

**MONTHLY REPORT ON
SHORT-TERM TRANSACTIONS OF ELECTRICITY
(AUGUST 2010)**

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 2010 is as under:

I: Volume of Short-term Transactions of Electricity

During the Month of August 2010, total electricity generation excluding generation from renewable and captive power plants in India was 67174.98 MUs (Table-1).

Of the total electricity generation, 7969.62 MUs (11.86%) were transacted through short-term, comprising of 4169.90 MUs (6.2%) through Bilateral (through traders and term-ahead contracts on Power Exchanges and directly between distribution companies), followed by 2398.99 MUs (3.6%) through UI and 1400.7 MUs (2.1%) through Power Exchanges (IEX and PXIL) (Table-1 & Chart-2).

Of the total short-term transactions, Bilateral constitute 52% (38% through traders and term-ahead contracts on Power Exchanges and 14% directly between distribution companies) followed by 30% through UI and 17.58% through day ahead collective transactions on Power Exchanges (Table-1& Chart-1). Daily volume of short-term transactions is shown in Chart-3.

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-4. The trading

licensees are undertaking electricity transactions through bilateral and through power exchanges. Here the volume of electricity transacted by the trading licensees includes bilateral transactions and the transactions undertaken through power exchanges. There are 37 trading licensees as on 31.8.2010, of which only 16 have engaged in trading during August 2010. Top 5 trading licenses had a share of 85.5% 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 0.1802 for the month of August, which shows high concentration of market power (Table-2).

The volume of electricity transacted through IEX and PXIL was 1181.30 MUs and 219.44 MUs respectively. The volume of total Buy bids and Sale bids was 1547.63 MUs and 1941.77 MUs respectively in IEX and 324.96 MUs and 415.46 MUs respectively in PXIL. The gap between the volume of buy bids and sale bids placed through power exchanges shows that there was less demand in IEX (0.80 times) and in PXIL (0.78 times) when compared with the supply offered through these exchanges.

The volume of electricity transacted in term-ahead market through weekly contracts of power exchanges i.e. through IEX was 79.35 MU and through PXIL was 142.80 MU (Table-5A&5B).

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.4.92/kWh. 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.4.86/kWh, Rs.4.80/kWh and Rs.5.34/kWh respectively. Minimum and Maximum sale price was Rs.2.57/kWh and Rs.9.08/kWh respectively (Table-3 & 4).

(2) *Price of electricity transacted Through Power Exchange:* The Minimum, Maximum and Weighted Average Price have been computed for the volume transacted through IEX and PXIL separately. The Minimum, Maximum and Weighted Average Price

was Rs.1.68/kWh, Rs.7.15/kWh and Rs.3.41/kWh respectively in IEX and Rs.1.75/kWh, Rs.7.10/kWh and Rs.3.52/kWh respectively in PXIL (Table-5).

The weighted average price of electricity transacted in term-ahead market through the weekly contracts of power exchanges was Rs.4.05/kWh in IEX and Rs.3.03/kWh in PXIL (Table-5A & Table-5B).

(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.3.45/kWh in the NEW Grid and Rs.4.91/kWh in the SR Grid. Minimum and Maximum price of UI was Rs.0.00/kWh and Rs.17.46/kWh respectively in the New Grid and Rs.0.00/kWh and Rs.17.46/kWh respectively in the SR Grid (Table-6).

The weighted average price and volume of electricity transacted through trading licensees, power exchanges and UI and its comparison is shown in Chart-5 & 6.

III: Volume of Short-term Transactions of Electricity (Regional Entity¹-Wise):

Of the total bilateral transactions, top 5 regional entities selling 53% of the volume are Himachal Pradesh, Jindal Power, Madhya Pradesh, Karnataka and J&K. Top 5 regional entities purchasing 77% of the volume are Punjab, Delhi, Haryana, Uttar Pradesh and Tamil Nadu. (Table-7 & 8).

Of the total Power Exchange transactions, top 5 regional entities selling 79% of the volume are Gujarat, Delhi, Chattisgarh, Rajasthan and Andhra Pradesh and top 5 regional entities purchasing 79% of the volume are Maharashtra, Tamil Nadu, Uttar Pradesh, Punjab and Karnataka. (Table-9 & 10).

Of the total UI transactions, top 5 regional entities underdrawing 48% of the volume are Gujarat, Delhi, Lanko_AMK, DVC and Chattisgarh. Top 5 regional entities overdrawing 58% of the volume are Uttar Pradesh, Maharashtra, Rajasthan, Punjab and Jharkhand. (Table-11 & 12)

Regional entity-wise total volume of net short-term transactions of electricity i.e. volume of net transactions through bilateral, power exchange and UI is shown in Table-13. Top 5 regional entities selling electricity are Gujarat, Himachal Pradesh,

¹ In case of a state, the entities which are “selling” also include generators connected to state grid and the entities which are “buying” also include open access consumers.

Jindal Power, Madhya Pradesh and Chattisgarh and top 5 regional entities purchasing electricity are Punjab, Uttar Pradesh, Haryana, Maharashtra and Tamil Nadu.

IV: Congestion² on Inter-state Transmission Corridor for Day-Ahead Market on Power Exchanges:

Power Exchanges use a price discovery mechanism in which the aggregate demand and supply are matched to arrive at an unconstrained market price and volume. This step assumes that there is no congestion in the inter-state transmission system between different regions. However, in reality, the system operator, NLDC in coordination with RLDCs, limits the flow due to congestion in the inter-state transmission system. In such a situation, Power Exchanges adopt a mechanism called “Market Splitting”³.

In the month of August 2010, congestion occurred in both the power exchanges, the details of which are shown in Table-14. The volume of electricity that could not be cleared due to congestion and could not be transacted through power exchanges is the difference of unconstrained cleared volume (volume of electricity that would have been scheduled, had there been no congestion) and actual cleared volume.

