

**MONTHLY REPORT ON
SHORT-TERM TRANSACTIONS OF ELECTRICITY
(August 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 August 2009 is as under:

I: Volume of Short-term Transactions of Electricity

During the Month of August 2009, total electricity generation excluding generation from renewables and captive power plants in India was 65563.07 MUs (Table-1).

Of the total electricity generation, 5789.28 MUs (8.83%) transacted through short-term i.e. 3369.05 MUs (5.14%) through Bilateral (through traders and direct between distribution companies), followed by 1926.73 MUs (2.94%) through UI and 493.51 MUs (0.75%) through Power Exchanges (IEX and PXIL) (Table-1 & Chart-2).

Of the total short-term transactions, Bilateral constitute 58.19% (47.69% through traders and 10.50% direct between distribution companies) followed by 33.28% through UI and 8.52% through Power Exchanges (Table-1& Chart-1). Daily volume of short-term transactions is shown in Chart-3&4.

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-5. There are 38 trading licensees as on 31.8.2009, of which only 14 have engaged in trading during August 2009. The trading licensees are undertaking bilateral transactions as well as transactions on power exchanges. Here the volume of electricity traded by the licensees is exclusively

bilateral transactions. Top 5 trading licenses had a share of 89.79% 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 0.3357 shows high concentration/market power (Table-2).

The volume of electricity transacted through IEX and PXIL was 425.48 MUs and 68.03 MUs respectively. The volume of total Buy bids and Sale bids was 1030.50 MUs and 627.20 MUs respectively in IEX and 198.13 MUs and 170.81 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 (1.64 times in IEX and 1.16 times in PXIL) 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.4.64. 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.4.46, Rs.6.32 and Rs.5.77 respectively. Minimum and Maximum sale price was Rs.1.84 and Rs.10.44 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.0.80, Rs.17.00 and Rs.7.40 respectively in IEX and Rs.1.39, Rs.15.00 and Rs.6.15 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 price of UI includes ceiling UI Rate+40% additional UI charge. The average UI price was Rs.6.29 in the NEW Grid and Rs.5.85 in the SR Grid. The power deficit is more in the Southern Region when compared with other regions, however, the UI price was relatively low in the SR Grid when compared with the UI price in the NEW Grid. Minimum and Maximum price of UI was Rs.0.24 and Rs.10.29 respectively in the New Grid and Rs.0.00 and Rs.10.29 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/UT/Regional Entity -Wise):

Of the total bilateral transactions, top 5 states/UTs/regional entities selling 55.20% of the volume are Himachal Pradesh, J&K, Jindal Power Ltd, Madhya Pradesh and Karnataka and top 5 states/UTs/regional entities purchasing 83.16% of the volume are Punjab, Haryana, Delhi, Rajasthan and Maharashtra (Table-7 & 8).

Of the total Power Exchange transactions, top 5 states/UTs/regional entities selling 71.89% of the volume are Chattisgarh, Karnataka, Gujarat, Sikkim and Jindal Power Ltd and top 5 states/UTs/regional entities purchasing 82.90% of the volume are Rajasthan, Delhi, Andhra Pradesh, Dadra & Nagar Haveli and Kerala (Table-9 & 10)

Of the total UI transactions, top 5 states/UTs/regional entities exporting 46.88% of the volume are LANCO Amarkantak (P) Ltd, Gujarat, Delhi, Punjab and Maharashtra and top 5 states/UTs/regional entities importing 52.58% of the volume are Uttar Pradesh, Haryana, Andhra Pradesh, Gujarat and Orissa (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/UTs/regional entities those selling electricity are Himachal Pradesh, Jindal Power Ltd, J&K, Karnataka and Chattisgarh and top 5 states/UTs/regional entities those purchasing electricity are Punjab, Haryana, Uttar Pradesh, Delhi and Rajasthan.

IV: Inferences:

- The percentage of short-term transactions of electricity to total electricity generation was 8.83%.
- Of the total short-term transactions of electricity, 58.19% transacted through bilateral (through traders and directly by distribution companies) followed by 33.28% through UI and 8.52% through Power Exchanges.
- Top 5 trading licenses are having share of 89.79% in the total volume traded by all the trading licensees.
- The weighted average price of electricity transacted through Trading Licensees (Rs.4.64/Kwh) was relatively low when compared with the weighted average price of electricity transacted through Power Exchanges (Rs.7.40/Kwh in IEX and

Rs.6.15/Kwh in PXIL) and the average price of electricity transacted through UI (Rs.6.29/Kwh in New Grid and Rs.5.85/Kwh in SR Grid).

- Between 10th and 13th of August 2009, the daily weighted average price of electricity transacted on both the exchanges was significantly higher (i.e. from Rs.11.04/kwh to 14.41/kwh in IEX and from Rs.8.24/kwh to Rs.11.02/kwh in PXIL) than the monthly weighted average price (i.e. Rs.7.40/kwh in IEX and Rs.6.15/kwh in PXIL).
- The HHI computed for volume of electricity traded by trading licensees was 0.3357 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 (1.64 times in IEX and 1.16 times in PXIL) when compared with the supply offered through the exchanges.
- Top 5 states/UTs/regional entities those selling electricity are Himachal Pradesh, Jindal Power Ltd, J&K, Karnataka and Chattisgarh and top 5 states/UTs/regional entities those purchasing electricity are Punjab, Haryana, Uttar Pradesh, Delhi and Rajasthan.

VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (ALL INDIA) (MUs)						Total Electricity Generation (MUs) as given at CEA Website*
Month: Aug 2009						
Date	Bilateral		Power Exchange (Market Clearing Volume)		Unscheduled Interchange (Over Drawl+Under Generation)	
	Through Traders	Direct	IEX	PXI		
1	86.84	18.65	12.47	3.44	61.71	2057.66
2	81.97	17.45	9.42	2.65	71.79	2024.18
3	94.77	18.09	16.00	3.93	53.81	2099.04
4	91.28	18.08	15.56	4.92	53.77	2110.95
5	89.80	16.29	15.58	4.06	68.54	2117.60
6	84.16	17.31	23.53	5.32	62.25	2110.84
7	89.97	17.28	19.38	2.55	57.66	2123.86
8	88.42	17.97	17.48	3.78	51.14	2123.49
9	86.94	18.21	15.57	2.14	56.76	2124.61
10	89.22	18.05	13.25	1.63	49.32	2177.53
11	86.76	17.56	15.86	1.87	53.77	2153.77
12	87.54	17.59	13.65	2.10	50.62	2172.65
13	85.03	18.08	18.44	2.07	56.17	2183.28
14	88.04	17.46	17.56	1.73	60.17	2168.55
15	85.85	17.56	13.65	1.87	81.61	2154.38
16	81.35	17.54	12.83	2.26	77.34	2071.66
17	87.78	18.05	10.96	1.78	62.68	2117.90
18	89.69	18.52	11.16	0.74	58.00	2133.34
19	93.03	18.00	11.62	0.64	59.45	2131.38
20	93.62	18.12	9.36	0.24	58.43	2140.04
21	90.83	18.03	12.29	2.02	59.09	2134.32
22	89.56	18.48	13.68	1.43	62.52	2124.34
23	89.54	20.64	14.66	1.51	63.01	2090.60
24	89.97	24.39	13.00	1.91	59.92	2088.08
25	92.44	24.83	12.96	1.42	58.67	2104.41
26	87.07	24.93	11.03	2.18	63.46	2088.93
27	98.08	24.94	12.21	1.73	60.42	2117.59
28	94.84	24.20	11.63	2.52	67.09	2120.54
29	91.86	24.71	12.22	1.75	63.80	2100.93
30	89.68	22.62	10.54	1.32	86.45	2043.51
31	85.21	24.30	7.93	0.53	77.31	2053.11
Total	2761.13	607.92	425.48	68.03	1926.73	65563.07

Source: NLDC

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

PRICE OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (Rs/KWh)												
Month: Aug 2009												
Market Segment	Power Exchange (IEX)			Power Exchange (PXIL)			Under Drawl/Over Draw 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-Aug-09	3.00	5.02	3.82	1.75	4.25	3.75	3.96	10.29	6.50	0.00	7.18	5.03
2-Aug-09	3.87	5.00	4.66	2.94	5.00	3.79	2.40	10.29	6.07	0.00	6.50	4.43
3-Aug-09	5.00	6.11	5.69	3.00	6.11	4.81	4.32	10.29	8.45	1.68	10.29	5.16
4-Aug-09	5.70	7.00	6.29	3.00	7.10	5.40	4.68	10.29	7.98	2.76	10.29	5.55
5-Aug-09	5.00	7.10	6.19	3.50	6.85	5.55	2.52	10.29	5.79	2.52	10.29	5.75
6-Aug-09	4.60	7.81	6.67	3.25	7.81	5.63	3.84	10.29	6.46	2.16	10.29	5.73
7-Aug-09	4.16	8.00	6.53	3.55	8.56	5.41	3.96	10.29	8.27	2.64	10.29	6.11
8-Aug-09	4.25	9.00	7.48	2.49	6.25	5.01	5.82	10.29	9.76	2.64	10.29	7.28
9-Aug-09	6.50	9.50	8.66	3.34	8.41	5.63	4.20	10.29	8.43	0.00	10.29	5.77
10-Aug-09	8.55	12.50	11.04	4.75	10.13	9.37	4.56	10.29	9.20	2.52	10.29	6.50
11-Aug-09	11.50	13.50	12.76	4.51	13.05	8.24	5.65	10.29	9.42	3.72	10.29	7.54
12-Aug-09	13.50	15.00	14.41	4.46	14.63	11.02	5.48	10.29	9.56	3.60	10.29	7.92
13-Aug-09	7.14	17.00	14.05	6.00	15.00	9.79	4.44	10.29	8.40	4.44	10.29	8.03
14-Aug-09	5.10	15.00	8.55	6.28	8.50	7.69	2.64	10.29	6.48	4.08	10.29	7.73
15-Aug-09	3.00	16.00	5.32	4.37	6.72	5.27	0.24	10.29	3.94	2.76	10.29	5.36
16-Aug-09	1.50	5.00	3.68	3.75	6.30	4.34	0.84	10.29	3.36	2.40	10.29	4.86
17-Aug-09	2.75	4.50	3.71	3.50	4.00	3.62	1.44	10.29	4.24	2.40	10.29	5.59
18-Aug-09	2.75	5.50	3.78	1.46	7.47	5.66	2.76	10.29	5.95	3.60	10.29	6.72
19-Aug-09	3.00	7.50	4.36	1.46	6.78	4.24	2.64	10.29	6.40	4.80	10.29	8.42
20-Aug-09	4.16	9.53	5.79	4.42	8.71	5.52	3.00	10.29	6.51	4.44	10.29	8.04
21-Aug-09	4.61	11.00	6.97	4.50	8.67	6.54	2.28	10.29	6.30	3.96	10.29	7.15
22-Aug-09	5.22	12.50	7.29	5.57	12.10	7.96	4.68	10.29	8.81	2.88	10.29	5.92
23-Aug-09	5.00	12.50	7.54	5.11	12.50	7.39	2.04	10.29	6.21	0.84	10.29	4.95
24-Aug-09	6.00	14.00	9.09	5.54	12.05	7.76	2.64	10.29	7.56	0.60	7.18	4.39
25-Aug-09	3.00	14.50	9.17	4.96	12.25	7.67	1.80	10.29	5.96	0.00	10.29	4.96
26-Aug-09	5.50	15.00	9.60	5.25	12.25	8.67	2.16	10.29	5.34	1.32	7.18	4.65
27-Aug-09	4.50	15.50	9.17	3.50	13.00	7.39	1.80	10.29	4.19	1.44	10.29	4.33
28-Aug-09	3.00	12.00	6.58	3.00	10.75	7.15	0.84	6.33	3.43	2.16	10.29	4.54
29-Aug-09	3.00	10.50	5.48	3.50	8.93	6.46	1.32	10.29	0.40	0.60	10.29	4.91
30-Aug-09	2.44	6.00	3.69	2.45	8.42	5.29	0.24	5.14	2.17	0.00	5.82	3.97
31-Aug-09	0.80	5.50	2.48	1.39	3.50	3.01	0.84	6.67	3.34	0.48	6.67	3.97
	0.80#	17.00#	7.40	1.39#	15.00#	6.15	0.24#	10.29#	6.29	0.00#	10.29#	5.85

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. UI price includes Ceiling UI Rate+ 40% additional UI charge.

