

Monthly Report on Short-term Transactions of Electricity in India

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Abbreviations

Abbreviation	Expanded Version
ACBIL	ACB (India) Limited
ACP	Area Clearing Price
ACV	Area Clearing Volume
AD HYDRO	AD Hydro Power Limited
BALCO	Bharat Aluminium Company Limited
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CGPL	Coastal Gujarat Power Limited
CHUZACHEN HEP	Chuzachen Hydro electric power project
DCPP	Donga Mahua Captive Power Plant
DVC	Damodar Valley Corporation
EMCO	EMCO Energy Limited
ESSAR POWER	Essar Power Ltd
ESSAR STEEL	Essar Steel Ltd
HHI	Herfindahl-Hirschman Index
IEX	Indian Energy Exchange Limited
J&K	Jammu & Kashmir
JINDAL POWER	Jindal Power Limited
KARCHAM WANGTOO	Jaypee Karcham Hydro Corporation Limited
KSK Mahanadi	KSK Mahanadi Power Project
LANCO BUDHIL	Lanco Budhil Hydro Power Private Limited
LANKO_AMK	Lanco Amarkantak Power Private Limited
LANKO_KONDAPALLY	Lanco Kondapalli Power Limited
Meenakshi	Meenakshi Energy Private Limited
MP	Madhya Pradesh
MUs	Million Units
NEEPCO Stations	North Eastern Electric Power Corporation Limited. Stations
NEW Grid	North, East, North-East and Western Regional Grid
NHPC Stations	National Hydro Electric Power Corporation Ltd. Stations
NJPC	Nathpa Jhakri Hydroelectric Power Station
NLDC	National Load Despatch Centre
NSPCL	NTPC - SAIL Power Company Private Limited
PX	Power Exchange
PXIL	Power Exchange India Limited
RANGANADI HEP	Ranganadi Hydro Electric Project
REC	Renewable Energy Certificate
RGPPL	Ratnagiri Gas and Power Private Limited
RLDC	Regional Load Despatch Centre
RTC	Round - the- Clock
SHREE CEMENT	Shree Cement Limited
SIMHAPURI	Simhapuri Energy Private Limited
SR Grid	Southern Regional Grid
STERLITE	Sterlite Energy Limited
UI	Unscheduled Interchange
UT	Union Territory

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. Here, “short-term transactions of electricity” refers to the contracts of less than one year period, for electricity transacted (inter-state & intra-state) 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; (iii) to analyse effect of congestion on volume of electricity transacted through power exchanges; (iv) to provide information on volume and price of Renewable Energy Certificates (RECs) transacted through power exchanges; and (v) to disclose/disseminate all relevant market information. The analysis of the report for the month of October, 2013 is as under:

I: Volume of Short-term Transactions of Electricity

During the month of October 2013, total electricity generation excluding generation from renewable and captive power plants in India was 79431.13 MUs (Table-1).

Of the total electricity generation, 8702.36 MUs (10.96%) were transacted through short-term, comprising of 4208.58 MUs (5.30%) through Bilateral (through traders and term-ahead contracts on Power Exchanges and directly between distribution companies), followed by 2754.64 MUs (3.47%) through day ahead collective transactions on Power Exchanges (IEX and PXIL) and 1739.13 MUs (2.19%) through UI (Table-1 & Figure-2).

Of the total short-term transactions, Bilateral constitute 48.36% (29.16% through traders and term-ahead contracts on Power Exchanges and 19.21% directly between distribution companies) followed by 31.65% through day ahead collective transactions on Power Exchanges and 19.98% through UI (Table-1& Figure-1). Daily volume of short-term transactions is shown in Table-17 & Figure-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 & Figure-4. The trading licensees undertake 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 were 42 trading licensees as on 31.10.2013, of which only 20 have engaged in trading during October 2013. Top 5 trading licensees had a share of 70.79% in the total volume traded by all the licensees.

Herfindahl-Hirschman Index (HHI) has been used for measuring the competition among the trading licensees. Increase in the HHI generally indicates a decrease in competition and an increase of market power, whereas decrease indicates the opposite. A HHI below 0.15 indicates non-concentration, a HHI between 0.15 to 0.25 indicates moderate concentration and a HHI above 0.25 indicates high concentration. The HHI computed for volume of electricity traded by trading licensees (inter-state & intra-state) was 0.1561 for the month of October 2013, which indicates that there was moderate concentration of market power (Table-2).

The volume of electricity transacted through IEX and PXIL in the day ahead market was 2644.51 MUs and 110.13 MUs respectively. The volume of total Buy bids and Sale bids was 3596.65 MUs and 4452.99 MUs respectively in IEX and 146.95 MUs and 231.19 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 (0.81 times) and PXIL (0.64 times) when compared with the supply offered through these exchanges.

The volume of electricity transacted through IEX and PXIL in the term-ahead market was 15.97 MUs and 7.42 MUs respectively (Table-6 & Table-7).

II: Price of Short-term Transactions of Electricity

(i) *Price of electricity transacted through Traders:* Weighted average sale price has been computed for the electricity transacted through traders and it was ₹4.15/kWh. Weighted average sale price was also computed for the transactions during Round the Clock (RTC), Peak, and Off-Peak periods separately, and the sale prices were ₹4.14/kWh, ₹4.02/kWh and ₹4.21/kWh respectively. Minimum and Maximum sale prices were ₹2.64/kWh and ₹6.06/kWh respectively (Table-3 & 4).

(ii) *Price of electricity transacted Through Power Exchanges:* Minimum, Maximum and Weighted Average Prices have been computed for the electricity transacted through IEX and PXIL separately. The Minimum, Maximum and Weighted Average prices were ₹1.50/kWh, ₹20.00/kWh and ₹2.65/kWh respectively in IEX and ₹1.50/kWh, ₹7.00/kWh and ₹2.41/kWh respectively in PXIL (Table-5).

The price of electricity transacted through IEX and PXIL in the term-ahead market was ₹3.22/kWh and ₹3.01/kWh respectively (Table-6 and Table-7).

(iii) **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 ₹1.76/kWh in the NEW Grid and ₹2.60/kWh in the SR Grid. Minimum and Maximum UI prices were ₹0.00/kWh and ₹8.78/kWh respectively in the New Grid, and ₹0.00/kWh and ₹9.06/kWh respectively in the SR Grid (Table-8).

The prices of electricity transacted through trading licensees, power exchanges and UI and their comparison is shown in Table-18, Figure-5 & 6.

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

Of the total bilateral transactions, top 5 regional entities sold 50.35% of the volume, and these were Haryana, Jindal Power, Karnataka, Sterlite and Gujarat. Top 5 regional entities purchased 65.62% of the volume, and these were Rajasthan, Andhra Pradesh, Madhya Pradesh, Tamilnadu and Gujarat (Table-9, 10 & 19).

Of the total Power Exchange transactions, top 5 regional entities sold 56.19% of the volume, and these were Madhya Pradesh, Gujarat, Delhi, Chhattisgarh and Karcham Wangtoo. Top 5 regional entities purchased 67.52% of the volume, and these were Gujarat, Punjab, Uttar Pradesh, Rajasthan and Andhra Pradesh (Table-11, 12 & 19).

Of the total UI transactions, top 5 regional entities underdrew 39.32% of the volume, and these were Uttar Pradesh, Maharashtra, Rajasthan, Madhya Pradesh and Haryana. Top 5 regional entities overdrew 27.25% of the volume, and these were West Bengal, Himachal Pradesh, Haryana, Gujarat and Jammu & Kashmir (Table-13, 14 & 19).

