7.75	5.92	4.70	7.93	6.92	0.84	7.35	4.25	2.28	7.35	5.62
17-Jun-09	0.75	6.30	4.19	0.00	0.00	0.00	4.32	7.35	6.86	2.76	7.35	6.29
18-Jun-09	2.40	8.00	5.91	2.40	6.95	6.65	4.80	7.35	7.14	2.76	7.35	6.57
19-Jun-09	5.60	9.35	7.45	2.00	8.25	7.23	2.28	7.35	6.94	3.84	7.35	6.77
20-Jun-09	7.00	10.00	8.87	7.68	9.31	8.58	0.84	7.35	6.20	1.92	7.35	6.48
21-Jun-09	9.00	10.20	9.72	7.68	9.39	8.97	1.32	7.35	5.34	0.00	7.35	5.23
22-Jun-09	10.20	11.10	10.71	7.81	9.90	9.21	3.96	7.35	6.27	0.84	7.35	5.54
23-Jun-09	9.00	11.50	11.09	9.80	11.50	10.62	3.84	7.35	6.73	3.48	7.35	6.16
24-Jun-09	9.50	12.00	11.30	9.52	10.88	10.75	3.84	7.35	6.61	3.60	7.35	6.52
25-Jun-09	9.00	12.75	11.85	9.55	11.77	11.12	3.36	7.35	7.04	1.92	7.35	5.67
26-Jun-09	8.75	13.50	12.23	10.50	12.35	11.63	3.36	7.35	6.52	0.96	7.35	5.47
27-Jun-09	8.50	13.50	11.75	9.85	12.22	11.66	2.88	7.35	6.19	1.44	7.35	5.74
28-Jun-09	4.50	13.50	8.48	9.14	12.37	11.39	1.92	7.35	4.67	0.00	7.01	4.53
29-Jun-09	3.76	13.50	9.89	6.90	11.45	10.02	1.32	7.35	4.73	0.36	7.35	5.22
30-Jun-09	4.00	13.65	9.41	5.85	10.75	9.12	0.00	7.35	3.18	0.00	7.35	4.71
	<b>0.13#</b>	<b>13.65#</b>	<b>7.39</b>	<b>2.00#</b>	<b>12.37#</b>	<b>9.60</b>	<b>0.00#</b>	<b>7.35#</b>	<b>4.94</b>	<b>0.00#</b>	<b>7.35#</b>	<b>5.10</b>

Source: Data on price of PX transactions from IEX and PXIL and data on UI Price from NLDC

\* Weighted average price computed based on Market Clearing Volume (MCV) and Market Clearing Price (MCP) for each hour of the day