Maximum/Minimum in the month

VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (STATE/UT/REGIONAL ENTITY-WISE) (MUs)										
Month: Aug 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	33.18	1073.73	1040.54	1.87	2.14	0.27	119.66	44.24	-75.43	965.39
Haryana	0.00	802.41	802.41	0.00	32.34	32.34	11.31	140.01	128.70	963.45
Rajasthan	117.22	351.68	234.46	11.58	177.33	165.75	56.01	57.21	1.20	401.41
Delhi	25.53	443.41	417.87	12.51	80.41	67.89	128.11	46.05	-82.06	403.71
Uttar Pradesh	12.77	39.44	26.66	0.00	0.00	0.00	1.61	629.33	627.72	654.38
Uttarakhand	12.95	0.00	-12.95	0.00	1.01	1.01	15.97	59.91	43.94	32.01
Himachal Pradesh	699.65	0.00	-699.65	11.22	0.00	-11.22	16.72	33.01	16.29	-694.59
J & K	337.79	11.26	-326.53	0.00	0.00	0.00	52.47	26.04	-26.43	-352.96
UT Chandigarh	0.00	6.78	6.78	0.00	0.00	0.00	2.92	20.98	18.05	24.84
MP	272.85	0.00	-272.85	15.99	0.00	-15.99	42.20	48.09	5.89	-282.96
Maharashtra	62.22	251.40	189.17	18.53	30.98	12.46	106.94	75.17	-31.77	169.86
Gujarat	124.00	31.82	-92.18	58.58	14.09	-44.49	162.88	86.52	-76.37	-213.04
Chattisgarh	180.29	0.00	-180.29	102.73	0.00	-102.73	72.91	62.12	-10.79	-293.81
Daman and Diu	0.00	74.40	74.40	0.00	1.51	1.51	4.27	11.58	7.31	83.22
Dadra & Nagar Haveli	0.00	74.40	74.40	0.00	47.72	47.72	8.00	9.46	1.47	123.59
Andhra Pradesh	109.02	151.36	42.34	14.99	59.38	44.39	25.66	102.49	76.83	163.56
Karnataka	245.90	0.00	-245.90	85.71	0.00	-85.71	21.48	50.39	28.91	-302.70
Kerala	111.50	16.44	-95.06	0.00	44.25	44.25	10.00	20.61	10.60	-40.20
Tamilnadu	223.07	136.71	-86.36	0.00	0.00	0.00	90.07	51.50	-38.56	-124.92
Pondicherry	0.00	0.00	0.00	0.00	0.00	0.00	3.89	5.20	1.32	1.32
West Bengal	152.23	2.48	-149.75	30.91	0.00	-30.91	11.44	83.20	71.76	-108.90
Orissa	67.09	11.72	-55.37	0.00	1.31	1.31	39.24	86.50	47.26	-6.80
Bihar	0.00	0.00	0.00	0.00	0.00	0.00	33.87	24.62	-9.25	-9.25
Jharkhand	0.00	0.00	0.00	0.00	0.00	0.00	3.70	53.76	50.06	50.06
Sikkim	0.00	6.44	6.44	56.65	0.00	-56.65	2.63	21.36	18.73	-31.48
DVC	27.06	1.80	-25.26	0.00	0.00	0.00	105.87	7.69	-98.18	-123.44
Arunachal Pradesh	16.43	0.00	-16.43	0.00	0.00	0.00	7.99	1.21	-6.78	-23.21
Assam	58.10	0.00	-58.10	0.50	0.00	-0.50	18.67	11.58	-7.10	-65.69
Manipur	0.00	0.00	0.00	0.00	0.00	0.00	18.67	0.09	-18.58	-18.58
Meghalaya	4.55	0.00	-4.55	7.67	0.00	-7.67	15.07	0.69	-14.38	-26.60
Mizoram	0.00	0.00	0.00	2.04	0.00	-2.04	8.15	0.15	-7.99	-10.04
Nagaland	13.06	0.00	-13.06	0.00	0.00	0.00	4.05	1.97	-2.08	-15.14
Tripura	16.85	6.76	-10.09	2.73	1.03	-1.70	8.55	2.00	-6.55	-18.35
GOA TOTAL	0.00	20.00	20.00	9.84	0.00	-9.84	7.77	16.31	8.54	18.70
JINDAL POWER	283.35	0.00	-283.35	55.41	0.00	-55.41	63.29	25.08	-45.26	-384.02
LANKO_AMK	0.00	0.00	0.00	0.00	0.00	0.00	188.00	0.00	-188.00	-188.00
MUNDRA APL	126.00	0.00	0.00	0.00	0.00	0.00	15.02	71.24	56.22	56.22