Regional entity-wise total volume of net short-term transactions of electricity i.e. volume of net transactions through bilateral, power exchanges and UI is shown in Table-15 & 19. Top 5 electricity selling regional entities were Sterlite, Karnataka, Haryana, Jindal Power and Delhi. Top 5 electricity purchasing regional entities were Andhra Pradesh, Rajasthan, Punjab, Tamilnadu and Uttarakhand.

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.

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 October 2013, congestion occurred in both the power exchanges, the details of which are shown in Table-16. The volume of electricity that could not be cleared due to congestion and could not be transacted through power exchanges is the difference between unconstrained cleared volume (volume of electricity that would have been scheduled, had there been no congestion) and actual cleared volume.

During the month, the volume of electricity that could not be cleared in the power exchanges due to congestion was 14.34% and 11.46% of the unconstrained cleared volume in IEX and PXIL, respectively. In terms of time, congestion occurred was 100.00% in IEX and 70.43% in PXIL.

V: Volume and Price of Renewable Energy Certificates (RECs)

The concept of Renewable Energy Certificates (RECs) seeks to address mismatch between availability of renewable energy sources and the requirement of the obligated entities to meet their renewable purchase obligation by purchasing green attributes of renewable energy remotely located in the form of RECs. The REC mechanism is a market based instrument, to promote renewable sources of energy and development of market in electricity.

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.

One REC is equivalent to 1 MWh of electricity injected into the grid from renewable energy sources. The REC is exchanged only in the power exchanges approved by CERC within the band of a floor price and forbearance (ceiling) price as notified by CERC from time to time. The first REC trading session was held on power exchanges in March 2011.

The details of REC transactions for the month of October 2013 are shown in Table-20. The market clearing volume of Solar RECs transacted on IEX and PXIL were 6548 and 2709 respectively and the market clearing price of these RECs was ₹9300/MWh on both the power exchanges. Market clearing volume of Non-Solar RECs transacted on IEX and PXIL were 98921 and 51719 respectively and the market clearing price of these RECs was ₹1500/MWh on both the power exchanges.

The gap between the volume of buy and sell bids of RECs placed through power exchanges show that there was less demand for Solar RECs and Non-Solar RECs. For Solar RECs, the ratio of buy and sell bids was 0.13 and 0.14 in IEX and PXIL respectively. For Non-Solar RECs, the ratio of buy and sell bids was 0.04 and 0.04 in IEX and PXIL respectively.

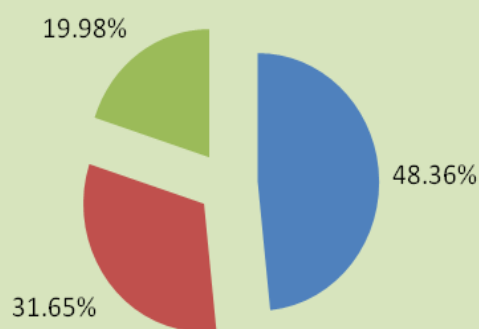
VI: Inferences:

- The percentage of short-term transactions of electricity to total electricity generation was 10.96%.
- Of the total short-term transactions of electricity, 48.36% was transacted through bilateral (through traders and term ahead contracts on power exchanges and directly by distribution companies), followed by 31.65% through Power Exchanges and 19.98% through UI.
- Top 5 trading licensees had a share of 70.79% in the total volume traded by all the trading licensees.
- The Herfindahl Hirschman Index computed for volume of electricity traded by trading licensees was 0.1561, indicating a moderate concentration of market power.
- The price of electricity transacted through trading licensees (₹4.15/kWh) was higher when compared with the price of electricity transacted through IEX (₹2.65/kWh) and PXIL (₹2.41/kWh) respectively.
- The price of electricity transacted through UI was ₹1.76/kWh in the NEW Grid and ₹2.60/kWh in the SR Grid.
- The gap between the volume of buy bids and sale bids placed through power exchanges indicates that there was less demand in IEX (1: 0.81) and PXIL (1: 0.64) when compared with the supply offered through these exchanges.
- Top 5 electricity selling regional entities were Sterlite, Karnataka, Haryana, Jindal Power and Delhi. Top 5 electricity purchasing regional entities were Andhra Pradesh, Rajasthan, Punjab, Tamilnadu and Uttarakhand.
- The volume of electricity that could not be cleared in the power exchanges due to congestion was 14.34% and 11.46% of the unconstrained cleared volume in IEX and PXIL, respectively. In terms of time, congestion occurred was 100.00% in IEX and 70.43% in PXIL.
- The market clearing volume of Solar RECs transacted on IEX and PXIL were 6548 and 2709 respectively and the market clearing price of these RECs was ₹9300/MWh on both the power exchanges. Market clearing volume of Non-Solar RECs transacted on IEX and PXIL were 98921 and 51719 respectively and the market clearing price of these RECs was ₹1500/MWh on both the power exchanges.

Table-1: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (ALL INDIA), OCTOBER 2013				
Sr.No	Short-term transactions	Volume (MUs)	% to Volume of short-term transactions	% to Total Generation
1	Bilateral	4208.58	48.36%	5.30%
	(i) Through Traders and PXs	2537.18	29.16%	3.19%
	(ii) Direct	1671.40	19.21%	2.10%
2	Through Power Exchanges	2754.64	31.65%	3.47%
	(i) IEX	2644.51	30.39%	3.33%
	(ii) PXIL	110.13	1.27%	0.14%
3	Through UI	1739.13	19.98%	2.19%
	Total	8702.36	100.00%	10.96%
	Total Generation	79431.13	—	—

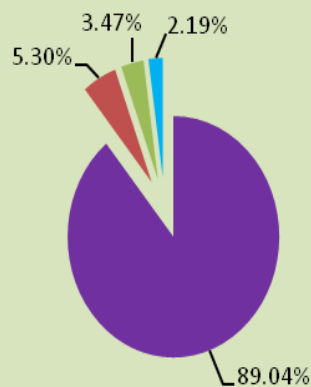
Source: NLDC

Figure-1: Volume of Short-term Transactions of Electricity, October 2013



■ Bilateral ■ Power Exchanges ■ Unscheduled Interchange

Figure-2: Volume of Various Kinds of Electricity Transactions in Total Electricity Generation, October 2013



■ Long-term ■ Bilateral ■ Through Power Exchanges ■ Through UI

Figure-3: Volume of Short-term Transactions of Electricity, October 2013 (Day-wise)

