## MONTHLY REPORT ON SHORT-TERM TRANSACTIONS OF ELECTRICITY (April 2009)

#### Introduction

A Market Monitoring Cell (MMC) was set up in CERC in August 2008. As advised by the Steering Committee of MMC, MONTHLY REPORT ON SHORT-TERM TRANSACTIONS OF ELECTRICITY i.e. for the period from August 2008 to March 2009 was prepared and posted on the website of CERC. This is the report for the month of April 2009. The objective of the report is to see the trends in volume and price of the short-term transactions of electricity in India. Here, the "short-term transactions of electricity" includes the electricity transacted through Trading Licensees, Power Exchanges and Unscheduled Interchange. The report is mainly based on the data collected from Inter-State Trading Licensees, Power Exchanges i.e. Indian Energy Exchange Ltd (IEX) and Power Exchange India Ltd (PXIL) and National Load Despatch Centre (NLDC) as per the formats prescribed by MMC. The same has been analysed as below: -

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

During the Month of April 2009, total electricity generation excluding generation from renewables and captive power plants in India was 62486.24 MUs (Table-1).

Of the total electricity generation, 4432.07 MUs (7.09%) transacted through shortterm i.e. 2210.34 MUs (3.54%) through Bilateral (through traders and direct between distribution companies), followed by 1815.66 MUs (2.91%) through Unscheduled Interchange (UI) and 406.07 MUs (0.65%) through Power Exchanges (IEX and PXIL) (Table-1).

Of the total short-term transactions, Bilateral constitute 49.87% (40.50% through traders and 9.38% direct between distribution companies) followed by 40.97% through UI and 9.16% through Power Exchanges (Table-1). Daily volume of short-term transactions is shown in Chart-1.

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. Here the volume includes the volume traded by licensees through power exchanges also. There are 42 trading licensees as on 30.4.2009, of which 14 licensees are undertaking trading during April 2009. Top 5 trading licenses are having share of 88.80% in the total volume traded by all the licensees.

The volume of electricity transacted through IEX and PXIL was 376.72 MUs and 29.35 MUs respectively. The volume of total Buy bids and Sale bids was 821.30 MUs and 485.48 MUs respectively in IEX and 52.18 MUs and 59.30 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 (1.69 times) when compared with the supply offered through IEX and it was less demand (0.88 times) when compared with the supply offered through 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.7.21. 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.6.83, Rs.9.05 and Rs.8.47 respectively. Minimum and Maximum sale price was Rs.1.84 and Rs.13.54 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.2.98, Rs.14.90 and Rs.10.10 respectively in IEX and Rs.0.00, Rs.14.50 and Rs.10.18 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.5.36 in the NEW Grid and Rs.6.04 in the SR Grid. The power deficit is more in the Southern Region when compared with other regions, therefore, the UI price was higher in the SR Grid when compared with the UI price in the NEW Grid. Minimum and Maximum price of UI was Rs.0.12 and Rs.7.35 respectively in the New Grid and Rs.0.12 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-2.

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

Of the total bilateral transactions, top 5 states selling 63.93% of the volume are Jindal Power Ltd, Chattisgarh, J&K, Punjab and Haryana and top 5 states purchasing 67.58% of the volume are Andhara Pradesh, Maharashtra, Karnataka, Tamil Nadu and Uttar Pradesh (Table-7 & 8).

Of the total Power Exchange transactions, top 5 states selling 65.22% of the volume are Haryana, Gujarat, Delhi, Himachal Pradesh and Jindal Power Ltd and top 5 states purchasing 97.40% of the volume are Andhra Pradesh, Tamil Nadu, Rajasthan, Maharashtra and Haryana (Table-9 & 10)

Of the total UI transactions, top 5 states exporting 46.59% of the volume are Andhra Pradesh, Chattisgarh, Gujarat, Delhi and Madhya Pradesh and top 5 states importing 55.23% of the volume are Rajasthan, Uttar Pradesh, 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 Chattisgarh, Jindal Power Ltd, Delhi, Madhya Pradesh and J&K and top 5 states those purchasing electricity are Andhara Pradesh, Tamil Nadu, Maharashtra, Karnataka and Rajasthan.