- The volume of electricity that could not be cleared due to congestion was about 6.9% of the actual cleared volume in IEX and about 2.7% of the actual cleared volume in PXIL.
- Although the congestion occurred in power exchanges, in percentage of time terms it was around 8.06% in IEX and 16.26% in PXIL.

² “Congestion” means a situation where the demand for transmission capacity exceeds the available transfer capability

³ “Market Splitting” is a mechanism adopted by Power Exchange where the market is split in the event of transmission congestion, into predetermined (by NLDC) bid areas or zones, which are cleared individually at their respective area prices such that the energy balance in every bid area is reached based upon the demand and supply in individual bid areas and using the available transmission corridor capacity between various bid areas simultaneously”

As a result of this market splitting the price of electricity in the importing region, where demand for electricity is more than supply, becomes relatively higher than the price of electricity in the exporting region.

- Congestion occurred in most number of times during 0:00-06:00 hours period of the day in both the exchanges.

V: Observations:

- The percentage of short-term transactions of electricity to total electricity generation was 11.86 %.
- Of the total short-term transactions of electricity, 52% transacted through bilateral (through traders and term ahead contracts on power exchanges and directly by distribution companies) followed by 30% through UI and 18% through Power Exchanges.
- Top 5 trading licenses are having share of 85.5% in the total volume traded by all the trading licensees.
- The price of electricity transacted through Trading Licensees was relatively high (Rs.4.92/kWh) when compared with the price of electricity transacted through Power Exchange (Rs 3.41/ kWh in IEX and 3.52/ kWh in PXIL). The price of electricity transacted through UI was Rs.3.45/ kWh in NEW Grid and Rs.4.91/ kWh in SR Grid.
- The Herfindahl Hirschman Index computed for volume of electricity traded by trading licensees was 0.1802 shows high concentration of market power.
- The gap between the volume of buy bids and sale bids placed through power exchanges shows that there was less demand in IEX (0.80 times) and in PXIL (0.78 times) when compared with the supply offered through these exchanges.
- Top 5 regional entities selling electricity are Gujarat, Himachal Pradesh, Jindal Power, Madhya Pradesh and Chattisgarh and top 5 regional entities purchasing electricity are Punjab, Uttar Pradesh, Haryana, Maharashtra and Tamil Nadu.
- The volume of electricity that could not be cleared due to congestion was about 6.9% of the actual cleared volume in IEX and 2.7% of the actual cleared volume in PXIL. Congestion occurred in most number of times during 0:00-6:00 hours period of the day in both the exchanges.

VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (ALL INDIA) (MUs)						Total Electricity Generation (MUs) as given at CEA Website*
Month: August 2010						
Date	Bilateral		Power Exchange (Market Clearing Volume of day ahead market)		Unscheduled Interchange (Over Drawl+Under Generation)	
	Through Traders and PXs**	Direct	IEX	PXI		
1-Aug-10	107.11	32.63	26.95	1.68	74.96	2035.00
2-Aug-10	109.83	35.45	39.57	6.53	70.55	2098.39
3-Aug-10	102.33	35.59	41.10	6.66	70.72	2107.69
4-Aug-10	106.77	36.87	32.19	6.77	68.24	2110.10
5-Aug-10	98.55	36.89	31.57	4.72	77.88	2123.54
6-Aug-10	95.52	36.90	35.41	5.56	79.29	2121.46
7-Aug-10	100.80	35.38	36.87	5.79	83.29	2137.29
8-Aug-10	97.12	34.15	37.82	7.23	79.22	2133.57
9-Aug-10	98.53	36.74	37.47	5.41	68.76	2198.75
10-Aug-10	103.72	37.03	32.51	7.83	57.44	2213.87
11-Aug-10	100.81	37.08	28.71	8.91	67.77	2220.28
12-Aug-10	99.80	38.48	31.86	5.38	67.08	2201.63
13-Aug-10	104.76	36.38	36.45	7.32	58.81	2193.42
14-Aug-10	103.52	37.15	33.66	7.43	70.44	2199.07
15-Aug-10	103.72	34.45	32.17	6.74	85.07	2115.04
16-Aug-10	90.97	35.92	46.86	10.08	75.35	2143.10
17-Aug-10	88.22	37.41	47.58	12.16	77.05	2823.71
18-Aug-10	90.34	37.08	48.43	12.96	80.41	2190.77
19-Aug-10	96.09	35.84	46.30	9.67	84.61	2193.85
20-Aug-10	100.75	35.81	46.01	14.79	72.70	2170.38
21-Aug-10	88.81	36.22	54.16	11.34	74.88	2187.35
22-Aug-10	96.25	35.09	47.60	6.51	87.82	2058.76
23-Aug-10	94.88	36.13	37.74	5.81	79.53	2100.33
24-Aug-10	100.14	34.93	50.55	10.01	97.45	2061.70
25-Aug-10	100.05	36.34	39.54	6.33	96.85	2097.14
26-Aug-10	95.45	34.96	32.49	5.06	80.30	2095.90
27-Aug-10	96.48	35.40	34.03	4.40	74.56	2178.93
28-Aug-10	96.58	35.40	34.06	5.34	82.31	2195.25
29-Aug-10	87.64	33.93	30.29	2.34	88.91	2150.66
30-Aug-10	102.18	35.24	34.29	3.03	85.03	2153.37
31-Aug-10	100.04	35.32	37.05	5.66	81.72	2164.68
Total	3057.74	1112.16	1181.30	219.44	2398.99	67174.98
Source: NLDC						
* Gross Electricity Generation excluding electricity generation from renewable and captive power plants.						
** The volume of bilateral through PXs represents the volume through term-ahead contracts.						