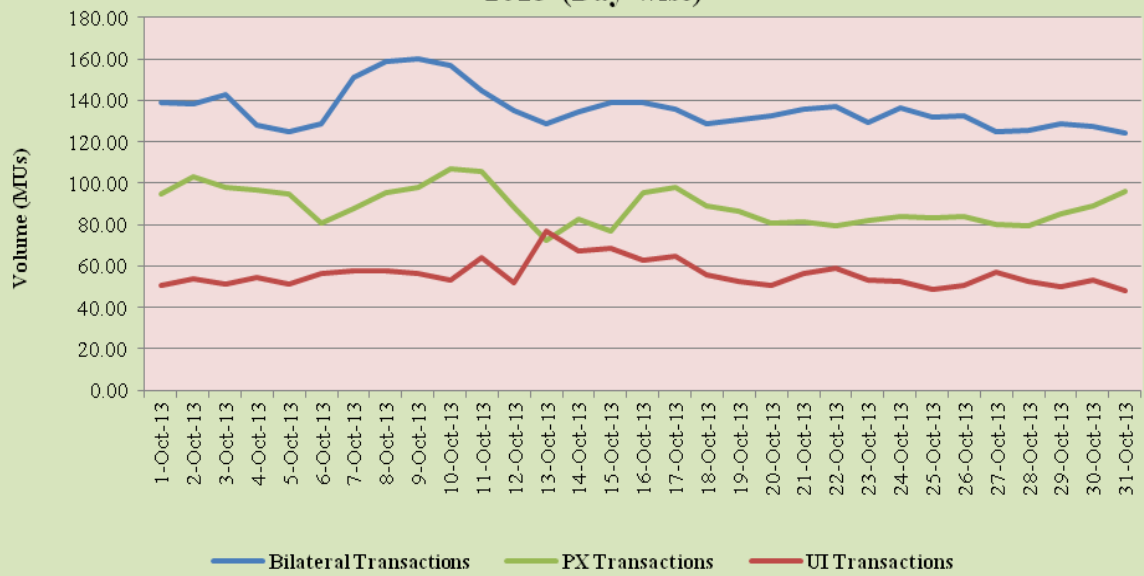


Table-2: PERCENTAGE SHARE OF ELECTRICITY TRANSACTED BY TRADING LICENSEES, OCTOBER 2013			
Sr.No	Name of the Trading Licensee	% Share in total Volume transacted by Trading Licensees	Herfindahl-Hirschman Index
1	PTC India Ltd.	32.64%	0.1065
2	JSW Power Trading Company Ltd	12.13%	0.0147
3	Tata Power Trading Company (P) Ltd.	11.64%	0.0136
4	Adani Enterprises Ltd.	7.39%	0.0055
5	Reliance Energy Trading (P) Ltd	7.01%	0.0049
6	Shree Cement Ltd.	6.33%	0.0040
7	NTPC Vidyut Vyapar Nigam Ltd.	4.78%	0.0023
8	Jaiprakash Associates Ltd.	4.02%	0.0016
9	Knowledge Infrastructure Systems (P) Ltd	3.84%	0.0015
10	Manikaran Power Ltd.	1.96%	0.0004
11	Mittal Processors (P) Ltd.	1.94%	0.0004
12	GMR Energy Trading Ltd.	1.86%	0.0003
13	Instinct Infra & Power Ltd.	1.51%	0.0002
14	RPG Power Trading Company Ltd.	1.11%	0.0001
15	National Energy Trading & Services Ltd.	0.97%	0.0001
16	Arunachal Pradesh Power Corporation (P) Ltd	0.31%	0.0000
17	Pune Power Development (P) Ltd.	0.27%	0.0000
18	Indrajit Power Technology (P) Ltd.	0.16%	0.0000
19	Customized Energy Solutions India (P) Ltd.	0.12%	0.0000
20	Essar Electric Power Development Corp. Ltd.	0.03%	0.0000
TOTAL		100.00%	0.1561
Top 5 trading licensees		70.79%	
<i>Note 1: Volume of electricity transacted by the trading licensees includes bilateral transactions (inter-state & intra-state) and the transactions undertaken through power exchanges.</i>			
<i>Note 2: Volume of electricity transacted by Global Energy Ltd is not included.</i>			
<i>Source: Information submitted by trading licensees</i>			

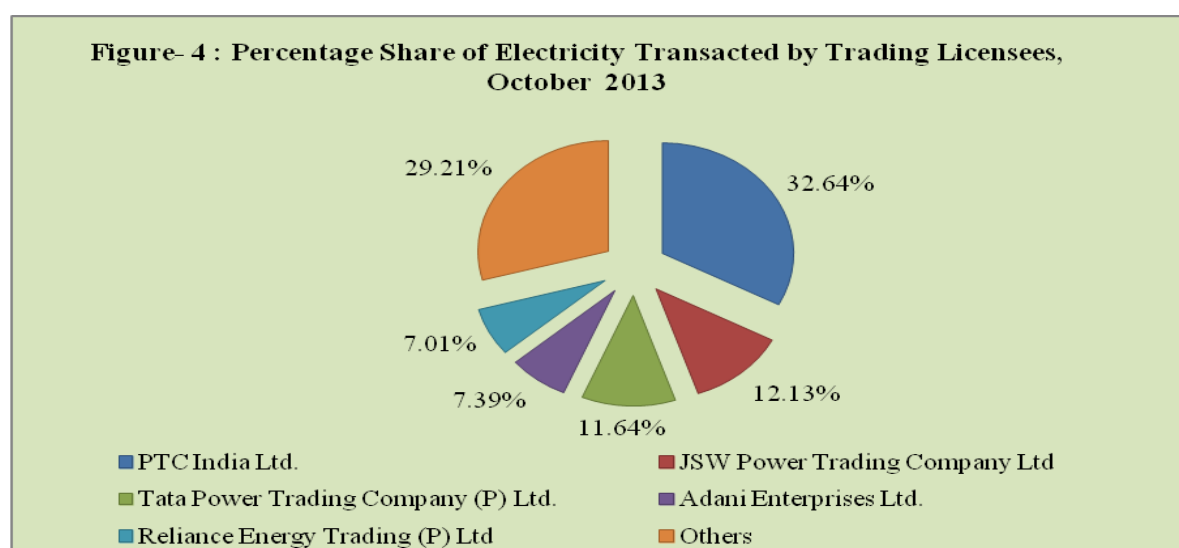


Table-3: PRICE OF ELECTRICITY TRANSACTED THROUGH TRADERS, OCTOBER 2013		
Sr.No		Sale Price of Traders (₹/kWh)
1	Minimum	2.64
2	Maximum	6.06
3	Weighted Average	4.15

Source: Information submitted by trading licensees

Table-4: PRICE OF ELECTRICITY TRANSACTED THROUGH TRADERS (TIME-WISE), OCTOBER 2013		
Sr.No	Period of Trade	Sale Price of Traders (₹/kWh)
1	RTC	4.14
2	PEAK	4.02
3	OFF PEAK	4.21

Source: Information submitted by trading licensees

Table-5: PRICE OF ELECTRICITY TRANSACTED THROUGH POWER EXCHANGES, OCTOBER 2013			
Sr.No	ACP	Price in IEX (₹/kWh)	Price in PXIL (₹/kWh)
1	Minimum	1.50	1.50
2	Maximum	20.00	7.00
3	Weighted Average	2.65	2.41

Source: Information submitted by IEX and PXIL

Table-6: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF IEX, OCTOBER 2013			
Sr.No	Term ahead contracts	Actual Scheduled Volume (MUs)	Weighted Average Price (₹/kWh)
1	Intra-Day Contracts	15.56	3.22
2	Day Ahead Contingency Contracts	0.42	3.00
	Total	15.97	3.22

Source: IEX

Table-7: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF PXIL, OCTOBER 2013			
Sr.No	Term ahead contracts	Actual Scheduled Volume (MUs)	Weighted Average Price (₹/kWh)
1	Intra-Day Contracts	2.22	2.91
2	Daily Contracts	0.80	3.05
4	Weekly Contracts	4.40	3.05
	Total	7.42	3.01