#### **IV: Key findings/Observations:**

- The percentage of short-term transactions of electricity to total electricity generation was 7.09%.
- Of the total short-term transactions of electricity, 49.87% transacted through bilateral (through traders and directly by distribution companies) followed by 40.97% through UI and 9.16% through Power Exchanges.
- Top 5 trading licenses are having share of 88.80% in the total volume traded by all the trading licensees.
- The price of electricity transacted through Trading Licensees and Power Exchanges was Rs.7.21/KWh and around Rs.10.00/KWh, respectively. The price of electricity for UI transactions was around Rs.6.00/KWh.
- The gap between the volume of buy bids and sale bids placed through power exchange shows that there was more demand (1.69 times) when compared with the supply offered through IEX and it was less demand (0.88 times) when compared with the supply offered through PXIL.
- Top 5 states those selling electricity are Chattisgarh, Jindal Power Ltd, Delhi, Madhya Pradesh and J&K and top 5 states those purchasing electricity are Andhara Pradesh, Tamil Nadu, Maharashtra, Karnataka and Rajasthan.

VOI			TDANGACT		LECTRICITY (ALL	Format-1	
VOL			INDIA) (MUS				
Month:	April 2009			7		Total Electricity	
Date	Bilateral		(Market	xchange Clearing ıme)	Unscheduled Interchange (Over	Generation (MUs) as given at CEA Website	
	Through Traders	Direct	IEX	PXI	Drawl+Under Generation)		
1	54.45	13.85	16.61	0.26	57.92	2104	
2	55.40	13.70	19.08	0.60	60.80	2098	
3	54.63	14.08	21.24	1.27	48.46	2101	
4	57.81	13.27	17.57	1.45	48.25	2090	
5	61.53	13.86	11.32	0.60	48.09	2084	
6	63.91	14.73	12.00	0.00	45.21	2072	
7	65.46	13.96	17.91	1.06	47.04	2099	
8	64.20	15.73	15.45	0.61	63.82	2056	
9	60.42	15.32	19.07	2.08	59.13	2059	
10	64.74	15.22	18.30	3.22	65.95	2064	
11	61.04	15.22	19.73	1.91	96.31	2059	
12	63.04	14.76	17.25	2.08	73.33	2058	
13	64.63	15.11	13.69	1.70	57.91	2050	
14	56.82	15.01	12.05	0.67	62.32	2035	
15	56.38	15.62	7.61	0.18	70.45	2063	
16	59.21	14.02	9.91	1.28	57.44	2074	
17	59.58	16.67	6.68	0.71	54.45	2078	
18	62.07	17.30	5.09	0.32	46.36	2076	
19	60.58	16.00	8.76	1.12	45.67	2045	
20	59.39	15.12	10.26	0.70	59.35	2081	
21	59.11	13.54	9.47	0.70	76.73	2085	
22	61.10	11.32	7.96	3.35	78.81	2090	
23	62.52	11.54	7.51	1.80	63.24	2099	
24	64.79	11.54	6.88	0.95	57.05	2085	
25	58.76	11.79	7.32	0.50	65.48	2070	
26	56.88	11.92	7.39	0.00	62.06	2070	
27	54.71	11.15	8.90	0.25	60.59	2115	
28	56.92	11.22	10.29	0.00	59.95	2140	
29	58.48	11.22	15.04	0.00	66.93	2152	
30	56.24	11.77	16.37	0.00	56.56	2134	
Total	1794.80	415.54	376.72	29.35	1815.66	62486.24	

Source: NLDC \* Gross Electricity Gneration excluding electricity generation from renewables and captive power plants