\*\* Simple average price of UI of 96 time blocks of 15 minutes each in a day

# Maximum/Minimum in the month

VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (STATE-WISE) (MUs)										
Month: June 2009										
Name of the State/UT/Other Regional Entity	Through Bilateral			Through Power Exchange			Through UI with Regional Grid			Total Net**
	Sale	Purchase	Net*	Sale	Purchase	Net*	Export (Under Drawl)	Import (Over Drawl)	Net*	
Punjab	31.45	527.60	496.14	1.88	0.81	-1.07	52.17	99.45	47.28	542.35
Haryana	2.91	378.46	375.55	0.00	104.36	104.36	32.16	133.94	101.78	581.70
Rajasthan	120.40	268.49	148.08	13.60	242.12	228.52	88.68	69.90	-18.79	357.82
Delhi	17.87	330.39	312.52	25.91	2.52	-23.39	144.87	24.30	-120.57	168.56
Uttar Pradesh	4.84	41.77	36.93	0.00	0.00	0.00	13.78	405.59	391.81	428.73
Uttarakhand	38.49	0.00	-38.49	0.20	0.00	-0.20	24.83	38.58	13.75	-24.94
Himachal Pradesh	571.52	3.23	-568.30	17.39	0.00	-17.39	17.83	42.79	24.96	-560.73
J & K	325.33	0.00	-325.33	0.00	0.00	0.00	77.93	9.75	-68.17	-393.50
UT Chandigarh	0.00	5.25	5.25	0.00	0.00	0.00	1.06	21.32	20.26	25.51
MP	98.79	63.57	-35.22	20.91	0.00	-20.91	43.86	91.56	47.71	-8.43
Maharashtra	54.60	462.18	407.58	5.47	82.21	76.73	70.44	90.86	20.42	504.73
Gujarat	31.14	0.00	-31.14	40.96	0.69	-40.27	143.62	62.38	-81.25	-152.66
Chattisgarh	251.55	44.30	-207.25	161.97	0.00	-161.97	160.28	17.06	-143.22	-512.43
Daman and Diu	0.00	36.00	36.00	0.00	0.00	0.00	1.15	17.18	16.03	52.03
Dadra & Nagar Haveli	0.00	36.00	36.00	0.00	35.40	35.40	4.60	19.30	14.70	86.10
Andhra Pradesh	0.00	13.99	13.99	34.30	7.95	-26.35	111.55	30.13	-81.42	-93.78
Karnataka	133.57	0.00	-133.57	91.98	0.00	-91.98	20.78	66.86	46.08	-179.47
Kerala	107.19	28.64	-78.56	5.91	6.93	1.02	13.02	29.96	16.94	-60.59
Tamilnadu	13.97	111.02	97.06	0.00	33.92	33.92	39.95	122.38	82.43	213.40
Pondicherry	0.00	0.00	0.00	0.00	0.00	0.00	6.95	2.21	-4.75	-4.75
West Bengal	35.36	0.00	-35.36	26.53	2.15	-24.39	137.93	243.61	105.68	45.93
Orissa	0.00	14.63	14.63	0.00	0.00	0.00	132.70	8.18	-124.52	-109.89
Bihar	0.00	0.00	0.00	0.00	0.00	0.00	146.04	49.72	-96.32	-96.32
Jharkhand	0.00	0.00	0.00	5.27	0.00	-5.27	119.15	61.96	-57.19	-62.45
Sikkim	49.84	0.00	-49.84	9.45	0.00	-9.45	111.26	4.06	-107.20	-166.49
DVC	6.07	7.74	1.66	0.00	0.00	0.00	148.03	5.65	-142.38	-140.71
Arunachal Pradesh	4.60	0.00	-4.60	0.00	0.00	0.00	6.25	2.25	-4.00	-8.60
Assam	13.03	7.20	-5.83	0.10	10.06	9.96	24.09	9.70	-14.39	-10.26
Manipur	0.00	0.00	0.00	0.00	0.00	0.00	8.02	1.90	-6.13	-6.13
Meghalaya	0.66	0.00	-0.66	0.05	0.00	-0.05	8.18	2.73	-5.45	-6.15
Mizoram	0.00	0.00	0.00	0.00	0.39	0.39	3.32	0.98	-2.34	-1.95
Nagaland	0.00	0.00	0.00	0.00	0.00	0.00	5.54	1.20	-4.34	-4.34
Tripura	7.91	0.00	-7.91	2.22	0.00	-2.22	8.11	4.22	-3.89	-14.02
GOA	0.48	37.08	36.59	8.97	0.00	-8.97	11.84	9.06	-2.79	24.84
JINDAL POWER	388.55	0.00	-388.55	55.62	0.00	-55.62	32.84	15.46	-17.93	-462.10

Source: NLDC

\* (-) indicates sale and (+) indicates purchase

\*\* Total net includes net of transactions through bilateral, power exchange and UI

Table-1: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (ALL INDIA)				
Sr.No	Short-term transactions	Volume (MUs)	% to Volume of short-term transactions	% to Total Generation
1	Bilateral	2417.51	47.72%	3.86%
	(i) Through Traders	1843.61	36.39%	2.94%
	(ii) Direct	573.90	11.33%	0.92%
2	Through Power Exchange	529.49	10.45%	0.85%
3	Through UI	2118.63	41.82%	3.38%
	<b>Total</b>	<b>5065.63</b>	<b>100.00%</b>	<b>8.09%</b>
	<b>Total Generation</b>	<b>62645.64</b>		