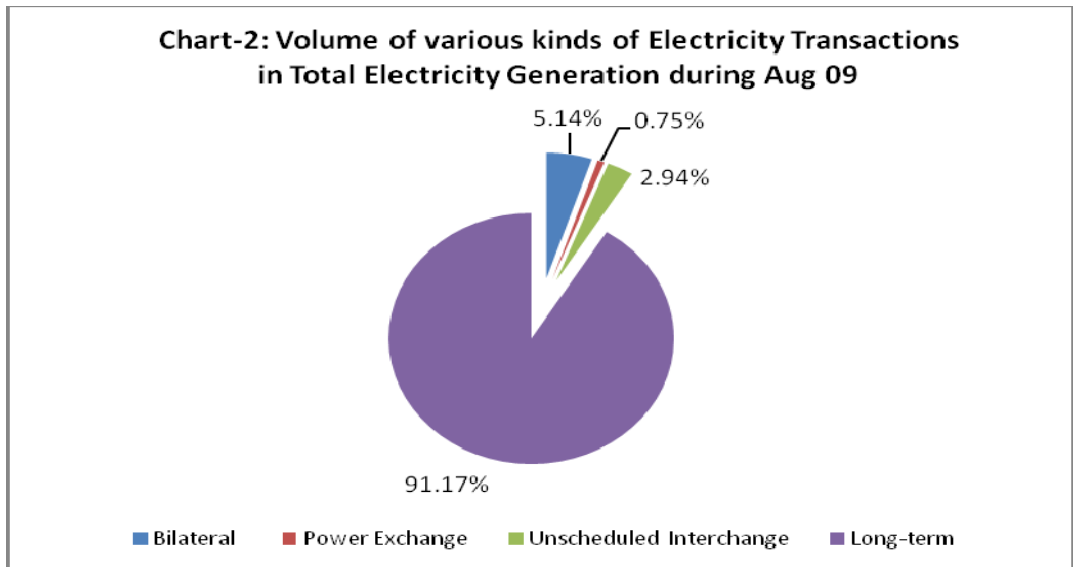
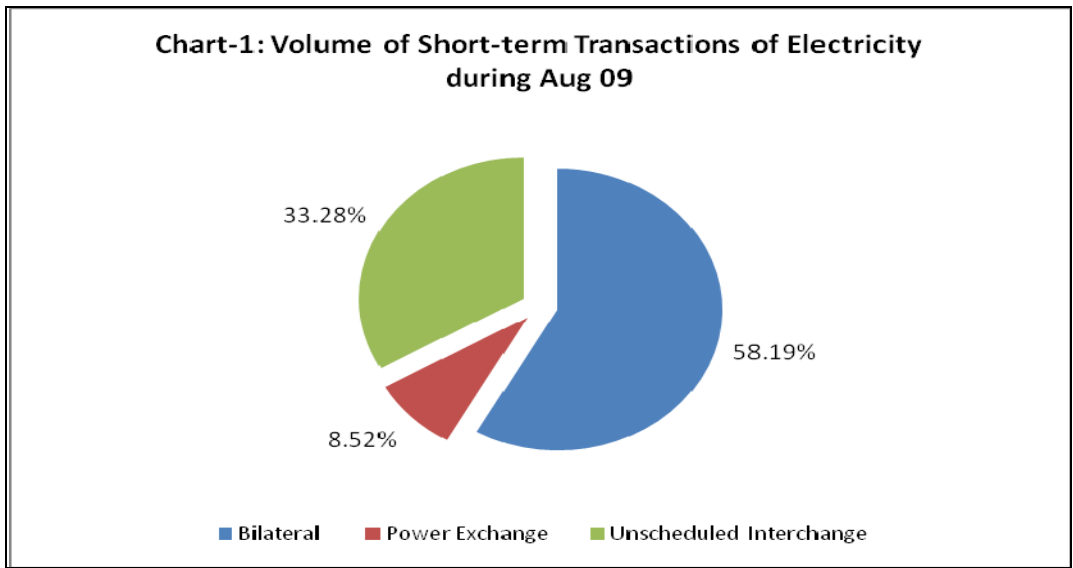
Source: NLDC

* (-) 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) DURING AUG 2009				
Sr.No	Short-term transactions	Volume (MUs)	% to Volume of short-term transactions	% to Total Generation
1	Bilateral	3369.05	58.19%	5.14%
	(i) Through Traders	2761.13	47.69%	4.21%
	(ii) Direct	607.92	10.50%	0.93%
2	Through Power Exchange	493.51	8.52%	0.75%
3	Through UI	1926.73	33.28%	2.94%
	Total	5789.28	100.00%	8.83%
	Total Generation	65563.07		

