# MONTHLY REPORT ON SHORT-TERM TRANSACTIONS OF ELECTRICITY (March 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 February 2009 was prepared and posted on the website of CERC. This is the report for the month of March 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 March 2009, total electricity generation excluding generation from renewables and captive power plants in India was 64841.89 MUs (Table-1).

Of the total electricity generation, 4248.55 MUs (6.55%) transacted through short-term i.e. 1941.68 MUs (2.99%) through Bilateral (through traders and direct between distribution companies), followed by 1878.26 MUs (2.90%) through Unscheduled Interchange (UI) and 428.61 MUs (0.66%) through Power Exchanges (IEX and PXIL) (Table-1).

Of the total short-term transactions, Bilateral constitute 45.70% (39.93% through traders and 5.77% direct between distribution companies) followed by 44.21% through UI and 10.09% through Power Exchanges (Table-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 41 trading licensees as on 31.3.2009, however only 12 licensees are undertaking trading during March 2009. Top 5 trading licensees are having share of 85.65% in the total volume traded by licensees.

The volume of electricity transacted through IEX and PXIL was 377.17 MUs and 51.44 MUs respectively. The volume of total Buy bids and Sale bids was 719.68 MUs and 640.90 MUs respectively in IEX and 67.29 MUs and 82.04 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 (1.12 times) when compared with the supply offered through IEX and it was less demand (0.82 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.7.43. 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.7.35, Rs.8.08 and Rs.7.53 respectively. Minimum and Maximum sale price was Rs.2.44 and Rs.11.69 respectively (Table-3 and 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.0.60, Rs.13.10 and Rs.8.33 respectively in IEX and Rs.0.00, Rs.13.10 and Rs.8.54 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.4.85 in the NEW Grid and Rs.8.20 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.0.24 and Rs.10.00 respectively in the New Grid and Rs.0.00 and Rs.10.00 respectively in the SR Grid (Table-6).

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

Of the total bilateral transactions, top 5 states selling 68.78% of the volume are Jindal Power Ltd, Chattisgarh, Delhi, Punjab and Haryana and top 5 states purchasing 71.07% of the volume are Rajasthan, Madhya Pradesh, Tamil Nadu, Andhara Pradesh and Karnataka (Table-7 & 8).

Of the total Power Exchange transactions, top 5 states selling 86.68% of the volume are Gujarat, Chattisgarh, Delhi, Rajasthan and West Bengal and top 5 states purchasing 99.50% of the volume are Andhra Pradesh, Tamil Nadu, Maharashtra, Rajasthan and Karnataka (Table-9 & 10)

Of the total UI transactions, top 5 states exporting 53.58% of the volume are Chattisgarh, Delhi, Madhya Pradesh, Gujarat and West Bengal and top 5 states importing 48.92% of the volume are Haryana, Maharashtra, Uttar Pradesh, Andhra Pradesh and Tamil Nadu (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, Delhi, Jindal Power, Gujarat and West Bengal and top 5 states those purchasing electricity are Andhara Pradesh, Tamil Nadu, Rajasthan, Madhya Pradesh and Karnataka.

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

- The percentage of short-term transactions of electricity to total electricity generation was 6.55%.
- Of the total short-term transactions of electricity, 45.70% transacted through bilateral (through traders and directly by distribution companies) followed by 44.21% through UI and 10.09% through Power Exchanges.
- Top 5 trading licenses are having share of 85.65% in the total volume traded by licensees.
- The price of electricity transacted through trading licensees is comparable with the price of electricity transacted through Power Exchanges and UI. The price range was between Rs.7.43 Rs.8.54 per KWh.
- The gap between the volume of buy bids and sale bids placed through power exchange shows that there was more demand (1.12 times) when compared with the supply offered through IEX and it was less demand (0.82 times) when compared with the supply offered through PXIL.
- Top 5 states those selling electricity are Chattisgarh, Delhi, Jindal Power, Gujarat and West Bengal and top 5 states those purchasing electricity are Andhara Pradesh, Tamil Nadu, Rajasthan, Madhya Pradesh and Karnataka.