Source: NLDC

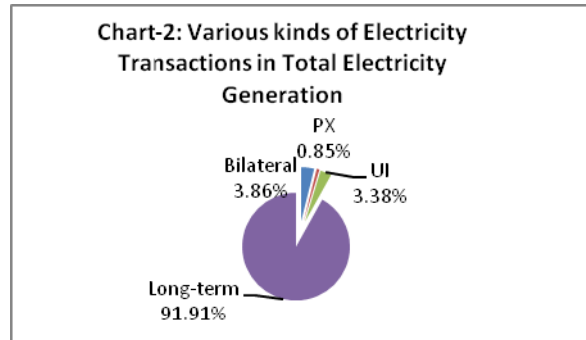
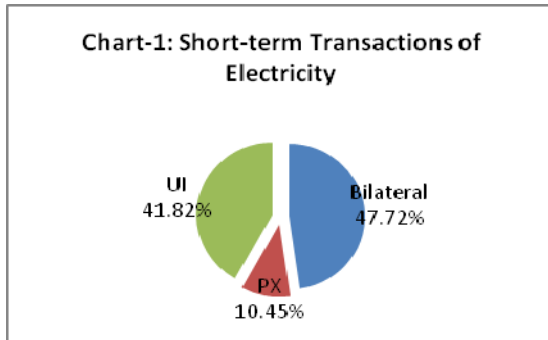
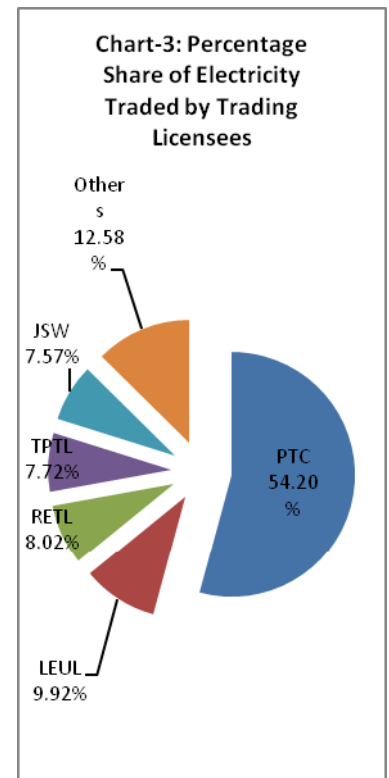


Table-2: Percentage Share of Electricity Traded by Trading Licensees			
Sr.No	Name of the Trading Licensee	% Share in total Volume traded by Licensees	HHI
1	PTC India Ltd	54.20%	0.29
2	Lanco Electric Utility Ltd	9.92%	0.01
3	Reliance Energy Trading (P) Ltd	8.02%	0.01
4	Tata Power Trading Company (P) Ltd	7.72%	0.01
5	JSW Power Trading Company Ltd	7.57%	0.01
6	NTPC Vidyut Vyapar Nigam Ltd	5.66%	0.00
7	Adani Enterprises Ltd	2.97%	0.00
8	Kalyani Power Development (P) Ltd	1.71%	0.00
9	GMR Energy Trading Ltd	1.15%	0.00
10	RPG Power Trading Company Ltd	0.65%	0.00
11	Instinct Advertisement & Marketing Ltd	0.41%	0.00
12	Mittal Processors (P) Ltd	0.03%	0.00
	<b>Total</b>	<b>100.00%</b>	<b>0.33</b>
	<b>Top 5 trading licensees</b>	<b>87.42%</b>	

Note: Percentage Share in total volume traded by licensees computed based on the volume which includes the volume traded by trading licensees through power exchanges also.

Source: Information submitted by trading licensees





<b>Table-3: PRICE OF POWER TRANSACTED THROUGH TRADERS</b>		
<b>Sr.No</b>	<b>Period of Trade</b>	<b>Weighted Average Sale Price (Rs)</b>
1	RTC	5.04
2	PEAK	6.44
3	OFF PEAK	5.07
	<b>Total</b>	<b>5.05</b>

Source: Information submitted by trading licensees

<b>Table-4: PRICE OF POWER TRANSACTED THROUGH TRADERS</b>		
<b>Sr.No</b>		<b>Sale Price (Rs/KWh)</b>
1	Minimum	1.84
2	Maximum	11.04
3	Weighted Average	<b>5.05</b>

Source: Information submitted by trading licensees

<b>Table-5: PRICE OF POWER TRANSACTED THROUGH POWER EXCHANGE (Rs/KWh)</b>			
<b>Sr.No</b>	<b>MCP</b>	<b>IEX</b>	<b>PXIL</b>
1	Minimum	0.13	2.00
2	Maximum	13.65	12.37
3	Weighted Average	7.39	9.60