Source: NLDC



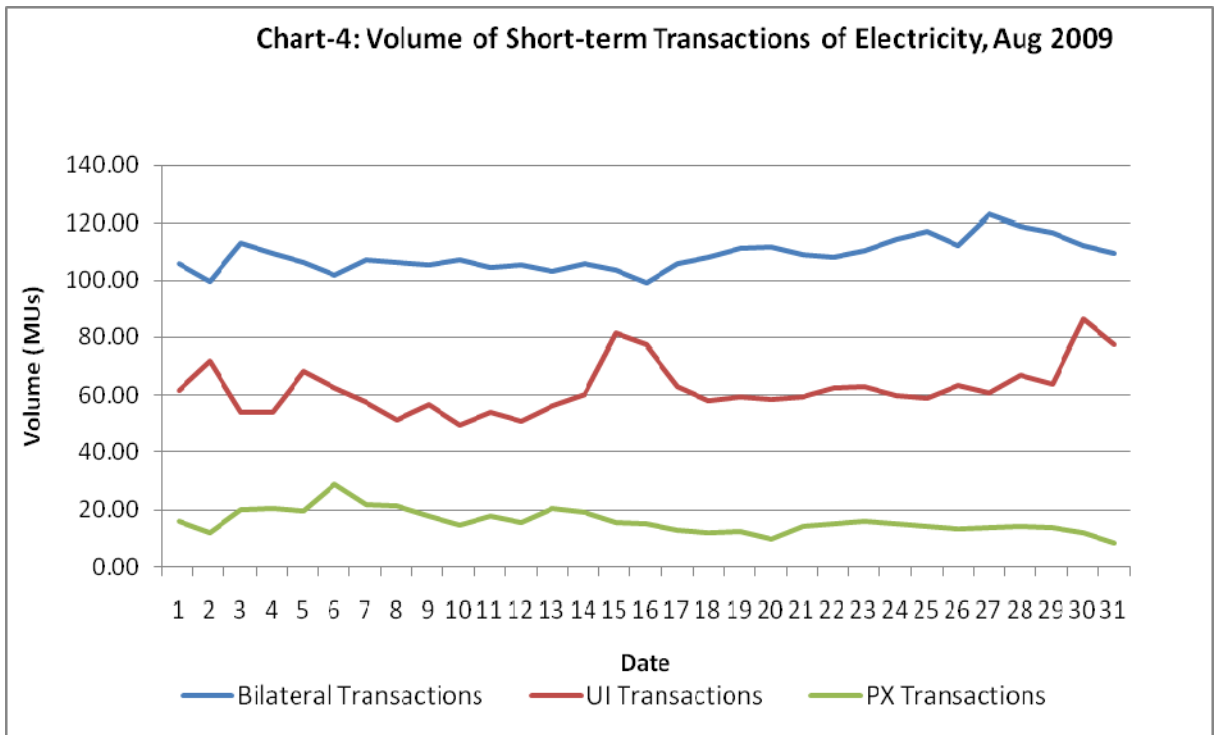
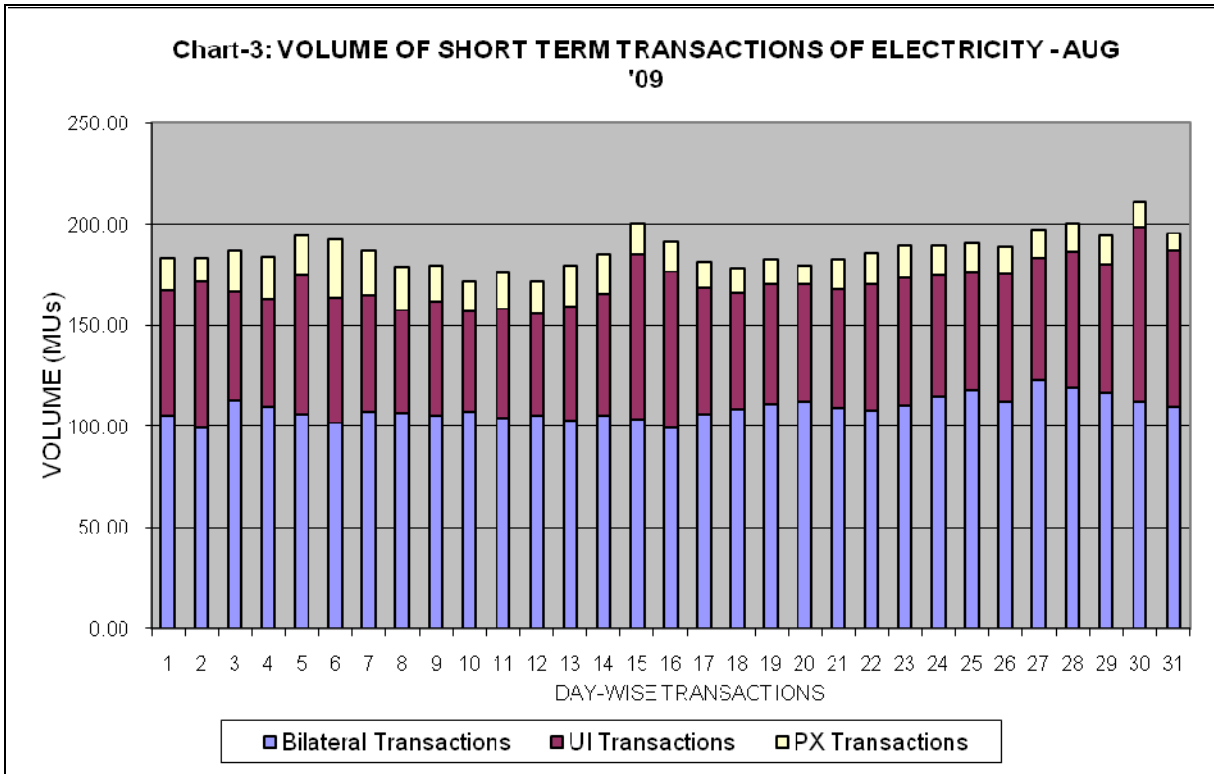


Table-2: Percentage Share of Electricity Traded by Trading Licensees during Aug 2009

Sr.No	Name of the Trading Licensee	% Share in total Volume traded by Licensees	HHI
1	PTC India Ltd	54.58%	0.2979
2	NTPC Vidyut Vyapar Nigam Ltd	13.62%	0.0186
3	Lanco Electric Utility Ltd	9.66%	0.0093
4	Tata Power Trading Company (P) Ltd	7.52%	0.0057
5	JSW Power Trading Company Ltd	4.41%	0.0019
6	Adani Enterprises Ltd	3.38%	0.0011
7	Reliance Energy Trading (P) Ltd	2.40%	0.0006
8	GMR Energy Trading Ltd	1.65%	0.0003
9	Mittal Processors (P) Ltd	1.41%	0.0002
10	RPG Power Trading Company Ltd	0.88%	0.0001
11	Instinct Advertisement & Marketing Ltd	0.28%	0.0000
12	Vinergy International (P) Ltd	0.21%	0.0000
13	Kalyani Power Development (P) Ltd	0.00%	0.0000
14	Knowledge Infrastructure Systems (P) Ltd	0.00%	0.0000
	Total	100.00%	0.3357
	Top 5 trading licensees	89.79%	

Note: Volume of electricity traded by the licensees is exclusively bilateral transactions and not the transactions undertaken through power exchanges.