Format-1

VOL	Format-1					
Month:	March 2009		, ,	•		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	45.58	8.97	5.74	7.07	57.92	2062
2	44.01	8.24	4.92	2.00	60.80	2123
3	48.63	8.24	12.81	3.40	48.46	2132
4	51.28	9.28	10.95	1.64	48.25	2122
5	51.91	10.14	9.34	0.98	48.09	2122
6	54.44	7.88	8.54	0.48	45.21	2135
7	52.86	8.58	14.94	0.45	47.04	2145
8	56.42	8.74	14.09	1.20	63.82	2119
9	47.86	8.53	11.14	1.73	59.13	2098
10	55.05	9.62	14.94	1.73	65.95	2106
11	54.06	7.72	9.74	0.00	96.31	2005
12	58.51	8.36	14.97	3.08	73.33	2020
13	57.25	8.46	15.83	1.70	57.91	2035
14	59.96	7.76	15.23	0.47	62.32	2047
15	49.97	7.66	14.50	2.50	70.45	2047
16	49.29	7.11	15.02	1.89	57.44	2086
17	50.98	7.38	12.63	1.23	54.45	2094
18	50.10	6.10	13.29	0.99	46.36	2121
19	51.26	8.30	14.15	1.96	45.67	2122
20	51.35	8.23	13.66	2.13	59.35	2119
21	52.39	6.83	14.81	2.14	76.73	2114
22	52.68	8.47	7.25	0.55	78.81	2045
23	57.96	8.30	8.21	0.65	63.24	2090
24	55.69	8.46	11.00	2.30	57.05	2097
25	60.82	7.01	10.53	2.26	65.48	2107
26	66.86	7.35	9.05	2.57	62.06	2108
27	65.18	7.35	7.08	0.65	60.59	2091
28	60.15	6.45	14.14	0.00	59.95	2083
29	56.99	6.63	15.42	0.40	66.93	2040
30	69.89	6.56	12.82	0.78	56.56	2094
31	57.13	6.46	20.45	2.54	62.60	2113
Total	1696.50	245.18	377.17	51.44	1878.26	64841.89