Month: Apr	il 2009											
Market Segment	Power Exchange (IEX)			Powe	Power Exchange (PXIL)			Under Drawl/Over Drawl from the Grid (UI)				
	Mini- mum MCP	Maxi- mum MCP	Weighted Average*	Mini- mum MCP	mum mum	Weighted Average*		NEW Grid			SR Grid	k
Date							Mini- mum Price	Maxi- mum Price	Ave- rage Price**	Mini- mum Price	Maxi- mum Price	Ave- rage Price**
1-Apr-09	3.00	10.10	6.65	0.00	9.59	7.93	0.72	7.35	4.24	1.56	7.35	7.06
2-Apr-09	2.98	10.20	7.29	4.99	10.00	7.10	1.80	7.35	5.42	2.88	7.35	7.18
3-Apr-09	3.00	10.25	7.47	4.99	9.59	8.19	2.76	7.35	5.20	1.20	7.35	7.15
4-Apr-09	3.80	10.25	8.75	0.00	10.00	8.94	1.92	7.35	5.32	0.60	7.35	6.99
5-Apr-09	9.50	11.00	10.53	0.00	10.25	7.82	0.12	7.35	3.59	2.16	7.35	7.00
6-Apr-09	7.00	13.00	11.35				1.68	5.99	3.67	1.32	7.35	7.16
7-Apr-09	10.19	12.50	11.77	10.19	12.01	11.09	0.84	6.33	4.04	2.04	7.35	7.12
8-Apr-09	8.00	12.80	11.68	0.00	12.10	11.12	0.12	5.99	3.02	1.92	7.35	6.85
9-Apr-09	7.00	12.85	11.42	9.00	12.80	11.90	0.12	6.33	2.59	2.40	7.35	7.05
10-Apr-09	6.00	9.28	8.03	9.00	12.80	12.05	0.96	7.35	3.84	3.36	7.35	6.82
11-Apr-09	5.50	11.50	9.14	7.94	11.80	9.89	2.04	7.35	4.56	3.60	7.35	6.87
12-Apr-09	3.88	9.27	6.65	7.69	9.75	9.37	2.64	7.35	5.17	0.60	7.35	5.32
13-Apr-09	4.32	11.77	8.98	0.00	9.75	9.35	3.72	7.35	6.66	1.08	7.35	5.67
14-Apr-09	4.88	12.60	10.27	0.00	9.75	8.88	3.72	7.35	6.50	1.92	7.35	5.58
15-Apr-09	8.00	13.00	11.49	4.38	12.09	7.50	4.32	7.35	6.53	1.20	7.35	6.42
16-Apr-09	6.99	13.60	11.75	6.75	12.45	11.17	2.88	7.35	6.41	1.92	7.35	5.40
17-Apr-09	4.80	13.60	10.85	6.75	12.30	10.45	3.12	7.35	5.74	1.68	7.35	5.43
18-Apr-09	6.99	13.60	11.57	0.00	11.62	8.43	0.12	7.35	4.28	1.80	7.35	5.79
19-Apr-09	8.00	14.00	11.69	0.00	12.00	9.93	0.96	7.35	4.72	1.08	7.35	4.98
20-Apr-09	7.10	14.00	10.48	7.10	12.70	10.64	1.20	7.35	4.81	0.12	7.35	4.13
21-Apr-09	7.08	14.50	11.21	0.00	12.25	9.75	2.88	7.35	5.67	0.12	7.35	4.03
22-Apr-09	6.00	13.00	8.95	7.05	13.50	10.38	4.56	7.35	6.61	1.32	7.35	5.10
23-Apr-09	5.99	14.50	10.80	6.29	13.14	9.40	3.24	7.35	6.11	0.84	7.35	4.58
24-Apr-09	8.00	14.50	12.42	8.00	14.50	10.84	3.72	7.35	6.88	1.44	7.35	5.66
25-Apr-09	10.50	14.50	13.20	10.50	14.50	12.34	3.72	7.35	6.34	2.16	7.35	5.47
26-Apr-09	5.80	14.50	11.03				3.00	7.35	5.83	0.12	7.35	5.22
27-Apr-09	10.25	14.90	13.36	0.00	13.50	11.70	2.88	7.35	6.85	1.80	7.35	6.59
28-Apr-09	10.50	14.90	13.50				3.60	7.35	6.30	2.40	7.35	6.69
29-Apr-09	10.50	14.50	13.25				3.60	7.35	6.96	2.28	7.35	6.46
30-Apr-09	10.30	14.90	13.40				4.80	7.35	6.91	0.24	7.35	5.41
	2.98#	14.90#	10.10	0.00#	14.50#	10.18	0.12#	7.35#	5.36	0.12#	7.35#	6.04