Source: Information submitted by trading licensees

Chart-5: Percentage Share of Electricity Traded by Trading Licensees during Aug 09

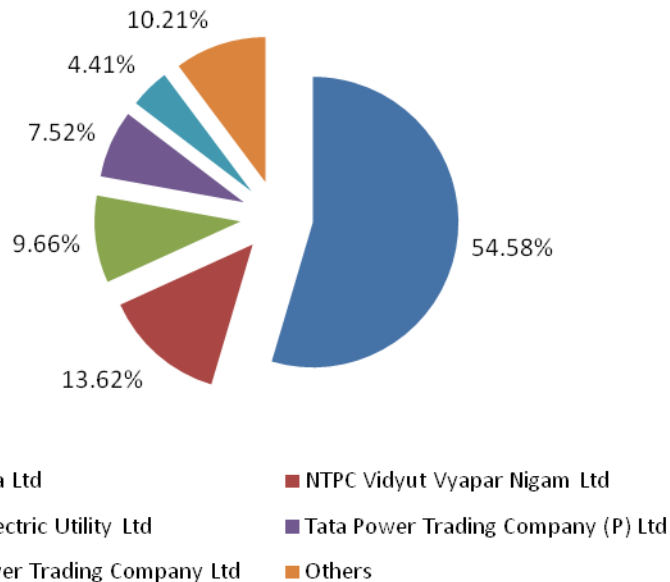


Table-3: PRICE OF POWER TRANSACTED THROUGH TRADERS		
Sr.No	Period of Trade	Weighted Average Sale Price (Rs)
1	RTC	4.46
2	PEAK	6.32
3	OFF PEAK	5.77
	Total	4.64

Source: Information submitted by trading licensees

Table-4: PRICE OF POWER TRANSACTED THROUGH TRADERS		
Sr.No		Sale Price (Rs/KWh)
1	Minimum	1.84
2	Maximum	10.44
3	Weighted Average	4.64

Source: Information submitted by trading licensees

Table-5: PRICE OF POWER TRANSACTED THROUGH POWER EXCHANGE (Rs/KWh)			
Sr.No	MCP	IEX	PXIL
1	Minimum	0.80	1.39
2	Maximum	17.00	15.00
3	Weighted Average	7.40	6.15

Source: Information submitted by IEX and PXIL

Table-6: PRICE OF POWER TRANSACTED THROUGH UI (Rs/KWh)			
Sr.No		NEW Grid	SR Grid
1	Minimum	0.24	0.00
2	Maximum	10.29	10.29
3	Average	6.29	5.85