Source: NLDC

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

Format-2

	PRICE OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (Rs/KWh)											
Month: Ma	rch 2009								, ,			
Market Segment		er Exchai	nge (IEX)	Powe	er Exchan	ge (PXIL)	Uı	nder Draw	/I/Over Dra	awl from	the Grid	(UI)
	Mini- mum MCP	Maxi- mum MCP	Weighted Average*	Mini- mum MCP	Maxi- mum MCP	Weighted Average*		NEW Gri	d		SR Grid	
Date							Mini- mum Price	Maxi- mum Price	Ave- rage Price**	Mini- mum Price	Maxi- mum Price	Ave- rage Price**
01/03/09	7.50	10.00	9.28	6.50	9.00	8.39	2.48	9.10	5.93	1.20	10.00	8.88
02/03/09	7.50	10.20	9.38	0.00	10.00	9.43	2.24	9.10	6.30	5.68	10.00	9.42
03/03/09	6.50	10.60	9.32	7.50	10.20	9.21	4.24	10.00	7.29	6.58	10.00	9.76
04/03/09	6.50	11.00	9.58	7.60	10.60	9.84	4.96	10.00	8.18	4.42	10.00	9.79
05/03/09	7.83	11.50	10.00	7.70	11.00	9.54	4.96	10.00	8.07	3.70	10.00	9.76
06/03/09	8.20	12.05	11.08	8.08	11.75	8.82	3.16	10.00	7.85	3.70	10.00	9.79
07/03/09	10.12	12.10	11.24	8.25	12.05	9.55	3.70	10.00	7.75	1.12	10.00	9.62
08/03/09	11.26	12.00	11.88	10.10	12.00	11.27	2.00	8.56	5.50	0.08	10.00	9.33
09/03/09	11.26	13.10	12.08	11.31	12.05	11.90	4.42	9.46	7.02	0.00	10.00	8.47
10/03/09	12.00	13.00	12.80	11.28	13.10	11.96	2.48	9.10	5.66	0.32	10.00	7.53
11/03/09	6.49	12.00	8.79				0.40	5.32	2.46	0.00	9.28	6.06
12/03/09	5.00	12.50	10.29	9.50	11.05	10.55	0.24	7.12	2.94	1.28	10.00	6.76
13/03/09	5.00	13.00	9.72	9.50	12.50	11.91	2.16	9.64	5.47	1.84	10.00	8.07
14/03/09	4.98	13.00	9.22	6.00	13.00	8.31	2.40	8.20	4.62	0.80	10.00	8.14
15/03/09	4.50	10.79	7.91	0.00	10.83	7.77	1.60	6.94	3.48	0.08	9.82	6.43
16/03/09	4.42	12.50	8.30	0.00	10.79	7.58	1.84	8.02	4.54	1.44	10.00	7.77
17/03/09	4.42	12.50	7.35	0.00	10.79	7.53	2.24	8.92	6.13	3.70	10.00	8.83
18/03/09	4.40	10.79	6.94	4.42	10.79	7.13	3.16	9.46	6.59	3.70	10.00	9.28
19/03/09	4.40	10.40	6.90	0.00	10.79	6.39	3.16	10.00	6.85	4.06	10.00	9.42
20/03/09	5.00	10.35	7.27	0.00	10.39	6.61	1.28	9.46	4.77	1.44	10.00	8.54
21/03/09	5.65	11.25	7.85	0.00	10.39	7.14	1.20	6.94	3.22	0.64	9.46	6.73
22/03/09	1.50	6.40	5.73	5.65	10.75	6.77	1.12	4.78	2.54	1.36	8.56	5.44
23/03/09	0.60	8.05	6.94	5.00	10.00	7.95	1.76	7.66	4.08	0.64	10.00	7.07
24/03/09	3.40	8.50	6.52	4.99	8.00	7.58	1.68	8.20	3.82	2.32	10.00	6.88
25/03/09	3.44	8.00	6.39	4.99	8.05	7.53	1.12	5.32	2.59	2.00	10.00	7.00
26/03/09	1.46	8.60	6.47	3.70	8.00	7.39	0.72	6.04	2.79	2.48	10.00	7.83
27/03/09	1.50	7.00	4.95	4.99	7.95	7.12	1.12	6.76	3.02	1.36	10.00	7.37
28/03/09	3.00	8.10	6.15				1.36	8.74	3.40	1.60	10.00	8.12
29/03/09	2.50	6.15	4.93	0.00	7.60	7.00	0.88	4.06	2.17	2.80	10.00	8.14
30/03/09	2.83	8.00	5.61	4.99	7.10	6.86	1.04	6.94	2.57	2.48	10.00	8.87
31/03/09	3.00	9.60	6.73	4.39	8.10	6.95	0.72	7.30	2.71	1.44	10.00	9.04
	0.60#	13.10#	8.33	0.00#	13.10#	8.54	0.24#	10.00#	4.85	0.00#	10.00#	8.20