PRICE OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (Rs/KWh)												
Month: August 2010												
Market Segment	Day ahead market of IEX			Day ahead market of PXIL			Under Draw/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-Aug-10	2.00	5.00	2.98	2.50	5.01	3.45	0.00	3.57	1.22	0.00	12.22	3.83
2-Aug-10	2.18	4.99	2.97	2.25	4.75	3.11	0.00	7.32	2.35	1.40	12.22	4.51
3-Aug-10	2.25	4.90	3.11	2.25	4.75	3.04	0.16	6.85	2.45	0.31	6.85	3.55
4-Aug-10	2.01	4.50	2.83	2.20	5.00	3.03	0.62	12.22	3.49	0.00	8.26	3.50
5-Aug-10	2.00	3.50	2.58	2.00	3.50	2.62	1.24	12.22	5.37	2.95	12.22	5.35
6-Aug-10	2.00	4.00	2.82	2.00	3.99	2.67	0.62	17.46	4.92	0.47	12.22	4.24
7-Aug-10	2.25	4.15	2.93	2.00	4.15	2.76	0.78	12.22	3.99	0.93	12.22	5.06
8-Aug-10	2.10	4.25	2.77	2.00	4.15	2.58	0.00	12.22	3.13	1.71	12.22	5.29
9-Aug-10	2.65	4.50	3.35	2.15	4.50	3.13	1.09	17.46	5.56	3.41	12.22	6.58
10-Aug-10	2.75	5.00	3.48	2.00	4.55	3.00	1.86	17.46	9.71	3.57	12.22	9.00
11-Aug-10	3.50	6.01	4.10	2.70	5.50	3.53	1.09	17.46	5.80	3.10	12.22	9.04
12-Aug-10	3.90	6.30	4.40	3.74	6.31	4.24	0.00	17.46	5.66	3.26	17.46	9.33
13-Aug-10	3.90	6.81	4.55	3.95	6.40	4.59	0.31	17.46	5.60	2.79	12.22	8.09
14-Aug-10	3.81	7.01	4.58	3.90	7.10	4.64	0.00	12.22	4.24	2.64	12.22	7.85
15-Aug-10	3.12	6.90	3.95	3.00	5.75	3.82	0.00	12.22	2.22	0.16	12.22	5.74
16-Aug-10	3.90	7.15	4.62	3.10	6.00	4.03	0.00	17.46	3.88	0.31	12.22	4.95
17-Aug-10	3.65	6.75	4.47	3.70	6.50	4.23	0.47	12.22	3.60	0.00	8.26	4.32
18-Aug-10	3.20	6.50	4.28	3.50	6.50	4.37	0.16	5.91	2.53	0.00	12.22	5.27
19-Aug-10	2.86	6.51	3.87	2.99	6.30	4.00	0.00	4.50	1.92	2.79	12.22	7.09
20-Aug-10	2.48	6.66	3.72	2.60	6.30	3.87	0.00	17.46	3.37	3.72	17.46	7.97
21-Aug-10	2.30	6.60	3.52	2.40	6.00	3.67	0.16	12.22	2.90	1.71	12.22	5.81
22-Aug-10	2.15	6.00	3.14	2.20	5.90	3.47	0.00	4.50	1.51	0.00	6.85	2.95
23-Aug-10	2.00	6.10	3.17	2.20	5.50	3.46	0.00	5.44	1.76	0.78	7.79	3.94
24-Aug-10	2.00	6.00	3.04	2.10	5.90	3.33	0.00	3.57	1.36	0.00	4.50	2.55
25-Aug-10	1.90	6.00	2.94	2.00	5.50	2.95	0.00	12.22	2.13	0.00	5.91	2.55
26-Aug-10	1.79	4.96	2.74	1.90	4.50	2.64	0.00	17.46	3.48	0.00	12.22	2.39
27-Aug-10	1.80	5.00	2.80	2.00	4.50	2.84	0.16	12.22	2.77	0.00	6.85	2.72
28-Aug-10	1.68	5.15	2.78	1.95	4.50	2.60	0.62	12.22	3.09	0.00	5.44	2.91
29-Aug-10	1.80	4.50	2.61	1.75	4.50	3.32	0.00	6.38	2.01	0.00	4.03	2.02
30-Aug-10	2.00	5.00	2.77	2.00	5.00	3.04	0.31	12.22	2.54	0.00	4.03	1.85
31-Aug-10	1.87	5.25	2.83	1.90	5.15	3.14	0.00	7.32	2.49	0.00	3.88	1.98
	1.68#	7.15#	3.41	1.75#	7.10#	3.52	0.00#	17.46#	3.45	0.00#	17.46#	4.91