Source: PXIL

Table-8: PRICE OF ELECTRICITY TRANSACTED THROUGH UI, OCTOBER 2013			
Sr.No		Price in NEW Grid (₹/kWh)	Price in SR Grid (₹/kWh)
1	Minimum	0.00	0.00
2	Maximum	8.78	9.06
3	Average	1.76	2.60

Source: NLDC

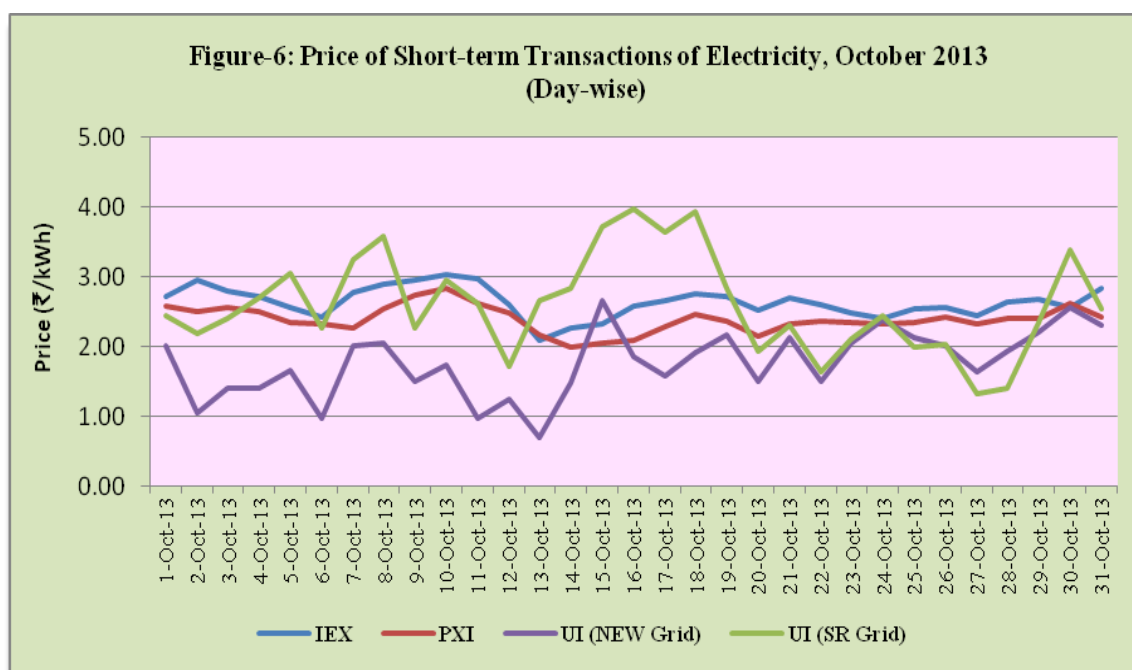
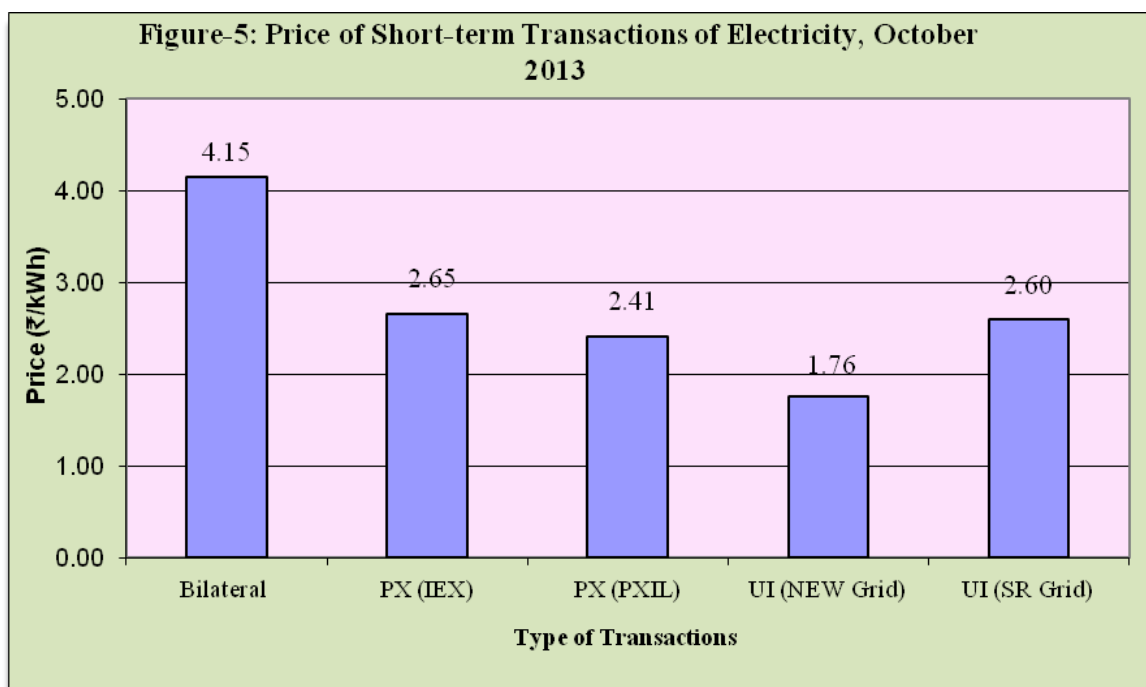


Table-9: VOLUME OF ELECTRICITY SALE THROUGH BILATERAL, OCTOBER 2013		
Name of the State/UT/Other Regional Entity	Volume of Sale (MUs)	% of Volume
Haryana	524.81	14.18%
JINDAL POWER	369.71	9.99%
Karnataka	336.75	9.10%
STERLITE	335.49	9.07%
Gujarat	296.53	8.01%
Uttar Pradesh	170.38	4.60%
Kerala	169.56	4.58%
Delhi	162.21	4.38%
DVC	156.17	4.22%
Himachal Pradesh	152.54	4.12%
SIMHAPURI	134.05	3.62%
West Bengal	119.41	3.23%
Rajasthan	113.87	3.08%
SHREE CEMENT	105.22	2.84%
Maharashtra	96.31	2.60%
MAITHON POWER LTD	82.92	2.24%
KARCHAM WANGTOO	55.77	1.51%
Punjab	52.80	1.43%
J & K	52.77	1.43%
DCPP	52.42	1.42%
Orissa	40.56	1.10%
Chhattisgarh	22.41	0.61%
ACBIL	19.77	0.53%
AD HYDRO	19.65	0.53%
Jharkhand	19.49	0.53%
Sikkim	15.75	0.43%
Goa	8.49	0.23%
Meghalaya	8.43	0.23%
Tripura	4.69	0.13%
Mizoram	1.50	0.04%
Total	3700.42	100.00%
Volume of sale by top 5 States	1863.28	50.35%