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

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

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

<sup>#</sup> Maximum/Minimum in the month

Format-3

VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (STATE-WISE) (MUs)										
Month: March 2009										
Name of the State/UT/Other	Through Bilateral			Through	Through 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	125.49	112.50	-12.99	0.40	0.00	-0.40	69.48	80.70	11.22	-2.17
Haryana	114.61	8.47	-106.13	3.94	0.00	-3.94	29.89	231.79	201.90	91.83
Rajasthan	72.69	413.89	341.20	46.55	13.97	-32.58	84.37	139.58	55.21	363.84
Delhi	302.23	0.00	-302.23	61.74	0.23	-61.51	217.41	2.70	-214.71	-578.46
Uttar Pradesh	11.04	71.43	60.40	0.00	0.00	0.00	80.21	165.90	85.69	146.09
Uttarakhand	0.00	63.86	63.86	0.00	0.00	0.00	4.05	89.71	85.65	149.52
Himachal Pradesh	5.99	93.90	87.91	14.18	0.00	-14.18	24.47	22.37	-2.10	71.64
J&K	9.53	0.50	-9.03	0.00	0.00	0.00	47.60	20.05	-27.55	-36.59
UT Chandigarh	0.00	0.00	0.00	0.54	0.00	-0.54	15.35	1.58	-13.77	-14.31
MP	42.00	346.15	304.15	0.00	0.00	0.00	127.47	53.40	-74.07	230.08
Maharashtra	82.35	39.85	-42.50	13.50	82.92	69.42	28.17	192.38	164.21	191.13
Gujarat	65.79	0.00	-65.79	133.12	0.00	-133.12	126.12	77.92	-48.20	-247.11
Chattisgarh	362.37	6.97	-355.40	89.09	0.00	-89.09	265.74	5.64	-260.10	-704.59
Daman and Diu	0.00	0.00	0.00	0.00	0.00	0.00	2.89	21.17	18.28	18.28
Dadra & Nagar Haveli	0.00	0.00	0.00	0.00	0.00	0.00	3.18	56.20	53.02	53.02
Andhra Pradesh	0.00	176.39	176.39	0.00	229.41	229.41	29.81	153.32	123.50	529.30
Karnataka	0.00	124.00	124.00	0.00	11.21	11.21	9.82	78.36	68.54	203.74
Kerala	110.77	21.99	-88.77	0.00	0.65	0.65	41.14	5.24	-35.91	-124.03
Tamilnadu	0.00	319.55	319.55	0.00	88.98	88.98	43.72	139.60	95.88	504.41
Pondicherry	0.00	0.00	0.00	0.00	0.00	0.00	29.82	0.43	-29.39	-29.39
West Bengal	107.20	23.73	-83.48	26.95	0.00	-26.95	92.66	26.18	-66.48	-176.91
Orissa	29.80	15.50	-14.29	0.00	0.00	0.00	14.63	81.21	66.58	52.29
Bihar	0.00	0.00	0.00	0.00	0.00	0.00	13.90	20.09	6.18	6.18
Jharkhand	0.00	0.00	0.00	7.96	0.00	-7.96	23.27	18.92	-4.36	-12.32
Sikkim	26.35	0.00	-26.35	0.00	0.00	0.00	5.03	7.94	2.91	-23.44
DVC	47.36	6.98	-40.39	0.00	0.00	0.00	31.21	44.57	13.37	-27.02
Arunachal Pradesh	0.34	0.00	-0.34	0.00	0.00	0.00	1.04	6.15	5.11	4.77
Assam	0.00	83.96	83.96	3.79	0.00	-3.79	48.53	3.41	-45.13	35.04
Manipur	0.00	0.00	0.00	0.00	0.00	0.00	2.62	7.73	5.10	5.10
Meghalaya	0.00	12.05	12.05	0.00	0.00	0.00	5.05	6.94	1.89	13.94
Mizoram	0.00	0.00	0.00	0.00	1.25	1.25	0.45	6.18	5.74	6.99
Nagaland	0.00	0.00	0.00	0.00	0.00	0.00	0.96	4.60	3.64	3.64
Tripura	10.68	0.00	-10.68	3.10	0.00	-3.10	2.38	3.53	1.15	-12.62
Goa	8.40	0.00	-8.40	7.54	0.00	-7.54	15.10	8.15	-6.95	-22.89
JINDAL POWER	483.60	0.00	-483.60	0.00	0.00	0.00	10.50	21.37	-10.88	-494.48

Source: NLDC

 $<sup>^{\</sup>ast}$  (-) indicates sale and (+) indicates purchase

<sup>\*\*</sup> Total net includes net of transactions through bilateral, power exchange and UI