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 (REGIONAL ENTITY*-WISE) (MUs)										
Month: August 2010										
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	0.00	1089.70	1089.70	19.99	149.89	129.89	23.21	204.26	181.05	1400.64
Haryana	0.00	606.08	606.08	12.56	39.81	27.25	69.34	154.11	84.77	718.10
Rajasthan	1.47	3.22	1.75	50.01	46.11	-3.90	29.30	231.00	201.70	199.55
Delhi	156.82	916.20	759.38	223.49	4.70	-218.79	210.24	8.51	-201.73	338.86
Uttar Pradesh	18.53	321.86	303.33	0.00	217.34	217.34	25.50	362.67	337.17	857.85
Uttarakhand	33.36	0.00	-33.36	3.46	0.00	-3.46	65.17	35.19	-29.98	-66.80
Himachal Pradesh	571.06	0.00	-571.06	12.91	0.00	-12.91	30.05	42.52	12.47	-571.50
J & K	285.39	0.00	-285.39	2.31	0.00	-2.31	68.01	49.86	-18.16	-305.85
UT Chandigarh	0.00	40.42	40.42	0.00	0.00	0.00	12.07	10.13	-1.94	38.49
Madhya Pradesh	438.08	27.13	-410.96	16.48	1.98	-14.50	99.39	59.22	-40.17	-465.63
Maharashtra	122.25	190.48	68.23	2.06	343.53	341.47	54.71	295.99	241.28	650.98
Gujarat	213.64	0.00	-213.64	678.44	12.70	-665.74	324.40	7.72	-316.68	-1196.05
Chattisgarh	227.91	0.00	-227.91	104.09	0.00	-104.09	142.34	13.44	-128.90	-460.91
Daman and Diu	0.00	0.00	0.00	0.00	0.00	0.00	9.69	3.84	-5.85	-5.85
Dadra & Nagar Haveli	0.00	0.00	0.00	0.00	8.52	8.52	5.70	12.74	7.05	15.56
Andhra Pradesh	60.02	107.66	47.64	48.50	52.67	4.17	109.13	58.02	-51.10	0.70
Karnataka	306.07	220.38	-85.68	45.90	130.75	84.85	33.03	84.40	51.37	50.53
Kerala	55.38	53.05	-2.33	0.00	94.85	94.85	3.58	58.62	55.04	147.55
Tamilnadu	181.27	288.12	106.85	0.00	260.70	260.70	28.53	150.75	122.21	489.77
Pondicherry	0.00	0.00	0.00	0.00	0.00	0.00	4.13	5.89	1.76	1.76
West Bengal	277.63	159.48	-118.15	29.82	34.40	4.58	122.93	32.05	-90.87	-204.45
Orissa	96.94	0.00	-96.94	3.88	0.00	-3.88	99.13	22.45	-76.69	-177.50
Bihar	0.00	0.00	0.00	0.00	0.00	0.00	26.08	21.34	-4.74	-4.74
Jharkhand	0.44	74.40	73.96	0.00	0.00	0.00	0.00	187.32	187.32	261.28
Sikkim	35.16	6.34	-28.82	28.58	0.00	-28.58	3.25	16.48	13.24	-44.17
DVC	89.09	2.85	-86.24	7.87	0.00	-7.87	142.60	6.50	-136.10	-230.21
Arunachal Pradesh	12.92	0.00	-12.92	3.64	0.06	-3.58	9.48	4.23	-5.25	-21.75
Assam	28.80	28.80	0.00	10.35	0.00	-10.35	38.19	8.46	-29.72	-40.08
Manipur	0.00	0.00	0.00	0.00	0.00	0.00	21.17	0.10	-21.08	-21.08
Meghalaya	22.57	22.57	0.00	1.75	0.00	-1.75	8.69	3.92	-4.77	-6.52
Mizoram	0.00	0.00	0.00	9.01	0.00	-9.01	4.62	0.81	-3.81	-12.82
Nagaland	17.51	0.00	-17.51	0.00	0.00	0.00	1.42	8.79	7.36	-10.15
Tripura	11.16	11.16	0.00	17.02	2.73	-14.30	7.15	2.06	-5.09	-19.39
GOA	0.00	0.00	0.00	0.11	0.00	-0.11	52.54	1.37	-51.18	-51.29
JINDAL POWER	483.78	0.00	-483.78	40.85	0.00	-40.85	4.25	34.13	29.88	-494.74
LANKO_AMK	0.00	0.00	0.00	0.00	0.00	0.00	182.41	0.09	-182.32	-182.32
LANKO_KONDAPALLY	160.79	0.00	-160.79	28.77	0.00	-28.77	6.71	20.10	13.39	-176.17
Source: NLDC										
* in case of a state, the entities which are "selling" also include generators connected to state grid and the entities which are "buying" also include open access consumers.										
** (-) 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), August 2010				
Sr.No	Short-term transactions	Volume (MUs)	% to Volume of short-term transactions	% to Total Generation
1	Bilateral	4169.90	52.32%	6.21%
	(i) Through Traders and PXs	3057.74	38.37%	4.55%
	(ii) Direct	1112.16	13.95%	1.66%
2	Through Power Exchanges	1400.73	17.58%	2.09%
	IEX	1181.30	14.82%	1.76%
	PXIL	219.44	2.75%	0.33%
3	Through UI	2398.99	30.10%	3.57%
	Total	7969.62	100.00%	11.86%
	Total Generation	67174.98	—	—

Source: NLDC

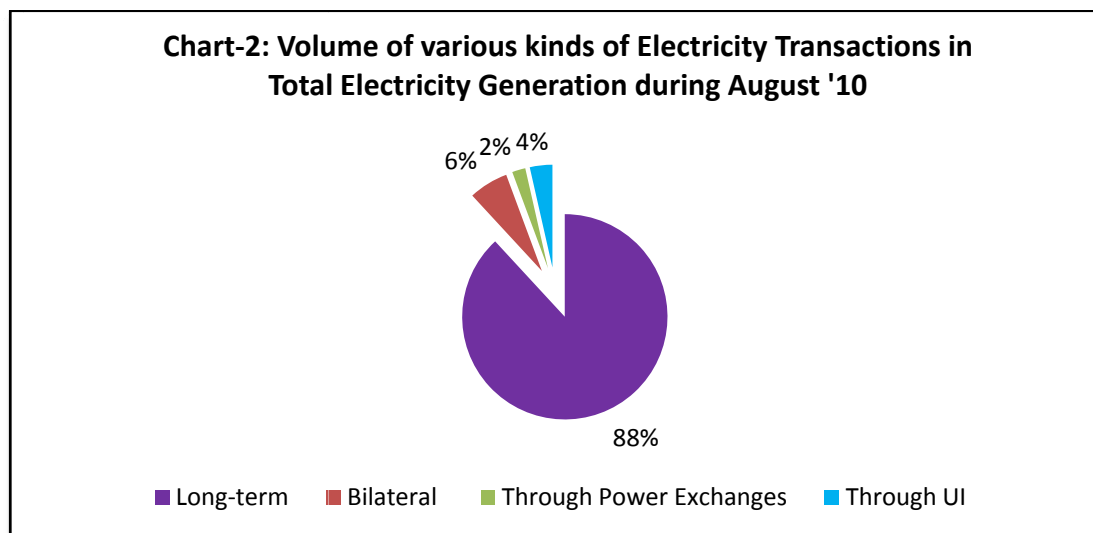
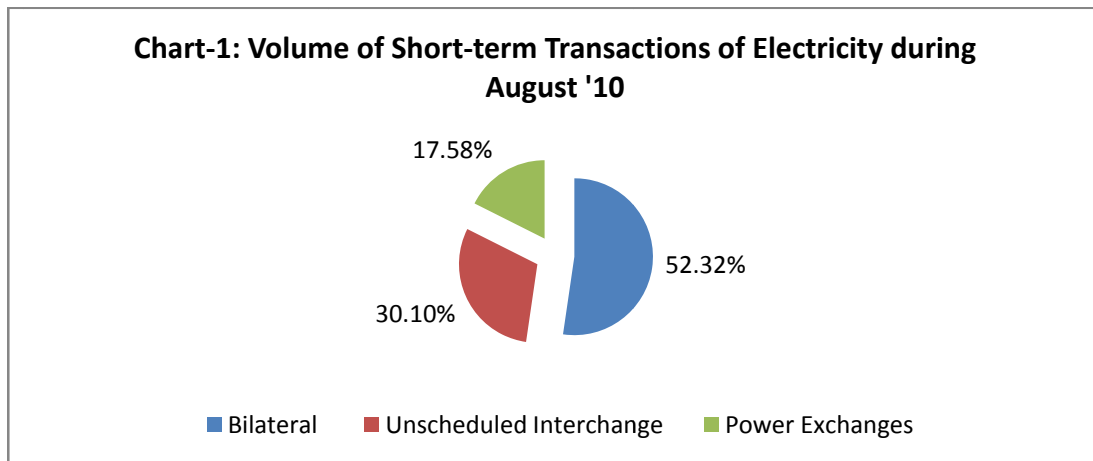