Source: Information submitted by IEX and PXIL

<b>Table-6: PRICE OF POWER TRANSACTED THROUGH UI (Rs/KWh)</b>			
<b>Sr.No</b>		<b>NEW Grid</b>	<b>SR Grid</b>
1	Minimum	0.00	0.00
2	Maximum	7.35	7.35
3	Average	4.94	5.10

Source: NLDC

<b>Table-7: VOLUME OF ELECTRICITY SALE BY STATES THROUGH BILATERAL</b>		
<b>Name of the State/UT/Other Regional Entity</b>	<b>Volume of Sale (MUs)</b>	<b>% of Volume</b>
Himachal Pradesh	571.52	24.74%
JINDAL POWER	388.55	16.82%
J & K	325.33	14.08%
Chattisgarh	251.55	10.89%
Karnataka	133.57	5.78%
Rajasthan	120.40	5.21%
Kerala	107.19	4.64%
MP	98.79	4.28%
Maharashtra	54.60	2.36%
Sikkim	49.84	2.16%
Uttarakhand	38.49	1.67%
West Bengal	35.36	1.53%
Punjab	31.45	1.36%
Gujarat	31.14	1.35%
Delhi	17.87	0.77%
Tamilnadu	13.97	0.60%
Assam	13.03	0.56%
Tripura	7.91	0.34%
DVC	6.07	0.26%
Uttar Pradesh	4.84	0.21%
Arunachal Pradesh	4.60	0.20%
Haryana	2.91	0.13%
Meghalaya	0.66	0.03%
GOA	0.48	0.02%
UT Chandigarh	0.00	0.00%
Daman and Diu	0.00	0.00%
Dadra & Nagar Haveli	0.00	0.00%
Andhra Pradesh	0.00	0.00%
Pondicherry	0.00	0.00%
Orissa	0.00	0.00%
Bihar	0.00	0.00%
Jharkhand	0.00	0.00%
Manipur	0.00	0.00%
Mizoram	0.00	0.00%
Nagaland	0.00	0.00%
<b>Total</b>	<b>2310.12</b>	<b>100.00%</b>
<b>Volume of sale by top 5 States</b>	<b>1670.51</b>	<b>72.31%</b>

<b>Table-8: VOLUME OF ELECTRICITY PURCHASE BY STATES THROUGH BILATERAL</b>		
<b>Name of the State/UT/Other Regional Entity</b>	<b>Volume of Purchase (MUs)</b>	<b>% of Volume</b>
Punjab	527.60	21.82%
Maharashtra	462.18	19.12%
Haryana	378.46	15.66%
Delhi	330.39	13.67%
Rajasthan	268.49	11.11%
Tamilnadu	111.02	4.59%
MP	63.57	2.63%
Chattisgarh	44.30	1.83%
Uttar Pradesh	41.77	1.73%
GOA	37.08	1.53%
Daman and Diu	36.00	1.49%
Dadra & Nagar Haveli	36.00	1.49%
Kerala	28.64	1.18%
Orissa	14.63	0.61%
Andhra Pradesh	13.99	0.58%
DVC	7.74	0.32%
Assam	7.20	0.30%
UT Chandigarh	5.25	0.22%
Himachal Pradesh	3.23	0.13%
Uttarakhand	0.00	0.00%
J & K	0.00	0.00%
Gujarat	0.00	0.00%
Karnataka	0.00	0.00%
Pondicherry	0.00	0.00%
West Bengal	0.00	0.00%
Bihar	0.00	0.00%
Jharkhand	0.00	0.00%
Sikkim	0.00	0.00%
Arunachal Pradesh	0.00	0.00%
Manipur	0.00	0.00%
Meghalaya	0.00	0.00%
Mizoram	0.00	0.00%
Nagaland	0.00	0.00%
Tripura	0.00	0.00%
JINDAL POWER	0.00	0.00%
<b>Total</b>	<b>2417.51</b>	<b>100.00%</b>
<b>Volume of purchase by top 5 States</b>	<b>1967.11</b>	<b>81.37%</b>