Tab	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	1941.68	45.70%	2.99%			
	(i) Through Traders	1696.50	39.93%	2.62%			
	(ii) Direct	245.18	5.77%	0.38%			
2	Through Power Exchange	428.61	10.09%	0.66%			
3	Through UI	1878.26	44.21%	2.90%			
	Total	4248.55	100.00%	6.55%			
	Total Generation	64841.89					

Source: NLDC

Table-2: Percentage Share of Electricity Traded by Trading Licensees during March 2009			
Sr.No	Name of the Trading Licensee	% Share in total Volume traded by Licensees	
1	PTC India Ltd	23.57%	
2	NTPC Vidyut Vyapar Nigam Ltd	20.93%	
3	Adani Enterprises Ltd	10.03%	
4	Tata Power Trading Company (P) Ltd	19.20%	
5	Reliance Energy Trading (P) Ltd	11.92%	
6	Kalyani Power Development (P) Ltd	1.13%	
7	JSW Power Trading Company Ltd	6.48%	
8	Lanco Electric Utility Ltd	6.22%	
9	GMR Energy Trading Ltd	0.06%	
10	Instinct Advertisement & Marketing Ltd	0.27%	
11	RPG Power Trading Company Ltd	0.19%	
12	Knowledge Infrastructure Systems (P) Ltd	0.07%	
	Total	100.00%	
	Top 5 trading licensees	85.64%	

Top 5 trading licensees

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

Table-3: PRICE OF POWER TRANSACTED THROUGH TRADERS					
Sr.No	Period of Trade	Weighted Average Sale Price (Rs)			
1	RTC	7.35			
2	PEAK	8.08			
3	OFF PEAK	7.53			
	Total	7.43			

Source: Information submitted by trading licensees

Table-4: PRICE OF POWER TRANSACTED THROUGH TRADERS						
Sr.No Sale Price (Rs/KWh)						
1	Minimum	2.44				
2	Maximum	11.69				
3	Weighted Average	7.43				

Source: Information submitted by trading licensees

Table-5: PRICE OF POWER TRANSACTED THROUGH POWER EXCHANGE (Rs/KWh)					
Sr.No	MCP	IEX	PXIL		
1	Minimum	0.60	0.00		
2	Maximum	13.10	13.10		
3	Weighted Average	8.33	8.54		

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	10.00	10.00		
3	Average	4.85	8.20		

Source: NLDC

Table-7: VOLUME OF ELECTRICITY SALE BY STATES THROUGH BILATERAL				
Name of the State/UT/Other Regional Entity	Volume of Sale (MUs)	% of Volume		
JINDAL POWER	483.60	23.96%		
Chattisgarh	362.37	17.95%		
Delhi	302.23	14.97%		
Punjab	125.49	6.22%		
Haryana	114.61	5.68%		
Kerala	110.77	5.49%		
West Bengal	107.20	5.31%		
Maharashtra	82.35	4.08%		
Rajasthan	72.69	3.60%		
Gujarat	65.79	3.26%		
DVC	47.36	2.35%		
MP	42.00	2.08%		
Orissa	29.80	1.48%		
Sikkim	26.35	1.31%		
Uttar Pradesh	11.04	0.55%		
Tripura	10.68	0.53%		
J&K	9.53	0.47%		
Goa	8.40	0.42%		
Himachal Pradesh	5.99	0.30%		
Arunachal Pradesh	0.34	0.02%		
Uttarakhand	0.00	0.00%		
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%		
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%		
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%		
Total	2018.59	100.00%		
Volume of sale by top 5 States	1388.31	68.78%		