Source: NLDC

Chart-6: PRICE OF SHORT TERM TRANSACTIONS OF ELECTRICITY - AUG '09

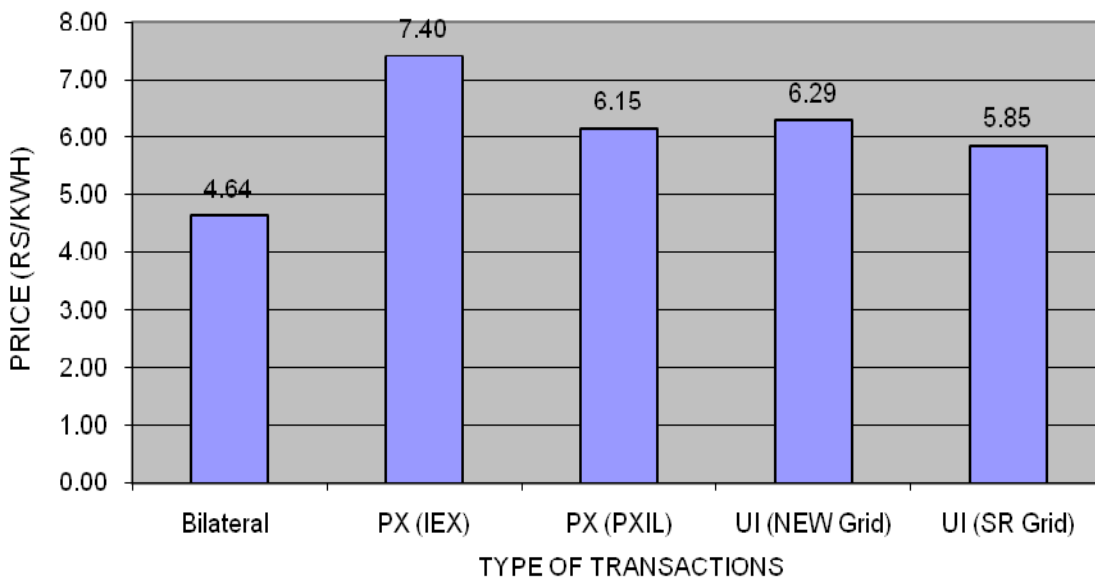


Chart-7: Price of Short-term Transactions of Electricity, Aug 2009

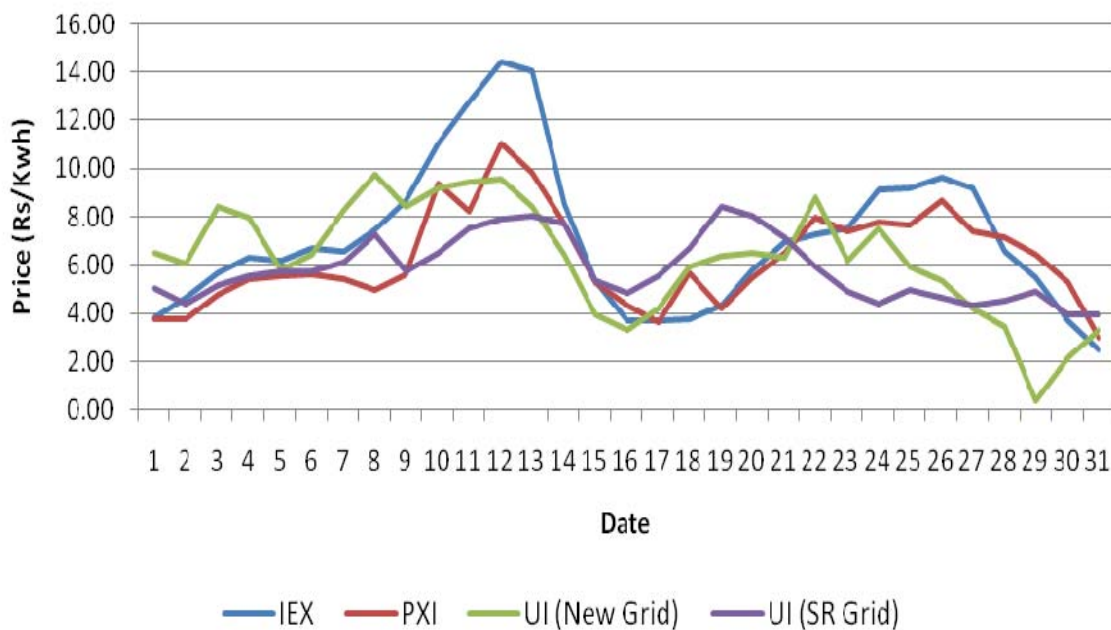


Table-7: VOLUME OF ELECTRICITY SALE THROUGH BILATERAL		
Name of the State/UT/Other Regional Entity	Volume of Sale (MUs)	% of Volume
Himachal Pradesh	699.65	20.99%
J & K	337.79	10.14%
JINDAL POWER	283.35	8.50%
MP	272.85	8.19%
Karnataka	245.90	7.38%
Tamilnadu	223.07	6.69%
Chattisgarh	180.29	5.41%
West Bengal	152.23	4.57%
MUNDRA APL	126.00	3.78%
Gujarat	124.00	3.72%
Rajasthan	117.22	3.52%
Kerala	111.50	3.35%
Andhra Pradesh	109.02	3.27%
Orissa	67.09	2.01%
Maharashtra	62.22	1.87%
Assam	58.10	1.74%
Punjab	33.18	1.00%
DVC	27.06	0.81%
Delhi	25.53	0.77%
Tripura	16.85	0.51%
Arunachal Pradesh	16.43	0.49%
Nagaland	13.06	0.39%
Uttarakhand	12.95	0.39%
Uttar Pradesh	12.77	0.38%
Meghalaya	4.55	0.14%
Haryana	0.00	0.00%
UT Chandigarh	0.00	0.00%
Daman and Diu	0.00	0.00%
Dadra & Nagar Haveli	0.00	0.00%
Pondicherry	0.00	0.00%
Bihar	0.00	0.00%
Jharkhand	0.00	0.00%
Sikkim	0.00	0.00%
Manipur	0.00	0.00%
Mizoram	0.00	0.00%
GOA TOTAL	0.00	0.00%
LANKO_AMK	0.00	0.00%
Total	3332.65	100.00%
Volume of sale by top 5 States	1839.54	55.20%

Table-8: VOLUME OF ELECTRICITY PURCHASE THROUGH BILATERAL		
Name of the State/UT/Other Regional Entity	Volume of Purchase (MUs)	% of Volume
Punjab	1073.73	30.55%
Haryana	802.41	22.83%
Delhi	443.41	12.62%
Rajasthan	351.68	10.01%
Maharashtra	251.40	7.15%
Andhra Pradesh	151.36	4.31%
Tamilnadu	136.71	3.89%
Daman and Diu	74.40	2.12%
Dadra & Nagar Haveli	74.40	2.12%
Uttar Pradesh	39.44	1.12%
Gujarat	31.82	0.91%
GOA TOTAL	20.00	0.57%
Kerala	16.44	0.47%
Orissa	11.72	0.33%
J & K	11.26	0.32%
UT Chandigarh	6.78	0.19%
Tripura	6.76	0.19%
Sikkim	6.44	0.18%
West Bengal	2.48	0.07%
DVC	1.80	0.05%
Uttarakhand	0.00	0.00%
Himachal Pradesh	0.00	0.00%
MP	0.00	0.00%
Chattisgarh	0.00	0.00%
Karnataka	0.00	0.00%
Pondicherry	0.00	0.00%
Bihar	0.00	0.00%
Jharkhand	0.00	0.00%
Arunachal Pradesh	0.00	0.00%
Assam	0.00	0.00%
Manipur	0.00	0.00%
Meghalaya	0.00	0.00%
Mizoram	0.00	0.00%
Nagaland	0.00	0.00%
JINDAL POWER	0.00	0.00%
LANKO_AMK	0.00	0.00%
MUNDRA APL	0.00	0.00%
Total	3514.43	100.00%
Volume of purchase by top 5 States	2922.63	83.16%

Table-9: VOLUME OF ELECTRICITY SALE THROUGH POWER EXCHANGE		
Name of the State/UT/Other Regional Entity	Volume of Sale (MUs)	% of Volume
Chattisgarh	102.73	20.57%
Karnataka	85.71	17.16%
Gujarat	58.58	11.73%
Sikkim	56.65	11.34%
JINDAL POWER	55.41	11.09%
West Bengal	30.91	6.19%
Maharashtra	18.53	3.71%
MP	15.99	3.20%
Andhra Pradesh	14.99	3.00%
Delhi	12.51	2.51%
Rajasthan	11.58	2.32%
Himachal Pradesh	11.22	2.25%
GOA TOTAL	9.84	1.97%
Meghalaya	7.67	1.54%
Tripura	2.73	0.55%
Mizoram	2.04	0.41%
Punjab	1.87	0.37%
Assam	0.50	0.10%
Haryana	0.00	0.00%
Uttar Pradesh	0.00	0.00%
Uttarakhand	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%
Kerala	0.00	0.00%
Tamilnadu	0.00	0.00%
Pondicherry	0.00	0.00%
Orissa	0.00	0.00%
Bihar	0.00	0.00%
Jharkhand	0.00	0.00%
DVC	0.00	0.00%
Arunachal Pradesh	0.00	0.00%
Manipur	0.00	0.00%
Nagaland	0.00	0.00%
LANKO_AMK	0.00	0.00%
MUNDRA APL	0.00	0.00%
Total	499.47	100.00%
Volume of sale by top 5 States	359.08	71.89%