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 O	OF SHORT-	TERM TRA	NSACTIO	NS OF ELE	ECTRICITY	(STATE-W	/ISE) (MUs)		
Month: April 2009										
Name of the State/UT/Other	Through Bilateral			Through	ough Power Exchange		Through UI with Regional Grid			
Regional Entity	Sale	Pur- chase	Net*	Sale	Pur- chase	Net*	Export (Under Drawl)	Import (Over Drawl)	Net*	Total Net**
Punjab	151.03	69.08	-81.95	4.40	0.00	-4.40	33.90	91.94	58.04	-28.31
Haryana	143.73	57.21	-86.52	73.68	12.10	-61.58	70.16	142.62	72.47	-75.63
Rajasthan	110.15	75.08	-35.07	22.72	71.14	48.41	12.44	226.99	214.55	227.89
Delhi	86.63	50.32	-36.32	57.64	1.22	-56.42	137.24	16.19	-121.05	-213.78
Uttar Pradesh	21.33	117.31	95.98	0.00	0.00	0.00	83.01	197.45	114.44	210.42
Uttarakhand	0.30	30.60	30.30	0.00	0.84	0.84	3.86	91.88	88.02	119.17
Himachal Pradesh	84.32	48.00	-36.32	35.86	0.00	-35.86	20.03	35.87	15.84	-56.33
J&K	197.59	7.80	-189.79	0.00	0.00	0.00	39.50	30.47	-9.03	-198.82
UT Chandigarh	0.00	0.00	0.00	0.36	0.00	-0.36	6.18	11.84	5.66	5.30
MP	93.56	12.58	-80.98	11.75	0.00	-11.75	119.15	10.26	-108.89	-201.62
Maharashtra	26.07	302.26	276.18	25.09	58.55	33.46	43.58	87.75	44.17	353.82
Gujarat	38.47	0.00	-38.47	65.82	0.46	-65.37	139.68	69.90	-69.78	-173.61
Chattisgarh	459.16	73.90	-385.26	29.15	0.00	-29.15	142.22	21.13	-121.09	-535.51
Daman and Diu	0.00	0.00	0.00	0.00	0.00	0.00	2.71	6.44	3.74	3.74
Dadra & Nagar Haveli	0.00	0.00	0.00	0.00	0.00	0.00	8.45	10.49	2.04	2.04
Andhra Pradesh	13.65	512.16	498.51	13.57	142.03	128.45	146.29	24.75	-121.55	505.41
Karnataka	0.00	298.55	298.55	0.00	0.20	0.20	16.16	48.05	31.88	330.63
Kerala	107.19	107.19	0.00	2.96	0.00	-2.96	11.35	23.46	12.10	9.14
Tamilnadu	0.00	190.07	190.07	0.00	111.71	111.71	44.08	120.03	75.95	377.73
Pondicherry	0.00	0.00	0.00	0.00	0.00	0.00	9.31	1.71	-7.60	-7.60
GOA	7.91	0.00	-7.91	7.33	0.00	-7.33	7.33	11.75	4.42	-10.82
West Bengal	95.93	36.01	-59.92	7.18	7.39	0.21	62.51	24.82	-37.68	-97.39
Orissa	34.38	28.73	-5.65	0.90	0.00	-0.90	41.87	16.12	-25.75	-32.29
Bihar	0.00	0.00	0.00	0.00	0.00	0.00	46.85	8.37	-38.48	-38.48
Jharkhand	0.00	0.00	0.00	2.01	0.00	-2.01	33.78	6.28	-27.50	-29.51
Sikkim	21.75	0.00	-21.75	3.72	0.00	-3.72	4.26	11.24	6.98	-18.49
DVC	44.67	0.00	-44.67	0.00	0.00	0.00	75.09	16.16	-58.93	-103.60
Arunachal Pradesh	2.76	0.00	-2.76	0.00	0.00	0.00	2.24	4.52	2.28	-0.48
Assam	0.74	80.27	79.53	6.67	0.00	-6.67	43.13	4.04	-39.09	33.78
Manipur	0.00	0.00	0.00	0.00	0.00	0.00	3.95	4.51	0.57	0.57
Meghalaya	0.17	4.58	4.41	0.00	0.00	0.00	4.33	5.56	1.23	5.64
Mizoram	0.00	0.00	0.00	0.00	0.42	0.42	0.95	4.00	3.05	3.47
Nagaland	0.00	0.00	0.00	0.00	0.00	0.00	1.20	6.10	4.90	4.90
Tripura	7.18	0.00	-7.18	3.41	0.00	-3.41	3.34	6.13	2.79	-7.79
JINDAL POWER	461.66	0.00	-461.66	31.84	0.00	-31.84	49.28	11.58	-37.70	-531.20