Chart-3: Volume of Short-term Transactions of Electricity, August 2010

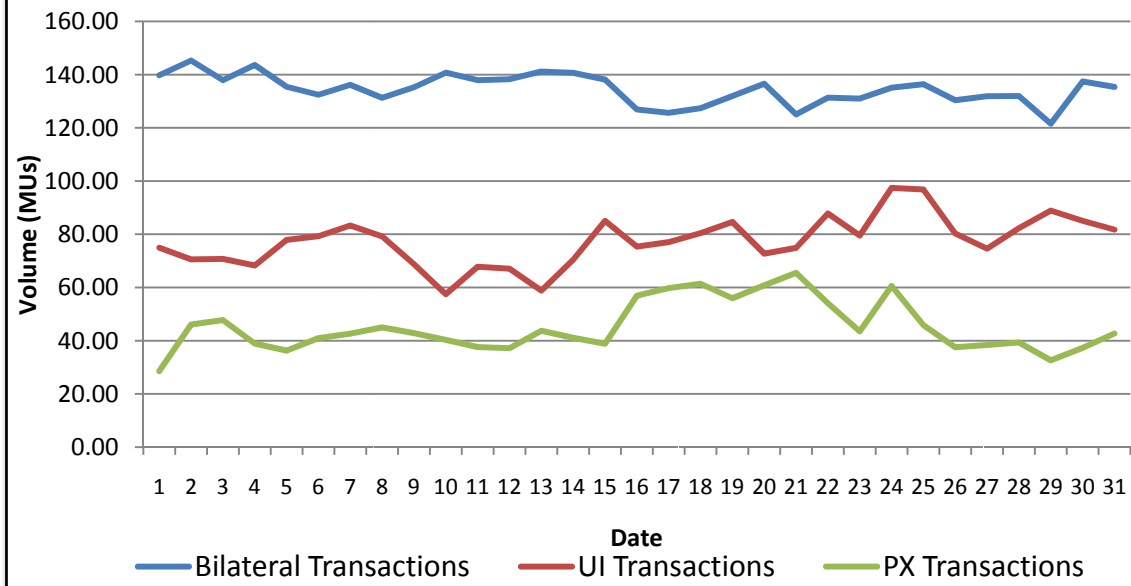


Table-2: Percentage Share of Electricity Traded by Trading Licensees during August 2010			
Sr.No	Name of the Trading Licensee	% Share in total Volume traded by Licensees	Herfindahl-Hirschman Index
1	PTC India Ltd	30.17%	0.0910
2	Lanco Electric Utility Ltd	19.41%	0.0377
3	NTPC Vidyut Vyapar Nigam Ltd	15.30%	0.0234
4	Reliance Energy Trading (P) Ltd	12.18%	0.0148
5	JSW Power Trading Company Ltd	8.41%	0.0071
6	Tata Power Trading Company (P) Ltd	7.25%	0.0052
7	GMR Energy Trading Ltd	1.92%	0.0004
8	Adani Enterprises Ltd	1.45%	0.0002
9	Knowledge Infrastructure Systems (P) Ltd	1.30%	0.0002
10	Instinct Advertisement & Marketing Ltd	0.95%	0.0001
11	Pune Power Development (P) Ltd	0.88%	0.0001
12	Godawari Power & Ispat Ltd.	0.33%	0.0000
13	Mittal Power Processor Ltd.	0.18%	0.0000
14	Essar Electric Power Development Corp. Ltd.	0.15%	0.0000
15	Shree Cement Ltd.	0.06%	0.0000
16	RPG Power Trading Company Ltd.	0.05%	0.0000
	Total	100.00%	0.1802
	Top 5 trading licensees	85.5%	
<i>Note: Volume of electricity traded by the licensees includes bilateral transactions (inter-state) and the transactions undertaken through power exchanges.</i>			
<i>Source: Information submitted by trading licensees</i>			

Chart-4: Percentage Share of Electricity Traded by Trading Licensees during August 10