Table-10: VOLUME OF ELECTRICITY PURCHASE THROUGH POWER EXCHANGE		
Name of the State/UT/Other Regional Entity	Volume of Purchase (MUs)	% of Volume
Rajasthan	177.33	35.93%
Delhi	80.41	16.29%
Andhra Pradesh	59.38	12.03%
Dadra & Nagar Haveli	47.72	9.67%
Kerala	44.25	8.97%
Haryana	32.34	6.55%
Maharashtra	30.98	6.28%
Gujarat	14.09	2.85%
Punjab	2.14	0.43%
Daman and Diu	1.51	0.31%
Orissa	1.31	0.27%
Tripura	1.03	0.21%
Uttarakhand	1.01	0.21%
Uttar Pradesh	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%
Karnataka	0.00	0.00%
Tamilnadu	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%
DVC	0.00	0.00%
Arunachal Pradesh	0.00	0.00%
Assam	0.00	0.00%
Manipur	0.00	0.00%
Meghalaya	0.00	0.00%
Mizoram	0.00	0.00%
Nagaland	0.00	0.00%
GOA TOTAL	0.00	0.00%
JINDAL POWER	0.00	0.00%
LANKO_AMK	0.00	0.00%
MUNDRA APL	0.00	0.00%
Total	493.51	100.00%
Volume of purchase by top 5 States	409.09	82.90%

Table-11: VOLUME OF ELECTRICITY EXPORT THROUGH UI		
Name of the State/UT/Other Regional Entity	Volume of Export (MUs)	% of Volume
LANKO_AMK	188.00	12.49%
Gujarat	162.88	10.82%
Delhi	128.11	8.51%
Punjab	119.66	7.95%
Maharashtra	106.94	7.11%
DVC	105.87	7.03%
Tamilnadu	90.07	5.98%
Chattisgarh	72.91	4.84%
JINDAL POWER	63.29	4.21%
Rajasthan	56.01	3.72%
J & K	52.47	3.49%
MP	42.20	2.80%
Orissa	39.24	2.61%
Bihar	33.87	2.25%
Andhra Pradesh	25.66	1.70%
Karnataka	21.48	1.43%
Manipur	18.67	1.24%
Assam	18.67	1.24%
Himachal Pradesh	16.72	1.11%
Uttarakhand	15.97	1.06%
Meghalaya	15.07	1.00%
MUNDRA APL	15.02	1.00%
West Bengal	11.44	0.76%
Haryana	11.31	0.75%
Kerala	10.00	0.66%
Tripura	8.55	0.57%
Mizoram	8.15	0.54%
Dadra & Nagar Haveli	8.00	0.53%
Arunachal Pradesh	7.99	0.53%
GOA TOTAL	7.77	0.52%
Daman and Diu	4.27	0.28%
Nagaland	4.05	0.27%
Pondicherry	3.89	0.26%
Jharkhand	3.70	0.25%
UT Chandigarh	2.92	0.19%
Sikkim	2.63	0.17%
Uttar Pradesh	1.61	0.11%
Total	1505.07	100.00%
Volume of Export by top 5 States	705.60	46.88%

Table-12: VOLUME OF ELECTRICITY IMPORT THROUGH UI		
Name of the State/UT/Other Regional Entity	Volume of Import (MUs)	% of Volume
Uttar Pradesh	629.33	31.67%
Haryana	140.01	7.05%
Andhra Pradesh	102.49	5.16%
Gujarat	86.52	4.35%
Orissa	86.50	4.35%
West Bengal	83.20	4.19%
Maharashtra	75.17	3.78%
MUNDRA APL	71.24	3.58%
Chattisgarh	62.12	3.13%
Uttarakhand	59.91	3.01%
Rajasthan	57.21	2.88%
Jharkhand	53.76	2.70%
Tamilnadu	51.50	2.59%
Karnataka	50.39	2.54%
MP	48.09	2.42%
Delhi	46.05	2.32%
Punjab	44.24	2.23%
Himachal Pradesh	33.01	1.66%
J & K	26.04	1.31%
JINDAL POWER	25.08	1.26%
Bihar	24.62	1.24%
Sikkim	21.36	1.07%
UT Chandigarh	20.98	1.06%
Kerala	20.61	1.04%
GOA TOTAL	16.31	0.82%
Daman and Diu	11.58	0.58%
Assam	11.58	0.58%
Dadra & Nagar Haveli	9.46	0.48%
DVC	7.69	0.39%
Pondicherry	5.20	0.26%
Tripura	2.00	0.10%
Nagaland	1.97	0.10%
Arunachal Pradesh	1.21	0.06%
Meghalaya	0.69	0.03%
Mizoram	0.15	0.01%
Manipur	0.09	0.00%
LANKO_AMK	0.00	0.00%
Total	1987.32	100.00%
Volume of Export by top 5 States	1044.84	52.58%

Table-13: TOTAL NET SHORT-TERM TRANSACTIONS (STATE/UT/REGIONAL ENTITY-WISE)		
Sr.No	Name of the State/UT/Other Regional Entity	Total short-term transactions*
1	Punjab	965.39
2	Haryana	963.45
3	Uttar Pradesh	654.38
4	Delhi	403.71
5	Rajasthan	401.41
6	Maharashtra	169.86
7	Andhra Pradesh	163.56
8	Dadra & Nagar Haveli	123.59
9	Daman and Diu	83.22
10	MUNDRA APL	56.22
11	Jharkhand	50.06
12	Uttarakhand	32.01
13	UT Chandigarh	24.84
14	GOA TOTAL	18.70
15	Pondicherry	1.32
16	Orissa	-6.80
17	Bihar	-9.25
18	Mizoram	-10.04
19	Nagaland	-15.14
20	Tripura	-18.35
21	Manipur	-18.58
22	Arunachal Pradesh	-23.21
23	Meghalaya	-26.60
24	Sikkim	-31.48
25	Kerala	-40.20
26	Assam	-65.69
27	West Bengal	-108.90
28	DVC	-123.44
29	Tamilnadu	-124.92
30	LANKO_AMK	-188.00
31	Gujarat	-213.04
32	MP	-282.96
33	Chattisgarh	-293.81
34	Karnataka	-302.70
35	J & K	-352.96
36	JINDAL POWER	-384.02
37	Himachal Pradesh	-694.59
* Total net short-term transactions includes net of transactions through bilateral, power exchange and UI		
(-) indicates sale and (+) indicates purchase		