Source: NLDC

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

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

Та	Table-1: VOLUME OF SHORT-TERM TRANSACTIONS OF POWER (ALL INDIA)					
Sr.No	Short-term transactions	Volume (MUs)	% to Volume of short-term transactions	% to Total Generation		
1	Bilateral	2210.34	49.87%	3.54%		
	(i) Through Traders	1794.80	40.50%	2.87%		
	(ii) Direct	415.54	9.38%	0.67%		
2	Through Power Exchange	406.07	9.16%	0.65%		
3	Through UI	1815.66	40.97%	2.91%		
	Total	4432.07	100.00%	7.09%		
	Total Generation	62486.24				

Source: NLDC

Table	Table-2: Percentage Share of Electricity Traded by Trading Licensees           during April 2009					
Sr.No	Name of the Trading Licensee	% Share in total Volume traded by Licensees				
1	PTC India Ltd	40.42%				
2	Lanco Electric Utility Ltd	14.42%				
3	NTPC Vidyut Vyapar Nigam Ltd	12.08%				
4	Tata Power Trading Company (P) Ltd	11.05%				
5	Reliance Energy Trading (P) Ltd	10.83%				
6	JSW Power Trading Company Ltd	3.73%				
7	GMR Energy Trading Ltd	3.60%				
8	Kalyani Power Development (P) Ltd	1.87%				
9	Adani Enterprises Ltd	1.16%				
10	RPG Power Trading Company Ltd	0.31%				
11	Instinct Advertisement & Marketing Ltd	0.28%				
12	Knowledge Infrastructure Systems (P) Ltd	0.12%				
13	Vinergy International (P) Ltd	0.12%				
14	Mittal Processors (P) Ltd	0.01%				
	Total	100.00%				
	Top 5 trading licensees 88.80%					
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	Source: Information submitted by trading licensees					

Table-3: PRICE OF POWER TRANSACTED THROUGH TRADERS					
Sr.No	Period of Trade	Weighted Average Sale Price (Rs)			
1	RTC	6.83			
2	PEAK	9.05			
(1)	OFF PEAK	8.47			
	Total	7.21			

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 <sub>Maximum</sub> 13.54					
3	<sup>3</sup> Weighted Average 7.21				

Source: Information submitted by trading licensees

Table-5: PRICE OF POWER TRANSACTED THROUGH POWER EXCHANGE (Rs/KWh)				
Sr.No	МСР	IEX	PXIL	
1	Minimum	2.98	0.00	
2	Maximum	14.90	14.50	
3	Weighted Average	10.10	10.18	

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	0.12	0.12		
2	Maximum	7.35	7.35		
3	Average	5.36	6.04		

Source: NLDC

THROUGH BILATERAL					
Name of the State/UT/Other Regional Entity	Volume of Sale (MUs)	% of Volume			
JINDAL POWER	461.66	20.89%			
Chattisgarh	459.16	20.77%			
J&K	197.59	8.94%			
Punjab	151.03	6.83%			
Haryana	143.73	6.50%			
Rajasthan	110.15	4.98%			
Kerala	107.19	4.85%			
West Bengal	95.93	4.34%			
MP	93.56	4.23%			
Delhi	86.63	3.92%			
Himachal Pradesh	84.32	3.81%			
DVC	44.67	2.02%			
Gujarat	38.47	1.74%			
Orissa	34.38	1.56%			
Maharashtra	26.07	1.18%			
Sikkim	21.75	0.98%			
Uttar Pradesh	21.33	0.97%			
Andhra Pradesh	13.65	0.62%			
GOA	7.91	0.36%			
Tripura	7.18	0.32%			
Arunachal Pradesh	2.76	0.12%			
Assam	0.74	0.03%			
Uttarakhand	0.30	0.01%			
Meghalaya	0.17	0.01%			
UT Chandigarh	0.00	0.00%			
Daman and Diu	0.00	0.00%			
Dadra & Nagar Haveli	0.00	0.00%			
Karnataka	0.00	0.00%			
Tamilnadu	0.00	0.00%			
Pondicherry	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%			
Total	2210.34	100.00%			
Volume of sale by top 5					
States	1413.17	63.93%			