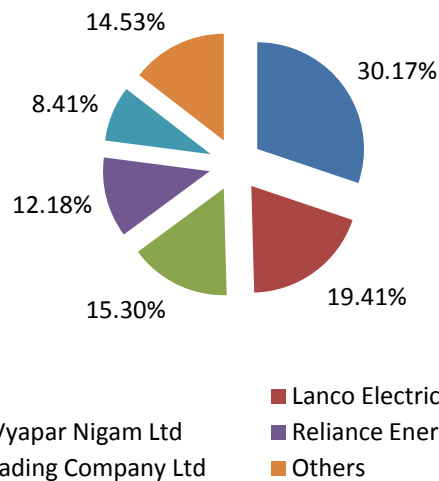


Table-3: PRICE OF POWER TRANSACTED THROUGH TRADERS		
Sr.No	Period of Trade	Weighted Average Sale Price (Rs)
1	RTC	4.86
2	PEAK	4.80
3	OFF PEAK	5.34

Source: Information submitted by trading licensees

Table-4: PRICE OF POWER TRANSACTED THROUGH TRADERS		
Sr.No		Sale Price (Rs/KWh)
1	Minimum	2.57
2	Maximum	9.08
3	Weighted Average	4.92

Source: Information submitted by trading licensees

Table-5: PRICE OF POWER TRANSACTED THROUGH POWER EXCHANGE (Rs/KWh)			
Sr.No	MCP	IEX	PXIL
1	Minimum	1.68	1.75
2	Maximum	7.15	7.10
3	Weighted Average	3.41	3.52

Source: Information submitted by IEX and PXIL

Table-5A: Term ahead market of IEX			
Sr.No	Term ahead contracts	Actual Scheduled Volume (MUs)	Weighted Average Price (Rs/kwh)
1	Day-Ahead Contingency Contracts	0.72	5.50
2	Weekly Contracts	79.35	4.05
	Total	80.07	-

Source: IEX

Table-5B: Term ahead market of PXIL			
Sr.No	Term ahead contracts	Actual Scheduled Volume (MUs)	Weighted Average Price (Rs/kwh)
1	Weekly Contracts	142.80	3.03

Source: PXIL

Table-6: PRICE OF POWER TRANSACTED THROUGH UI (Rs/KWh)			
Sr.No		NEW Grid	SR Grid
1	Minimum	0.00	0.00
2	Maximum	17.46	17.46
3	Average	3.45	4.91