	Table-8: VOLUME OF ELECTRICITY PURCHASE BY STATES THROUGH BILATERAL				
Name of the State/UT/Other Regional Entity	Volume of Purchase (MUs)	% of Volume			
Rajasthan	413.89	21.32%			
MP	346.15	17.83%			
Tamilnadu	319.55	16.46%			
Andhra Pradesh	176.39	9.08%			
Karnataka	124.00	6.39%			
Punjab	112.50	5.79%			
Himachal Pradesh	93.90	4.84%			
Assam	83.96	4.32%			
Uttar Pradesh	71.43	3.68%			
Uttarakhand	63.86	3.29%			
Maharashtra	39.85	2.05%			
West Bengal	23.73	1.22%			
Kerala	21.99	1.13%			
Orissa	15.50	0.80%			
Meghalaya	12.05	0.62%			
Haryana	8.47	0.44%			
DVC	6.98	0.36%			
Chattisgarh	6.97	0.36%			
J&K	0.50	0.03%			
Delhi	0.00	0.00%			
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%			
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%			
Mizoram	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%			
Total	1941.68	100.00%			
Volume of purchase by top 5 States	1379.98	71.07%			

	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			
Gujarat	133.12	32.28%			
Chattisgarh	89.09	21.60%			
Delhi	61.74	14.97%			
Rajasthan	46.55	11.29%			
West Bengal	26.95	6.54%			
Himachal Pradesh	14.18	3.44%			
Maharashtra	13.50	3.27%			
Jharkhand	7.96	1.93%			
Goa	7.54	1.83%			
Haryana	3.94	0.95%			
Assam	3.79	0.92%			
Tripura	3.10	0.75%			
UT Chandigarh	0.54	0.13%			
Punjab	0.40	0.10%			
Uttar Pradesh	0.00	0.00%			
Uttarakhand	0.00	0.00%			
J&K	0.00	0.00%			
MP	0.00	0.00%			
Daman and Diu	0.00	0.00%			
Dadra & Nagar Haveli	0.00	0.00%			
Andhra Pradesh	0.00	0.00%			
Karnataka	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%			
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%			
Mizoram	0.00	0.00%			
Nagaland	0.00	0.00%			
JINDAL POWER	0.00	0.00%			
Total	412.39	100.00%			
Volume of sale by top 5 States	357.45	86.68%			

Table-10: VOLUME OF ELECTRICITY PURCHASE BY STATES THROUGH POWER EXCHANGE		
Name of the State/UT/Other Regional Entity	Volume of Purchase (MUs)	% of Volume
Andhra Pradesh	229.41	53.52%
Tamilnadu	88.98	20.76%
Maharashtra	82.92	19.35%
Rajasthan	13.97	3.26%
Karnataka	11.21	2.61%
Mizoram	1.25	0.29%
Kerala	0.65	0.15%
Delhi	0.23	0.05%
Punjab	0.00	0.00%
Haryana	0.00	0.00%
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%
Gujarat	0.00	0.00%
Chattisgarh	0.00	0.00%
Daman and Diu	0.00	0.00%
Dadra & Nagar Haveli	0.00	0.00%
Pondicherry	0.00	0.00%
West Bengal	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%
Goa	0.00	0.00%
JINDAL POWER	0.00	0.00%
Total	428.61	100.00%
Volume of purchase by top 5 States	426.49	99.50%