Table-10: VOLUME OF ELECTRICITY PURCHASE THROUGH BILATERAL, OCTOBER 2013		
Name of the State/UT/Other Regional Entity	Volume of Purchase (MUs)	% of Volume
Rajasthan	847.84	20.19%
Andhra Pradesh	775.81	18.47%
MP	589.80	14.04%
Tamilnadu	273.07	6.50%
Gujarat	269.24	6.41%
Jharkhand	173.06	4.12%
West Bengal	171.80	4.09%
Dadra & Nagar Haveli	146.36	3.48%
Uttarakhand	132.88	3.16%
Maharashtra	129.00	3.07%
Punjab	127.70	3.04%
Bihar	99.39	2.37%
Delhi	93.99	2.24%
Uttar Pradesh	85.79	2.04%
DVC	74.67	1.78%
Assam	67.92	1.62%
Himachal Pradesh	39.12	0.93%
Haryana	37.12	0.88%
Kerala	29.74	0.71%
J & K	15.74	0.37%
Chhattisgarh	7.62	0.18%
Karnataka	6.92	0.16%
Tripura	3.50	0.08%
Meenakshi	0.99	0.02%
Meghalaya	0.70	0.02%
Total	4199.75	100.00%
Volume of Purchase by top 5 States	2755.76	65.62%

Table-11: VOLUME OF ELECTRICITY SALE THROUGH POWER EXCHANGES, OCTOBER 2013		
Name of the State/UT/Other Regional Entity	Volume of Sale (MUs)	% of Volume
MP	448.38	16.28%
Gujarat	382.44	13.88%
Delhi	307.30	11.16%
Chhattisgarh	205.08	7.44%
KARCHAM WANGTOO	204.65	7.43%
West Bengal	147.39	5.35%
Orissa	146.80	5.33%
STERLITE	141.38	5.13%
Karnataka	84.47	3.07%
Himachal Pradesh	73.03	2.65%
Haryana	61.25	2.22%
ADHUNIK POWER LTD	46.00	1.67%
Rajasthan	36.44	1.32%
SHREE CEMENT	34.36	1.25%
ESSAR POWER	32.43	1.18%
JINDAL POWER	31.65	1.15%
EMCO	29.97	1.09%
DCPP	29.71	1.08%
MAITHON POWER LTD	29.52	1.07%
Andhra Pradesh	27.74	1.01%
KSK MAHANADI	20.50	0.74%
SIMHAPURI	19.97	0.72%
J & K	19.40	0.70%
Uttarakhand	16.96	0.62%
Maharashtra	16.75	0.61%
CHUZACHEN HEP	16.34	0.59%
Kerala	15.54	0.56%
DVC	14.79	0.54%
LANCO BUDHIL	13.44	0.49%
Assam	13.00	0.47%
NJPC	12.57	0.46%
Sikkim	12.47	0.45%
AD HYDRO	12.03	0.44%
ACBIL	11.82	0.43%
BALCO	7.80	0.28%
Meghalaya	6.99	0.25%
UT Chandigarh	6.49	0.24%
RANGANADI HEP	6.06	0.22%
NEEPCO Stations	4.77	0.17%
Nagaland	2.44	0.09%
Arunachal Pradesh	1.77	0.06%
Mizoram	1.33	0.05%
Tripura	0.74	0.03%
Meenakshi	0.70	0.03%
Total	2754.65	100.00%
Volume of sale by top 5 States	1547.84	56.19%

Table-12: VOLUME OF ELECTRICITY PURCHASE THROUGH POWER EXCHANGES, OCTOBER 2013		
Name of the State/UT/Other Regional Entity	Volume of Purchase (MUs)	% of Volume
Gujarat	645.43	23.43%
Punjab	358.99	13.03%
Uttar Pradesh	333.72	12.11%
Rajasthan	263.75	9.57%
Andhra Pradesh	258.03	9.37%
Maharashtra	217.14	7.88%
Haryana	174.12	6.32%
Bihar	87.52	3.18%
J & K	73.60	2.67%
Uttarakhand	69.73	2.53%
MP	48.53	1.76%
Tamilnadu	46.25	1.68%
ESSAR STEEL	39.78	1.44%
Himachal Pradesh	31.60	1.15%
Karnataka	25.63	0.93%
Daman and Diu	23.24	0.84%
Assam	20.61	0.75%
Delhi	11.47	0.42%
West Bengal	6.48	0.24%
Meghalaya	5.46	0.20%
Orissa	5.07	0.18%
Kerala	4.54	0.16%
UT Chandigarh	1.76	0.06%
Tripura	1.16	0.04%
Arunachal Pradesh	1.05	0.04%
Total	2754.64	100.00%
Volume of purchase by top 5 States	1859.92	67.52%

Table-13: VOLUME OF ELECTRICITY EXPORT THROUGH UI, OCTOBER 2013		
Name of the State/UT/Other Regional Entity	Volume of Export (MUs)	% of Volume
Uttar Pradesh	133.66	8.77%
Maharashtra	129.78	8.51%
Rajasthan	129.10	8.47%
MP	106.03	6.96%
Haryana	100.74	6.61%
Gujarat	92.52	6.07%
Orissa	74.66	4.90%
Tamilnadu	72.77	4.77%
Chhattisgarh	71.00	4.66%
Bihar	60.58	3.97%
West Bengal	50.35	3.30%
Punjab	50.12	3.29%
Jharkhand	49.46	3.24%
NHPC Stations	47.59	3.12%
Delhi	45.75	3.00%
Karnataka	39.45	2.59%
Andhra Pradesh	38.08	2.50%
Assam	24.45	1.60%
DVC	23.95	1.57%
Uttarakhand	16.53	1.08%
J & K	15.22	1.00%
Sikkim	12.22	0.80%
NJPC	12.21	0.80%
DCPP	12.02	0.79%
Goa	10.14	0.67%
CGPL	9.02	0.59%
Tripura	8.81	0.58%
NEEPCO Stations	8.06	0.53%
Daman and Diu	7.93	0.52%
Manipur	7.49	0.49%
STERLITE	5.30	0.35%
MAITHON POWER LTD	4.70	0.31%
JINDAL POWER	4.56	0.30%
Meghalaya	4.56	0.30%
Pondicherry	4.56	0.30%
SHREE CEMENT	4.52	0.30%
UT Chandigarh	4.33	0.28%
LANCO_AMK	4.04	0.26%
Himachal Pradesh	3.84	0.25%
Arunachal Pradesh	3.49	0.23%
KARCHAM WANGTOO	3.43	0.22%
NSPCL	2.58	0.17%
Dadra & Nagar Haveli	2.41	0.16%
ACBIL	2.36	0.15%
Nagaland	2.32	0.15%
BALCO	1.98	0.13%
AD HYDRO	1.84	0.12%
Kerala	1.75	0.11%
Mizoram	1.42	0.09%
SIMHAPURI	0.64	0.04%
Total	1524.32	100.00%
Volume of Export by top 5 States	599.31	39.32%