Source: NLDC

Chart-5: Monthly Price of Short-term Transactions of Electricity, August 2010

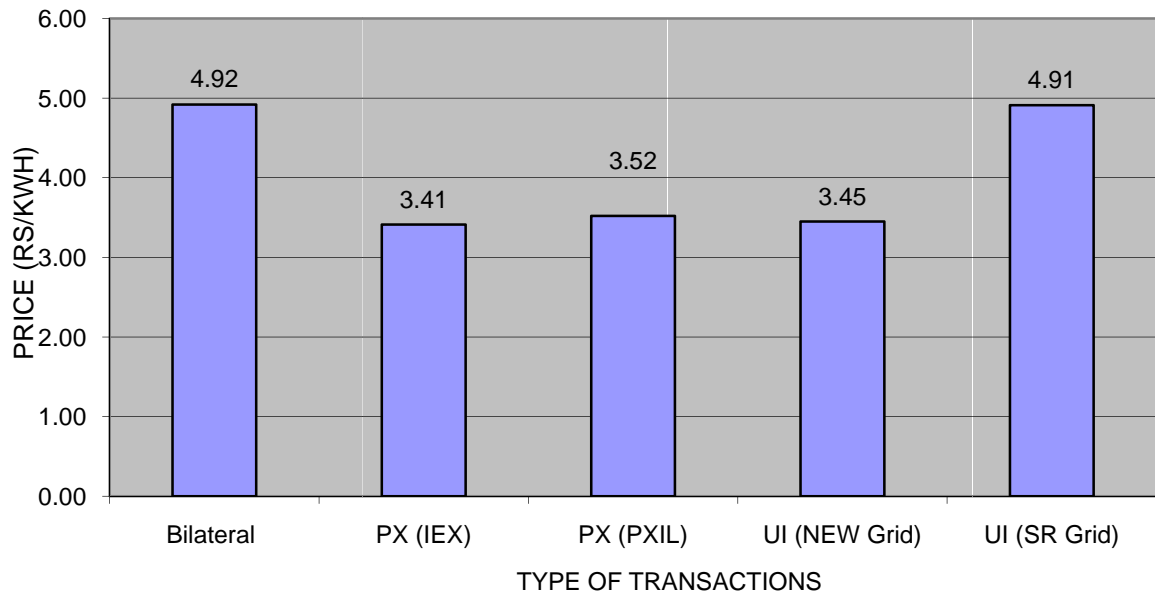


Chart-6: Daily Price of Short-term Transactions of Electricity, August 2010

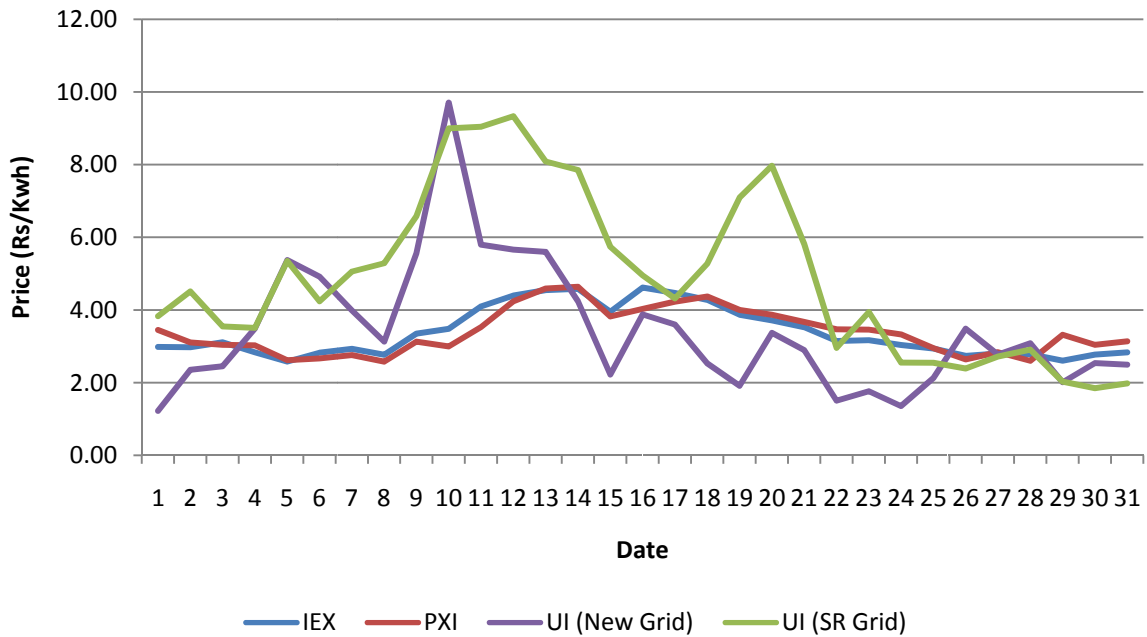


Table-7: VOLUME OF ELECTRICITY SALE THROUGH BILATERAL		
Name of the State/UT/Other Regional Entity	Volume of Sale (MUs)	% of Volume
Himachal Pradesh	571.06	14.82%
JINDAL POWER	483.78	12.56%
Madhya Pradesh	438.08	11.37%
Karnataka	306.07	7.94%
Jammu & Kashmir	285.39	7.41%
West Bengal	277.63	7.21%
Chattisgarh	227.91	5.92%
Gujarat	213.64	5.55%
Tamilnadu	181.27	4.71%
LANKO_KONDAPALLY	160.79	4.17%
Delhi	156.82	4.07%
Maharashtra	122.25	3.17%
Orissa	96.94	2.52%
DVC	89.09	2.31%
Andhra Pradesh	60.02	1.56%
Kerala	55.38	1.42%
Sikkim	35.16	0.91%
Uttarakhand	33.36	0.87%
Assam	28.80	0.75%
Meghalaya	22.57	0.59%
Uttar Pradesh	18.53	0.48%
Nagaland	17.51	0.45%
Arunachal Pradesh	12.92	0.34%
Tripura	11.16	0.29%
Rajasthan	1.47	0.04%
Jharkhand	0.44	0.01%
Total	3908.03	100.00%
Volume of sale by top 5 States	2084.38	53%

Table-8: VOLUME OF ELECTRICITY PURCHASE THROUGH BILATERAL		
Name of the State/UT/Other Regional Entity	Volume of Purchase (MUs)	% of Volume
Punjab	1089.70	26.13%
Delhi	916.20	21.97%
Haryana	606.08	14.53%
Uttar Pradesh	321.86	7.72%
Tamilnadu	288.12	6.91%
Karnataka	220.38	5.29%
Maharashtra	190.48	4.57%
West Bengal	159.48	3.82%
Andhra Pradesh	107.66	2.58%
Jharkhand	74.40	1.78%
Kerala	53.05	1.27%
UT Chandigarh	40.42	0.97%
Assam	28.80	0.69%
MP	27.13	0.65%
Meghalaya	22.57	0.54%
Tripura	11.16	0.27%
Sikkim	6.34	0.15%
Rajasthan	3.22	0.08%
DVC	2.85	0.07%
Total	4169.90	100%
Volume of purchase by top 5 States	3221.96	77%

Table-9: VOLUME OF ELECTRICITY SALE THROUGH POWER EXCHANGE		
Name of the State/UT/Other Regional Entity	Volume of Sale (MUs)	% of Volume
Gujarat	678.44	48.40%
Delhi	223.49	15.94%
Chattisgarh	104.09	7.43%
Rajasthan	50.01	3.57%
Andhra Pradesh	48.50	3.46%
Karnataka	45.90	3.27%
JINDAL POWER	40.85	2.91%
West Bengal	29.82	2.13%
LANKO_KONDAPALLY	28.77	2.05%
Sikkim	28.58	2.04%
Punjab	19.99	1.43%
Tripura	17.02	1.21%
MP	16.48	1.18%
Himachal Pradesh	12.91	0.92%
Haryana	12.56	0.90%
Assam	10.35	0.74%
Mizoram	9.01	0.64%
DVC	7.87	0.56%
Orissa	3.88	0.28%
Arunachal Pradesh	3.64	0.26%
Uttarakhand	3.46	0.25%
J & K	2.31	0.16%
Maharashtra	2.06	0.15%
Meghalaya	1.75	0.13%
GOA TOTAL	0.11	0.01%
Total	1401.88	100.00%
Volume of purchase by top 5 States	1104.54	79%

Table-10: VOLUME OF ELECTRICITY PURCHASE THROUGH POWER EXCHANGE		
Name of the State/UT/Other Regional Entity	Volume of Purchase (MUs)	% of Volume
Maharashtra	343.53	24.53%
Tamilnadu	260.70	18.61%
Uttar Pradesh	217.34	15.52%
Punjab	149.89	10.70%
Karnataka	130.75	9.34%
Kerala	94.85	6.77%
Andhra Pradesh	52.67	3.76%
Rajasthan	46.11	3.29%
Haryana	39.81	2.84%
West Bengal	34.40	2.46%
Gujarat	12.70	0.91%
Dadra & Nagar Haveli	8.52	0.61%
Delhi	4.70	0.34%
Tripura	2.73	0.19%
MP	1.98	0.14%
Arunachal Pradesh	0.06	0.00%
Total	1400.73	100.00%
Volume of sale by top 5 States	1102.21	79%