## Table-7: VOLUME OF ELECTRICITY SALE BY STATES THROUGH BILATERAL

	Table-8: VOLUME OF ELECTRICITY PURCHASE BY STATES         THROUGH BILATERAL				
Name of the State/UT/Other Regional Entity	Volume of Purchase (MUs)	% of Volume			
Andhra Pradesh	512.16	24.37%			
Maharashtra	302.26	14.38%			
Karnataka	298.55	14.21%			
Tamilnadu	190.07	9.04%			
Uttar Pradesh	117.31	5.58%			
Kerala	107.19	5.10%			
Assam	80.27	3.82%			
Rajasthan	75.08	3.57%			
Chattisgarh	73.90	3.52%			
Punjab	69.08	3.29%			
Haryana	57.21	2.72%			
Delhi	50.32	2.39%			
Himachal Pradesh	48.00	2.28%			
West Bengal	36.01	1.71%			
Uttarakhand	30.60	1.46%			
Orissa	28.73	1.37%			
MP	12.58	0.60%			
J&K	7.80	0.37%			
Meghalaya	4.58	0.22%			
UT Chandigarh	0.00	0.00%			
Gujarat	0.00	0.00%			
Daman and Diu	0.00	0.00%			
Dadra & Nagar Haveli	0.00	0.00%			
Pondicherry	0.00	0.00%			
GOA	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%			
Mizoram	0.00	0.00%			
Nagaland	0.00	0.00%			
Tripura	0.00	0.00%			
JINDAL POWER	0.00	0.00%			
Total	2101.70	100.00%			
Volume of purchase by top 5 States	1420.35	67.58%			

Table-9: VOLUME OF ELECTRICITY SALE BY STATES THROUGH POWER EXCHANGE				
Name of the State/UT/Other Regional Entity	Volume of Sale (MUs)	% of Volume		
Haryana	73.68	18.15%		
Gujarat	65.82	16.21%		
Delhi	57.64	14.20%		
Himachal Pradesh	35.86	8.83%		
JINDAL POWER	31.84	7.84%		
Chattisgarh	29.15	7.18%		
Maharashtra	25.09	6.18%		
Rajasthan	22.72	5.60%		
Andhra Pradesh	13.57	3.34%		
MP	11.75	2.89%		
GOA	7.33	1.80%		
West Bengal	7.18	1.77%		
Assam	6.67	1.64%		
Punjab	4.40	1.08%		
Sikkim	3.72	0.92%		
Tripura	3.41	0.84%		
Kerala	2.96	0.73%		
Jharkhand	2.01	0.50%		
Orissa	0.90	0.22%		
UT Chandigarh	0.36	0.09%		
Uttar Pradesh	0.00	0.00%		
Uttarakhand	0.00	0.00%		
J&K	0.00	0.00%		
Daman and Diu	0.00	0.00%		
Dadra & Nagar Haveli	0.00	0.00%		
Karnataka	0.00	0.00%		
Tamilnadu	0.00	0.00%		
Pondicherry	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%		
Meghalaya	0.00	0.00%		
Mizoram	0.00	0.00%		
Nagaland	0.00	0.00%		
Total	406.07	100.00%		
Volume of sale by top 5 States	264.84	65.22%		

# Table-9: VOLUME OF ELECTRICITY SALE BY STATES

THROUGH POWER EXCHANGE Name of the State/UT/Other Volume of % of Volume			
Regional Entity	Volume of Purchase (MUs)	% of volume	
Andhra Pradesh	142.03	34.98%	
Tamilnadu	111.71	27.51%	
Rajasthan	71.14	17.52%	
Maharashtra	58.55	14.42%	
Haryana	12.10	2.98%	
West Bengal	7.39	1.82%	
Delhi	1.22	0.30%	
Uttarakhand	0.84	0.21%	
Gujarat	0.46	0.11%	
Mizoram	0.42	0.10%	
Karnataka	0.20	0.05%	
Punjab	0.00	0.00%	
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%	
Daman and Diu	0.00	0.00%	
Dadra & Nagar Haveli	0.00	0.00%	
Kerala	0.00	0.00%	
Pondicherry	0.00	0.00%	
GOA	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%	
Assam	0.00	0.00%	
Manipur	0.00	0.00%	
Meghalaya	0.00	0.00%	
Nagaland	0.00	0.00%	
Tripura	0.00	0.00%	
JINDAL POWER	0.00	0.00%	
Total	406.07	100.00%	
Volume of purchase by top 5 States	395.53	97.40%	