Table-14: VOLUME OF ELECTRICITY IMPORT THROUGH UI, OCTOBER 2013		
Name of the State/UT/Other Regional Entity	Volume of Import (MUs)	% of Volume
West Bengal	69.26	5.99%
Himachal Pradesh	64.31	5.56%
Haryana	63.72	5.51%
Gujarat	58.93	5.10%
J & K	58.85	5.09%
Uttar Pradesh	52.55	4.54%
Maharashtra	50.56	4.37%
DVC	48.22	4.17%
NHPC Stations	47.45	4.10%
STERLITE	44.47	3.85%
Uttarakhand	39.89	3.45%
Andhra Pradesh	39.33	3.40%
Bihar	38.71	3.35%
Delhi	37.21	3.22%
Punjab	37.06	3.21%
Kerala	35.41	3.06%
Assam	32.86	2.84%
Chhattisgarh	29.97	2.59%
JINDAL POWER	29.33	2.54%
Rajasthan	27.36	2.37%
CGPL	26.57	2.30%
Goa	20.19	1.75%
Tamilnadu	17.34	1.50%
Orissa	14.94	1.29%
MP	13.76	1.19%
Karnataka	12.34	1.07%
Arunachal Pradesh	12.18	1.05%
Dadra & Nagar Haveli	11.64	1.01%
Meghalaya	11.07	0.96%
NJPC	9.58	0.83%
UT Chandigarh	8.60	0.74%
ACBIL	6.97	0.60%
Mizoram	6.87	0.59%
Pondicherry	6.63	0.57%
MAITHON POWER LTD	6.52	0.56%
Jharkhand	6.15	0.53%
SIMHAPURI	6.12	0.53%
KARCHAM WANGTOO	5.86	0.51%
SHREE CEMENT	5.60	0.48%
NEEPCO Stations	5.50	0.48%
RGPL (Dabhol)	4.94	0.43%
Tripura	4.71	0.41%
Nagaland	4.55	0.39%
Daman and Diu	4.30	0.37%
Manipur	4.14	0.36%
BALCO	3.83	0.33%
LANKO_AMK	3.39	0.29%
DCPP	2.74	0.24%
Sikkim	1.98	0.17%
NSPCL	1.08	0.09%
AD HYDRO	0.75	0.06%
LANKO_KONDAPALLY	0.06	0.00%
Total	1156.36	100.00%
Volume of Import by top 5 States	315.07	27.25%

Table-15: TOTAL VOLUME OF NET SHORT-TERM TRANSACTIONS OF ELECTRICITY (REGIONAL ENTITY-WISE), OCTOBER 2013		
Sr.No.	Name of the State/UT/Other Regional Entity	Total volume of net short-term transactions of electricity*
1	Andhra Pradesh	1007.35
2	Rajasthan	859.54
3	Punjab	420.83
4	Tamilnadu	263.89
5	Uttarakhand	209.00
6	Gujarat	202.12
7	Uttar Pradesh	168.02
8	Bihar	165.04
9	Dadra & Nagar Haveli	155.59
10	Maharashtra	153.87
11	Jharkhand	110.26
12	MP	97.68
13	Assam	83.95
14	J & K	60.80
15	ESSAR STEEL	39.78
16	Daman and Diu	19.61
17	CGPL	17.55
18	Arunachal Pradesh	7.97
19	RGPPPL(Dabhol)	4.94
20	Mizoram	2.61
21	Pondicherry	2.06
22	Goa	1.55
23	Meenakshi	0.29
24	LANKO_KONDAPALLY	0.06
25	NHPC Stations	-0.14
26	Nagaland	-0.21
27	UT Chandigarh	-0.47
28	LANKO_AMK	-0.65
29	NSPCL	-1.50
30	Meghalaya	-2.76
31	Manipur	-3.36
32	Tripura	-4.87
33	BALCO	-5.94
34	RANGANADI HEP	-6.06
35	NEEPCO Stations	-7.33
36	LANCO BUDHIL	-13.44
37	NJPC	-15.20
38	CHUZACHEN HEP	-16.34
39	KSK MAHANADI	-20.50
40	ACBIL	-26.98
41	EMCO	-29.97
42	ESSAR POWER	-32.43
43	AD HYDRO	-32.77
44	Sikkim	-38.46
45	ADHUNIK POWER LTD	-46.00
46	West Bengal	-69.62
47	DVC	-72.02
48	DCPP	-91.41
49	Himachal Pradesh	-94.40
50	MAITHON POWER LTD	-110.62
51	Kerala	-117.17
52	SHREE CEMENT	-138.50
53	SIMHAPURI	-148.53
54	Orissa	-242.01
55	KARCHAM WANGTOO	-257.98
56	Chhattisgarh	-260.91
57	Delhi	-372.58
58	JINDAL POWER	-376.59
59	Haryana	-411.84
60	Karnataka	-415.78
61	STERLITE	-437.70
* 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-16: DETAILS OF CONGESTION IN POWER EXCHANGES, OCTOBER 2013			
	Details of Congestion	IEX	PXIL
A	Unconstrained Cleared Volume* (MUs)	3087.12	124.38
B	Actual Cleared Volume and hence scheduled (MUs)	2644.51	110.13
C	Volume of electricity that could not be cleared and hence not scheduled because of congestion (MUs) (A-B)	442.61	14.25
D	Volume of electricity that could not be cleared as % to Unconstrained Cleared Volume	14.34%	11.46%
E	Percentage of the time congestion occurred during the month (Number of hours congestion occurred/Total number of hours in the month)	100.00%	70.43%
F	Congestion occurrence (%) time block wise		
	0.00 - 6.00 hours	25.00%	27.48%
	6.00 - 12.00 hours	25.00%	27.43%
	12.00 - 18.00 hours	25.00%	21.99%
	18.00 - 24.00 hours	25.00%	23.09%
* This power would have been scheduled had there been no congestion.			
Source: IEX & PXIL			

Table-17: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY IN INDIA (MUs), OCTOBER 2013 (DAY-WISE)						Total Electricity Generation (MU) as given at CEA Website*
Date	Bilateral		Power Exchange (Area Clearing Volume# of Day Ahead Market)		Unscheduled Interchange (Over Draw+Under Generation)	
	Through Traders and PXs**	Direct	IEX	PXI		
1-Oct-13	84.79	54.28	93.10	1.99	50.70	2646.17
2-Oct-13	84.45	54.04	101.25	1.90	53.88	2584.64
3-Oct-13	88.76	53.88	95.88	1.94	51.12	2592.86
4-Oct-13	74.20	53.78	94.07	2.63	54.52	2553.81
5-Oct-13	70.53	54.02	92.99	2.02	51.36	2545.70
6-Oct-13	75.83	53.12	79.17	1.33	56.18	2530.55
7-Oct-13	97.08	53.82	85.85	1.93	57.61	2530.55
8-Oct-13	104.46	54.14	93.32	2.07	57.74	2642.91
9-Oct-13	104.49	55.37	95.87	2.39	56.53	2594.85
10-Oct-13	103.00	53.74	102.44	4.21	53.24	2684.80
11-Oct-13	89.56	54.87	100.53	5.00	63.80	2647.60
12-Oct-13	82.23	52.85	83.50	4.84	52.21	2615.10
13-Oct-13	77.44	50.98	69.45	2.83	76.89	2337.98
14-Oct-13	81.30	53.09	79.90	3.04	67.56	2361.36
15-Oct-13	85.20	53.68	73.69	2.99	68.33	2443.79
16-Oct-13	85.19	53.67	92.59	2.61	63.04	2553.25
17-Oct-13	83.38	52.46	93.65	4.03	64.69	2608.09
18-Oct-13	76.42	52.12	86.64	2.27	55.76	2610.00
19-Oct-13	78.46	52.12	83.33	2.92	52.30	2612.42
20-Oct-13	81.79	50.50	77.80	2.73	50.84	2552.28
21-Oct-13	79.23	56.71	78.87	2.26	56.30	2595.62
22-Oct-13	79.99	56.92	75.54	3.82	58.66	2601.30
23-Oct-13	73.02	56.60	77.48	4.75	53.44	2560.00
24-Oct-13	81.27	55.33	79.28	4.44	52.31	2541.05
25-Oct-13	76.62	54.96	77.16	6.42	48.50	2506.94
26-Oct-13	77.71	54.76	77.83	5.88	50.96	2489.67
27-Oct-13	72.46	52.39	75.68	4.29	57.19	2449.79
28-Oct-13	71.68	53.98	75.13	4.21	52.34	2565.59
29-Oct-13	73.83	54.63	80.41	5.03	49.79	2590.01
30-Oct-13	73.06	54.37	83.06	6.15	53.38	2638.45
31-Oct-13	69.75	54.22	89.03	7.19	47.95	2644.00
Total	2537.18	1671.40	2644.51	110.13	1739.13	79431.13
Source: NLDC						
* Gross Electricity Generation excluding electricity generation from renewables and captive power plants.						
** The volume of bilateral through PXs represents the volume through term-ahead contracts.						
# Area Clearing Volume represents the scheduled volume of all the bid areas.						