Table-11: VOLUME OF ELECTRICITY EXPORT THROUGH UI		
Name of the State/UT/Other Regional Entity	Volume of Export (MUs)	% of Volume
Gujarat	324.40	15.61%
Delhi	210.24	10.12%
LANKO_AMK	182.41	8.78%
DVC	142.60	6.86%
Chattisgarh	142.34	6.85%
West Bengal	122.93	5.92%
Andhra Pradesh	109.13	5.25%
MP	99.39	4.78%
Orissa	99.13	4.77%
Haryana	69.34	3.34%
J & K	68.01	3.27%
Uttarakhand	65.17	3.14%
Maharashtra	54.71	2.63%
GOA TOTAL	52.54	2.53%
Assam	38.19	1.84%
Karnataka	33.03	1.59%
Himachal Pradesh	30.05	1.45%
Rajasthan	29.30	1.41%
Tamilnadu	28.53	1.37%
Bihar	26.08	1.25%
Uttar Pradesh	25.50	1.23%
Punjab	23.21	1.12%
Manipur	21.17	1.02%
UT Chandigarh	12.07	0.58%
Daman and Diu	9.69	0.47%
Arunachal Pradesh	9.48	0.46%
Meghalaya	8.69	0.42%
Tripura	7.15	0.34%
LANKO_KONDAPALLY	6.71	0.32%
Dadra & Nagar Haveli	5.70	0.27%
Mizoram	4.62	0.22%
JINDAL POWER	4.25	0.20%
Pondicherry	4.13	0.20%
Kerala	3.58	0.17%
Sikkim	3.25	0.16%
Nagaland	1.42	0.07%
Total	2078.15	100.00%
Volume of Export by top 5 States	1001.99	48%

Table-12: VOLUME OF ELECTRICITY IMPORT THROUGH UI		
Name of the State/UT/Other Regional Entity	Volume of Import (MUs)	% of Volume
Uttar Pradesh	362.67	16.34%
Maharashtra	295.99	13.34%
Rajasthan	231.00	10.41%
Punjab	204.26	9.20%
Jharkhand	187.32	8.44%
Haryana	154.11	6.94%
Tamilnadu	150.75	6.79%
Karnataka	84.40	3.80%
MP	59.22	2.67%
Kerala	58.62	2.64%
Andhra Pradesh	58.02	2.61%
J & K	49.86	2.25%
Himachal Pradesh	42.52	1.92%
Uttarakhand	35.19	1.59%
JINDAL POWER	34.13	1.54%
West Bengal	32.05	1.44%
Orissa	22.45	1.01%
Bihar	21.34	0.96%
LANKO_KONDAPALLY	20.10	0.91%
Sikkim	16.48	0.74%
Chattisgarh	13.44	0.61%
Dadra & Nagar Haveli	12.74	0.57%
UT Chandigarh	10.13	0.46%
Nagaland	8.79	0.40%
Delhi	8.51	0.38%
Assam	8.46	0.38%
Gujarat	7.72	0.35%
DVC	6.50	0.29%
Pondicherry	5.89	0.27%
Arunachal Pradesh	4.23	0.19%
Meghalaya	3.92	0.18%
Daman and Diu	3.84	0.17%
Tripura	2.06	0.09%
GOA TOTAL	1.37	0.06%
Mizoram	0.81	0.04%
Manipur	0.10	0.00%
LANKO_AMK	0.09	0.00%
Total	2219.10	100.00%
Volume of Import by top 5 States	1281.24	58%

Table-13: TOTAL VOLUME OF NET SHORT-TERM TRANSACTIONS OF ELECTRICITY (REGIONAL ENTITY-WISE)		
Sr.No	Name of the State/UT/Other Regional Entity	Total volume of net short-term transactions of electricity*
1	Punjab	1400.64
2	Uttar Pradesh	857.85
3	Haryana	718.10
4	Maharashtra	650.98
5	Tamilnadu	489.77
6	Delhi	338.86
7	Jharkhand	261.28
8	Rajasthan	199.55
9	Kerala	147.55
10	Karnataka	50.53
11	UT Chandigarh	38.49
12	Dadra & Nagar Haveli	15.56
13	Pondicherry	1.76
14	Andhra Pradesh	0.70
15	Bihar	-4.74
16	Daman and Diu	-5.85
17	Meghalaya	-6.52
18	Nagaland	-10.15
19	Mizoram	-12.82
20	Tripura	-19.39
21	Manipur	-21.08
22	Arunachal Pradesh	-21.75
23	Assam	-40.08
24	Sikkim	-44.17
25	GOA TOTAL	-51.29
26	Uttarakhand	-66.80
27	LANKO_KONDAPALLY	-176.17
28	Orissa	-177.50
29	LANKO_AMK	-182.32
30	West Bengal	-204.45
31	DVC	-230.21
32	J & K	-305.85
33	Chattisgarh	-460.91
34	Madhya Pradesh	-465.63
35	JINDAL POWER	-494.74
36	Himachal Pradesh	-571.50
37	Gujarat	-1196.05
* Total volume of net short-term transactions of electricity includes net of transactions of electricity through bilateral, power exchange and UI		
(-) indicates sale and (+) indicates purchase		

Table-14: Details of Congestion in Power Exchanges for August 2010			
Details of Congestion		IEX	PXIL
A	Unconstrained Cleared Volume* (MU)	10.63	225.41
B	Actual Cleared Volume and hence scheduled (MU)	9.94	219.44
C	Volume of electricity that could not be cleared as hence not scheduled because of congestion (MU) (A-B)	0.68	5.97
D	Volume of electricity that could not be cleared as % to Actual Cleared Volume	6.9%	2.7%
E	Percentage of the time congestion occurred during the month (Number of hours congestion occurred/Total number of hours in the month)	8.06%	16.26%
F	Congestion occurrence (%) time block wise		
	0.00 - 6.00 hours	80%	60%
	6.00 - 12.00 hours	10%	19%
	12.00 - 18.00 hours	0%	8%
	18.00 - 24.00 hours	10%	12%

* This power would have been scheduled had there been no congestion.