Table-11: VOLUME OF ELECTRICITY EXPORT BY STATES THROUGH UI			
Name of the State/UT/Other Regional Entity	Volume of Export (MUs)	% of Volume	
Chattisgarh	265.74	17.17%	
Delhi	217.41	14.04%	
MP	127.47	8.23%	
Gujarat	126.12	8.15%	
West Bengal	92.66	5.99%	
Rajasthan	84.37	5.45%	
Uttar Pradesh	80.21	5.18%	
Punjab	69.48	4.49%	
Assam	48.53	3.14%	
J&K	47.60	3.08%	
Tamilnadu	43.72	2.82%	
Kerala	41.14	2.66%	
DVC	31.21	2.02%	
Haryana	29.89	1.93%	
Pondicherry	29.82	1.93%	
Andhra Pradesh	29.81	1.93%	
Maharashtra	28.17	1.82%	
Himachal Pradesh	24.47	1.58%	
Jharkhand	23.27	1.50%	
UT Chandigarh	15.35	0.99%	
Goa	15.10	0.98%	
Orissa	14.63	0.94%	
Bihar	13.90	0.90%	
JINDAL POWER	10.50	0.68%	
Karnataka	9.82	0.63%	
Meghalaya	5.05	0.33%	
Sikkim	5.03	0.32%	
Uttarakhand	4.05	0.26%	
Dadra & Nagar Haveli	3.18	0.21%	
Daman and Diu	2.89	0.19%	
Manipur	2.62	0.17%	
Tripura	2.38	0.15%	
Arunachal Pradesh	1.04	0.07%	
Nagaland	0.96	0.06%	
Mizoram	0.45	0.03%	
Total	1548.04	100.00%	
Volume of Export by top 5 States	829.40	53.58%	

Table-12: VOLUME OF ELECTRICITY IMPORT BY STATES THROUGH UI		
Name of the State/UT/Other Regional Entity	Volume of Import (MUs)	% of Volume
Haryana	231.79	12.84%
Maharashtra	192.38	10.66%
Uttar Pradesh	165.90	9.19%
Andhra Pradesh	153.32	8.49%
Tamilnadu	139.60	7.73%
Rajasthan	139.58	7.73%
Uttarakhand	89.71	4.97%
Orissa	81.21	4.50%
Punjab	80.70	4.47%
Karnataka	78.36	4.34%
Gujarat	77.92	4.32%
Dadra & Nagar Haveli	56.20	3.11%
MP	53.40	2.96%
DVC	44.57	2.47%
West Bengal	26.18	1.45%
Himachal Pradesh	22.37	1.24%
JINDAL POWER	21.37	1.18%
Daman and Diu	21.17	1.17%
Bihar	20.09	1.11%
J&K	20.05	1.11%
Jharkhand	18.92	1.05%
Goa	8.15	0.45%
Sikkim	7.94	0.44%
Manipur	7.73	0.43%
Meghalaya	6.94	0.38%
Mizoram	6.18	0.34%
Arunachal Pradesh	6.15	0.34%
Chattisgarh	5.64	0.31%
Kerala	5.24	0.29%
Nagaland	4.60	0.25%
Tripura	3.53	0.20%
Assam	3.41	0.19%
Delhi	2.70	0.15%
UT Chandigarh	1.58	0.09%
Pondicherry	0.43	0.02%
Total	1805.00	100.00%
Volume of Export by top 5 States	882.99	48.92%

Sr.No	Name of the State/UT/Other Regional Entity	Total short-term transactions*
1	Andhra Pradesh	529.30
2	Tamilnadu	504.41
3	Rajasthan	363.84
4	MP	230.08
5	Karnataka	203.74
6	Maharashtra	191.13
7	Uttarakhand	149.52
8	Uttar Pradesh	146.09
9	Haryana	91.83
10	Himachal Pradesh	71.64
11	Dadra & Nagar Haveli	53.02
12	Orissa	52.29
13	Assam	35.04
14	Daman and Diu	18.28
15	Meghalaya	13.94
16	Mizoram	6.99
17	Bihar	6.18
18	Manipur	5.10
19	Arunachal Pradesh	4.77
20	Nagaland	3.64
21	Punjab	-2.17
22	Jharkhand	-12.32
23	Tripura	-12.62
24	UT Chandigarh	-14.31
25	Goa	-22.89
26	Sikkim	-23.44
27	DVC	-27.02
28	Pondicherry	-29.39
29	J&K	-36.59
30	Kerala	-124.03
31	West Bengal	-176.91
32	Gujarat	-247.11
33	JINDAL POWER	-494.48
34	Delhi	-578.46
35	Chattisgarh	-704.59
* Total	net short-term transactions included in the contract of the co	

<sup>(-)</sup> indicates sale and (+) indicates purchase