<b>Table-9: VOLUME OF ELECTRICITY SALE BY STATES THROUGH POWER EXCHANGE</b>		
<b>Name of the State/UT/Other Regional Entity</b>	<b>Volume of Sale (MUs)</b>	<b>% of Volume</b>
Chattisgarh	161.97	30.64%
Karnataka	91.98	17.40%
JINDAL POWER	55.62	10.52%
Gujarat	40.96	7.75%
Andhra Pradesh	34.30	6.49%
West Bengal	26.53	5.02%
Delhi	25.91	4.90%
MP	20.91	3.96%
Himachal Pradesh	17.39	3.29%
Rajasthan	13.60	2.57%
Sikkim	9.45	1.79%
GOA	8.97	1.70%
Kerala	5.91	1.12%
Maharashtra	5.47	1.04%
Jharkhand	5.27	1.00%
Tripura	2.22	0.42%
Punjab	1.88	0.36%
Uttarakhand	0.20	0.04%
Assam	0.10	0.02%
Meghalaya	0.05	0.01%
Haryana	0.00	0.00%
Uttar Pradesh	0.00	0.00%
J & K	0.00	0.00%
UT Chandigarh	0.00	0.00%
Daman and Diu	0.00	0.00%
Dadra & Nagar Haveli	0.00	0.00%
Tamilnadu	0.00	0.00%
Pondicherry	0.00	0.00%
Orissa	0.00	0.00%
Bihar	0.00	0.00%
DVC	0.00	0.00%
Arunachal Pradesh	0.00	0.00%
Manipur	0.00	0.00%
Mizoram	0.00	0.00%
Nagaland	0.00	0.00%
<b>Total</b>	<b>528.68</b>	<b>100.00%</b>
<b>Volume of sale by top 5 States</b>	<b>384.83</b>	<b>72.79%</b>

<b>Table-10: VOLUME OF ELECTRICITY PURCHASE BY STATES THROUGH POWER EXCHANGE</b>		
<b>Name of the State/UT/Other Regional Entity</b>	<b>Volume of Purchase (MUs)</b>	<b>% of Volume</b>
Rajasthan	242.12	45.73%
Haryana	104.36	19.71%
Maharashtra	82.21	15.53%
Dadra & Nagar Haveli	35.40	6.69%
Tamilnadu	33.92	6.41%
Assam	10.06	1.90%
Andhra Pradesh	7.95	1.50%
Kerala	6.93	1.31%
Delhi	2.52	0.48%
West Bengal	2.15	0.41%
Punjab	0.81	0.15%
Gujarat	0.69	0.13%
Mizoram	0.39	0.07%
Uttar Pradesh	0.00	0.00%
Uttarakhand	0.00	0.00%
Himachal Pradesh	0.00	0.00%
J & K	0.00	0.00%
UT Chandigarh	0.00	0.00%
MP	0.00	0.00%
Chattisgarh	0.00	0.00%
Daman and Diu	0.00	0.00%
Karnataka	0.00	0.00%
Pondicherry	0.00	0.00%
Orissa	0.00	0.00%
Bihar	0.00	0.00%
Jharkhand	0.00	0.00%
Sikkim	0.00	0.00%
DVC	0.00	0.00%
Arunachal Pradesh	0.00	0.00%
Manipur	0.00	0.00%
Meghalaya	0.00	0.00%
Nagaland	0.00	0.00%
Tripura	0.00	0.00%
GOA	0.00	0.00%
JINDAL POWER	0.00	0.00%
<b>Total</b>	<b>529.49</b>	<b>100.00%</b>
<b>Volume of purchase by top 5 States</b>	<b>498.00</b>	<b>94.05%</b>