Table-18: PRICE OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (₹/kWh), OCTOBER 2013 (DAY-WISE)												
Market Segment	Day ahead market of IEX			Day ahead market of PXIL			Under Drawl/Over Drawl from the Grid (UI)					
Date	Mini-mum ACP	Maxi-mum ACP	Weighted Average Price*	Mini-mum ACP	Maxi-mum ACP	Weighted Average Price*	NEW Grid			SR Grid		
							Mini-mum Price	Maxi-mum Price	Average Price**	Mini-mum Price	Maxi-mum Price	Average Price**
1-Oct-13	2.10	5.51	2.72	2.15	3.70	2.59	0.17	4.78	2.00	0.00	7.09	2.45
2-Oct-13	1.75	5.60	2.95	1.99	3.70	2.51	0.00	4.78	1.05	0.00	5.91	2.19
3-Oct-13	1.75	8.50	2.79	2.00	3.20	2.57	0.00	4.78	1.41	0.17	5.06	2.40
4-Oct-13	2.00	14.00	2.71	2.10	3.01	2.50	0.00	5.63	1.40	0.33	7.09	2.70
5-Oct-13	2.00	17.10	2.56	2.00	2.75	2.35	0.00	7.09	1.65	0.00	7.65	3.06
6-Oct-13	2.00	12.00	2.42	2.00	2.50	2.32	0.00	3.65	0.96	0.00	5.34	2.26
7-Oct-13	2.00	10.00	2.77	2.00	2.80	2.26	0.00	7.09	2.01	0.83	5.91	3.24
8-Oct-13	2.15	17.50	2.89	2.00	3.51	2.54	0.17	4.78	2.05	0.33	7.93	3.58
9-Oct-13	2.15	16.00	2.95	2.25	3.80	2.73	0.00	5.63	1.50	0.00	5.91	2.28
10-Oct-13	2.30	5.61	3.02	2.45	3.70	2.84	0.00	5.63	1.74	0.00	9.06	2.96
11-Oct-13	2.20	7.01	2.97	2.25	3.50	2.62	0.00	3.93	0.98	0.00	7.09	2.62
12-Oct-13	2.10	12.00	2.60	1.96	3.65	2.49	0.00	3.36	1.24	0.00	5.06	1.72
13-Oct-13	1.50	20.00	2.08	1.75	7.00	2.17	0.00	4.22	0.69	0.00	7.37	2.67
14-Oct-13	1.50	20.00	2.26	1.50	2.50	2.00	0.00	7.93	1.47	0.33	5.91	2.84
15-Oct-13	1.50	13.00	2.33	1.55	3.52	2.06	0.33	7.09	2.66	0.00	7.65	3.72
16-Oct-13	2.00	20.00	2.59	1.50	3.52	2.10	0.00	5.06	1.86	0.66	7.65	3.97
17-Oct-13	2.00	8.52	2.66	1.97	3.01	2.29	0.00	8.78	1.58	0.17	8.49	3.63
18-Oct-13	1.90	8.51	2.75	1.97	3.90	2.47	0.17	4.22	1.91	0.66	8.21	3.94
19-Oct-13	1.90	15.00	2.71	1.99	3.00	2.37	0.00	4.78	2.17	0.00	7.65	2.84
20-Oct-13	1.85	5.51	2.52	1.89	2.50	2.14	0.00	4.50	1.50	0.00	5.34	1.92
21-Oct-13	1.88	20.00	2.71	2.00	2.70	2.32	0.17	5.63	2.14	0.00	5.63	2.30
22-Oct-13	1.75	19.00	2.59	2.00	3.51	2.36	0.00	3.65	1.51	0.00	5.91	1.63
23-Oct-13	1.75	20.00	2.48	1.95	3.52	2.34	0.17	7.09	2.06	0.00	7.65	2.11
24-Oct-13	1.75	2.94	2.41	1.77	2.90	2.32	0.17	8.21	2.39	0.00	5.91	2.44
25-Oct-13	1.80	4.35	2.55	1.77	2.90	2.35	0.17	5.63	2.12	0.00	7.65	2.00
26-Oct-13	1.80	3.50	2.57	1.85	3.25	2.42	0.00	7.09	2.02	0.00	5.06	2.04
27-Oct-13	1.75	17.00	2.45	1.85	3.17	2.33	0.00	3.65	1.64	0.00	4.22	1.33
28-Oct-13	1.65	16.50	2.64	1.85	3.01	2.41	0.00	4.50	1.93	0.00	4.78	1.40
29-Oct-13	1.65	8.51	2.68	1.85	3.30	2.41	0.66	4.22	2.20	0.00	5.91	2.34
30-Oct-13	1.95	11.00	2.55	1.85	3.40	2.63	0.00	5.63	2.56	0.17	5.63	3.38
31-Oct-13	1.90	8.51	2.83	1.85	3.51	2.42	0.66	5.63	2.31	0.00	5.91	2.54
	1.50#	20.00#	2.65	1.50#	7.00#	2.41	0.00#	8.78#	1.76	0.00#	9.06#	2.60
Source: Data on price of PX transactions from IEX and PXIL and data on UI Price from NLDC.												
* Weighted average price computed based on Area Clearing Volume (ACV) and Area Clearing Price (ACP) for each hour of the day. Here, ACV and ACP represent the scheduled volume and weighted average price of all the bid areas of power exchanges.												
** 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												

Table-19: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (REGIONAL ENTITY*-WISE) (MUs), OCTOBER 2013