# Table-10: VOLUME OF ELECTRICITY PURCHASE BY STATES THROUGH POWER EXCHANGE

Table-11: VOLUME OF ELECTRICITY EXPORT BY STATES THROUGH UI		
Name of the State/UT/Other Regional Entity	Volume of Export (MUs)	% of Volume
Andhra Pradesh	146.29	9.96%
Chattisgarh	142.22	9.68%
Gujarat	139.68	9.51%
Delhi	137.24	9.34%
MP	119.15	8.11%
Uttar Pradesh	83.01	5.65%
DVC	75.09	5.11%
Haryana	70.16	4.77%
West Bengal	62.51	4.25%
JINDAL POWER	49.28	3.35%
Bihar	46.85	3.19%
Tamilnadu	44.08	3.00%
Maharashtra	43.58	2.97%
Assam	43.13	2.94%
Orissa	41.87	2.85%
J&K	39.50	2.69%
Punjab	33.90	2.31%
Jharkhand	33.78	2.30%
Himachal Pradesh	20.03	1.36%
Karnataka	16.16	1.10%
Rajasthan	12.44	0.85%
Kerala	11.35	0.77%
Pondicherry	9.31	0.63%
Dadra & Nagar Haveli	8.45	0.57%
GOA	7.33	0.50%
UT Chandigarh	6.18	0.42%
Meghalaya	4.33	0.29%
Sikkim	4.26	0.29%
Manipur	3.95	0.27%
Uttarakhand	3.86	0.26%
Tripura	3.34	0.23%
Daman and Diu	2.71	0.18%
Arunachal Pradesh	2.24	0.15%
Nagaland	1.20	0.08%
Mizoram	0.95	0.06%
Total	1469.42	100.00%
Volume of Export by top 5 States	684.59	46.59%

Table-12: VOLUME OF ELECTRICITY IMPORT BY STATES THROUGH UI		
Name of the State/UT/Other Regional Entity	Volume of Import (MUs)	% of Volume
Rajasthan	226.99	16.09%
Uttar Pradesh	197.45	14.00%
Haryana	142.62	10.11%
Tamilnadu	120.03	8.51%
Punjab	91.94	6.52%
Uttarakhand	91.88	6.51%
Maharashtra	87.75	6.22%
Gujarat	69.90	4.96%
Karnataka	48.05	3.41%
Himachal Pradesh	35.87	2.54%
J&K	30.47	2.16%
West Bengal	24.82	1.76%
Andhra Pradesh	24.75	1.75%
Kerala	23.46	1.66%
Chattisgarh	21.13	1.50%
Delhi	16.19	1.15%
DVC	16.16	1.15%
Orissa	16.12	1.14%
UT Chandigarh	11.84	0.84%
GOA	11.75	0.83%
JINDAL POWER	11.58	0.82%
Sikkim	11.24	0.80%
Dadra & Nagar Haveli	10.49	0.74%
MP	10.26	0.73%
Bihar	8.37	0.59%
Daman and Diu	6.44	0.46%
Jharkhand	6.28	0.45%
Tripura	6.13	0.43%
Nagaland	6.10	0.43%
Meghalaya	5.56	0.39%
Arunachal Pradesh	4.52	0.32%
Manipur	4.51	0.32%
Assam	4.04	0.29%
Mizoram	4.00	0.28%
Pondicherry	1.71	0.12%
Total	1410.43	100.00%
Volume of Export by top 5 States	779.03	55.23%

Sr.No	Name of the State/UT/Other Regional Entity	Total short-term transactions*
1	Andhra Pradesh	505.41
2	Tamilnadu	377.73
3	Maharashtra	353.82
4	Karnataka	330.63
5	Rajasthan	227.89
6	Uttar Pradesh	210.42
7	Uttarakhand	119.17
8	Assam	33.78
9	Kerala	9.14
10	Meghalaya	5.64
11	UT Chandigarh	5.30
12	Nagaland	4.90
13	Daman and Diu	3.74
14	Mizoram	3.47
15	Dadra & Nagar Haveli	2.04
16	Manipur	0.57
17	Arunachal Pradesh	-0.48
18	Pondicherry	-7.60
19	Tripura	-7.79
20	GOA	-10.82
21	Sikkim	-18.49
22	Punjab	-28.31
23	Jharkhand	-29.51
24	Orissa	-32.29
25	Bihar	-38.48
26	Himachal Pradesh	-56.33
27	Haryana	-75.63
28	West Bengal	-97.39
29	DVC	-103.60
30	Gujarat	-173.61
31	J&K	-198.82
32	MP	-201.62
33	Delhi	-213.78
34	JINDAL POWER	-531.20
35	Chattisgarh	-535.51
	net short-term transactions includes net of t I, power exchange and UI	transactions through