<b>Table-11: VOLUME OF ELECTRICITY EXPORT BY STATES THROUGH UI</b>		
<b>Name of the State/UT/Other Regional Entity</b>	<b>Volume of Export (MUs)</b>	<b>% of Volume</b>
Chattisgarh	160.28	8.12%
DVC	148.03	7.50%
Bihar	146.04	7.40%
Delhi	144.87	7.34%
Gujarat	143.62	7.28%
West Bengal	137.93	6.99%
Orissa	132.70	6.73%
Jharkhand	119.15	6.04%
Andhra Pradesh	111.55	5.65%
Sikkim	111.26	5.64%
Rajasthan	88.68	4.50%
J & K	77.93	3.95%
Maharashtra	70.44	3.57%
Punjab	52.17	2.64%
MP	43.86	2.22%
Tamilnadu	39.95	2.03%
JINDAL POWER	32.84	1.66%
Haryana	32.16	1.63%
Uttarakhand	24.83	1.26%
Assam	24.09	1.22%
Karnataka	20.78	1.05%
Himachal Pradesh	17.83	0.90%
Uttar Pradesh	13.78	0.70%
Kerala	13.02	0.66%
GOA	11.84	0.60%
Meghalaya	8.18	0.41%
Tripura	8.11	0.41%
Manipur	8.02	0.41%
Pondicherry	6.95	0.35%
Arunachal Pradesh	6.25	0.32%
Nagaland	5.54	0.28%
Dadra & Nagar Haveli	4.60	0.23%
Mizoram	3.32	0.17%
Daman and Diu	1.15	0.06%
UT Chandigarh	1.06	0.05%
<b>Total</b>	<b>1972.81</b>	<b>100.00%</b>
<b>Volume of Export by top 5 States</b>	<b>742.84</b>	<b>37.65%</b>

<b>Table-12: VOLUME OF ELECTRICITY IMPORT BY STATES THROUGH UI</b>		
<b>Name of the State/UT/Other Regional Entity</b>	<b>Volume of Import (MUs)</b>	<b>% of Volume</b>
Uttar Pradesh	405.59	22.33%
West Bengal	243.61	13.41%
Haryana	133.94	7.37%
Tamilnadu	122.38	6.74%
Punjab	99.45	5.48%
MP	91.56	5.04%
Maharashtra	90.86	5.00%
Rajasthan	69.90	3.85%
Karnataka	66.86	3.68%
Gujarat	62.38	3.43%
Jharkhand	61.96	3.41%
Bihar	49.72	2.74%
Himachal Pradesh	42.79	2.36%
Uttarakhand	38.58	2.12%
Andhra Pradesh	30.13	1.66%
Kerala	29.96	1.65%
Delhi	24.30	1.34%
UT Chandigarh	21.32	1.17%
Dadra & Nagar Haveli	19.30	1.06%
Daman and Diu	17.18	0.95%
Chattisgarh	17.06	0.94%
JINDAL POWER	15.46	0.85%
J & K	9.75	0.54%
Assam	9.70	0.53%
GOA	9.06	0.50%
Orissa	8.18	0.45%
DVC	5.65	0.31%
Tripura	4.22	0.23%
Sikkim	4.06	0.22%
Meghalaya	2.73	0.15%
Arunachal Pradesh	2.25	0.12%
Pondicherry	2.21	0.12%
Manipur	1.90	0.10%
Nagaland	1.20	0.07%
Mizoram	0.98	0.05%
<b>Total</b>	<b>1816.18</b>	<b>100.00%</b>
<b>Volume of Export by top 5 States</b>	<b>1004.97</b>	<b>55.33%</b>

<b>Table-13: TOTAL NET SHORT-TERM TRANSACTIONS (STATE-WISE)</b>		
<b>Sr.No</b>	<b>Name of the State/UT/Other Regional Entity</b>	<b>Total short-term transactions*</b>
1	Haryana	581.70
2	Punjab	542.35
3	Maharashtra	504.73
4	Uttar Pradesh	428.73
5	Rajasthan	357.82
6	Tamilnadu	213.40
7	Delhi	168.56
8	Dadra & Nagar Haveli	86.10
9	Daman and Diu	52.03
10	West Bengal	45.93
11	UT Chandigarh	25.51
12	GOA	24.84
13	Mizoram	-1.95
14	Nagaland	-4.34
15	Pondicherry	-4.75
16	Manipur	-6.13
17	Meghalaya	-6.15
18	MP	-8.43
19	Arunachal Pradesh	-8.60
20	Assam	-10.26
21	Tripura	-14.02
22	Uttarakhand	-24.94
23	Kerala	-60.59
24	Jharkhand	-62.45
25	Andhra Pradesh	-93.78
26	Bihar	-96.32
27	Orissa	-109.89
28	DVC	-140.71
29	Gujarat	-152.66
30	Sikkim	-166.49
31	Karnataka	-179.47
32	J & K	-393.50
33	JINDAL POWER	-462.10
34	Chattisgarh	-512.43
35	Himachal Pradesh	-560.73
* Total net short-term transactions includes net of transactions through bilateral, power exchange and UI		
(-) indicates sale and (+) indicates purchase		