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	52.80	127.70	74.90	0.00	358.99	358.99	50.12	37.06	-13.06	420.83
Haryana	524.81	37.12	-487.69	61.25	174.12	112.86	100.74	63.72	-37.02	-411.84
Rajasthan	113.87	847.84	733.97	36.44	263.75	227.31	129.10	27.36	-101.74	859.54
Delhi	162.21	93.99	-68.22	307.30	11.47	-295.82	45.75	37.21	-8.54	-372.58
Uttar Pradesh	170.38	85.79	-84.59	0.00	333.72	333.72	133.66	52.55	-81.10	168.02
Uttarakhand	0.00	132.88	132.88	16.96	69.73	52.76	16.53	39.89	23.36	209.00
Himachal Pradesh	152.54	39.12	-113.43	73.03	31.60	-41.43	3.84	64.31	60.46	-94.40
J & K	52.77	15.74	-37.03	19.40	73.60	54.20	15.22	58.85	43.63	60.80
UT Chandigarh	0.00	0.00	0.00	6.49	1.76	-4.73	4.33	8.60	4.27	-0.47
MP	0.00	589.80	589.80	448.38	48.53	-399.84	106.03	13.76	-92.27	97.68
Maharashtra	96.31	129.00	32.69	16.75	217.14	200.39	129.78	50.56	-79.21	153.87
Gujarat	296.53	269.24	-27.28	382.44	645.43	262.99	92.52	58.93	-33.59	202.12
Chhattisgarh	22.41	7.62	-14.80	205.08	0.00	-205.08	71.00	29.97	-41.04	-260.91
Daman and Diu	0.00	0.00	0.00	0.00	23.24	23.24	7.93	4.30	-3.63	19.61
Dadra & Nagar Haveli	0.00	146.36	146.36	0.00	0.00	0.00	2.41	11.64	9.24	155.59
Andhra Pradesh	0.00	775.81	775.81	27.74	258.03	230.29	38.08	39.33	1.25	1007.35
Karnataka	336.75	6.92	-329.84	84.47	25.63	-58.84	39.45	12.34	-27.11	-415.78
Kerala	169.56	29.74	-139.82	15.54	4.54	-11.01	1.75	35.41	33.66	-117.17
Tamilnadu	0.00	273.07	273.07	0.00	46.25	46.25	72.77	17.34	-55.43	263.89
Pondicherry	0.00	0.00	0.00	0.00	0.00	0.00	4.56	6.63	2.06	2.06
West Bengal	119.41	171.80	52.39	147.39	6.48	-140.91	50.35	69.26	18.90	-69.62
Orissa	40.56	0.00	-40.56	146.80	5.07	-141.73	74.66	14.94	-59.72	-242.01
Bihar	0.00	99.39	99.39	0.00	87.52	87.52	60.58	38.71	-21.87	165.04
Jharkhand	19.49	173.06	153.57	0.00	0.00	0.00	49.46	6.15	-43.31	110.26
Sikkim	15.75	0.00	-15.75	12.47	0.00	-12.47	12.22	1.98	-10.24	-38.46
DVC	156.17	74.67	-81.50	14.79	0.00	-14.79	23.95	48.22	24.27	-72.02
Arunachal Pradesh	0.00	0.00	0.00	1.77	1.05	-0.72	3.49	12.18	8.69	7.97
Assam	0.00	67.92	67.92	13.00	20.61	7.62	24.45	32.86	8.41	83.95
Manipur	0.00	0.00	0.00	0.00	0.00	0.00	7.49	4.14	-3.36	-3.36
Meghalaya	8.43	0.70	-7.73	6.99	5.46	-1.53	4.56	11.07	6.50	-2.76
Mizoram	1.50	0.00	-1.50	1.33	0.00	-1.33	1.42	6.87	5.45	2.61
Nagaland	0.00	0.00	0.00	2.44	0.00	-2.44	2.32	4.55	2.23	-0.21
Tripura	4.69	3.50	-1.19	0.74	1.16	0.42	8.81	4.71	-4.10	-4.87
Goa	8.49	0.00	-8.49	0.00	0.00	0.00	10.14	20.19	10.05	1.55
NHPC Stations	0.00	0.00	0.00	0.00	0.00	0.00	47.59	47.45	-0.14	-0.14
NJPC	0.00	0.00	0.00	12.57	0.00	-12.57	12.21	9.58	-2.63	-15.20
AD HYDRO	19.65	0.00	-19.65	12.03	0.00	-12.03	1.84	0.75	-1.09	-32.77
KARCHAM WANGTOO	55.77	0.00	-55.77	204.65	0.00	-204.65	3.43	5.86	2.43	-257.98
SHREE CEMENT	105.22	0.00	-105.22	34.36	0.00	-34.36	4.52	5.60	1.08	-138.50
LANCO BUDHIL	0.00	0.00	0.00	13.44	0.00	-13.44	0.00	0.00	0.00	-13.44
JINDAL POWER	369.71	0.00	-369.71	31.65	0.00	-31.65	4.56	29.33	24.77	-376.59
LANCO_AMK	0.00	0.00	0.00	0.00	0.00	0.00	4.04	3.39	-0.65	-0.65
NSPCL	0.00	0.00	0.00	0.00	0.00	0.00	2.58	1.08	-1.50	-1.50
ACBIL	19.77	0.00	-19.77	11.82	0.00	-11.82	2.36	6.97	4.61	-26.98
BALCO	0.00	0.00	0.00	7.80	0.00	-7.80	1.98	3.83	1.86	-5.94
RGPPPL(Dabhol)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.94	4.94	4.94
CGPL	0.00	0.00	0.00	0.00	0.00	0.00	9.02	26.57	17.55	17.55
DCPP	52.42	0.00	-52.42	29.71	0.00	-29.71	12.02	2.74	-9.28	-91.41
EMCO	0.00	0.00	0.00	29.97	0.00	-29.97	0.00	0.00	0.00	-29.97
ESSAR STEEL	0.00	0.00	0.00	0.00	39.78	39.78	0.00	0.00	0.00	39.78

KSK MAHANADI	0.00	0.00	0.00	20.50	0.00	-20.50	0.00	0.00	0.00	-20.50
ESSAR POWER	0.00	0.00	0.00	32.43	0.00	-32.43	0.00	0.00	0.00	-32.43
LANKO_KONDAPALLY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	0.06
SIMHAPURI	134.05	0.00	-134.05	19.97	0.00	-19.97	0.64	6.12	5.49	-148.53
Meenakshi	0.00	0.99	0.99	0.70	0.00	-0.70	0.00	0.00	0.00	0.29
STERLITE	335.49	0.00	-335.49	141.38	0.00	-141.38	5.30	44.47	39.17	-437.70
MAITHON POWER LTD	82.92	0.00	-82.92	29.52	0.00	-29.52	4.70	6.52	1.82	-110.62
ADHUNIK POWER LTD	0.00	0.00	0.00	46.00	0.00	-46.00	0.00	0.00	0.00	-46.00
CHUZACHEN HEP	0.00	0.00	0.00	16.34	0.00	-16.34	0.00	0.00	0.00	-16.34
NEEPCO Stations	0.00	0.00	0.00	4.77	0.00	-4.77	8.06	5.50	-2.56	-7.33
RANGANADI HEP	0.00	0.00	0.00	6.06	0.00	-6.06	0.00	0.00	0.00	-6.06

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-20 : VOLUME AND PRICE OF RENEWABLE ENERGY CERTIFICATES (RECs) TRANSACTIONED THROUGH POWER EXCHANGES, OCTOBER 2013					
Sr.No.	Details of REC Transactions	IEX		PXIL	
		Solar	Non-Solar	Solar	Non Solar
A	Volume of Buy Bid	6548	98921	2709	51719
B	Volume of Sell Bid	48515	2447684	19439	1438712
C	Ratio of Buy Bid to Sell Bid Volume	0.13	0.04	0.14	0.04
D	Market Clearing Volume (MWh)	6548	98921	2709	51719
E	Market Clearing Price (₹/MWh)	9300	1500	9300	1500

Source: IEX and PXIL

Note 1: 1 REC = 1 MWh

Note 2:

<i>Forbearance and Floor Price w.e.f 1st April 2012</i>		
Type of REC	<i>Floor Price (₹/MWh)</i>	<i>Forbearance Price (₹/MWh)</i>
<i>Solar</i>	<i>9300.00</i>	<i>13400.00</i>
<i>Non-Solar</i>	<i>1500.00</i>	<i>3300.00</i>