



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
DVC	Damodar Valley Corporation
EMCO	EMCO Energy Limited
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
LANCO_AMK	Lanco Amarkantak Power Private Limited
LANCO_KONDAPALLY	Lanco Kondapalli Power Limited
Meenakshi	Meenakshi Energy Private Limited
MP	Madhya Pradesh
MUs	Million Units
NEEPCO Stations	North Eastern Electric Power Corporation Limited.
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
RGPL	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 August, 2013 is as under:

I: Volume of Short-term Transactions of Electricity

During the month of August 2013, total electricity generation excluding generation from renewable and captive power plants in India was 79480.71 MUs (Table-1).

Of the total electricity generation, 9107.38 MUs (11.46%) were transacted through short-term, comprising of 4744.63 MUs (5.97%) through Bilateral (through traders and term-ahead contracts on Power Exchanges and directly between distribution companies), followed by 2428.13 MUs (3.05%) through day ahead collective transactions on Power Exchanges (IEX and PXIL) and 1934.62 MUs (2.43%) through UI (Table-1 & Figure-2).

Of the total short-term transactions, Bilateral constitute 52.10% (31.60% through traders and term-ahead contracts on Power Exchanges and 20.50% directly between distribution companies) followed by 26.66% through day ahead collective transactions on Power Exchanges and 21.24% 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 44 trading licensees as on 31.08.2013, of which only 21 have engaged in trading during August 2013. Top 5 trading licensees had a share of 70.33% 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 0.1533 for the month of August 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 2341.73 MUs and 86.40 MUs respectively. The volume of total Buy bids and Sale bids was 2899.40 MUs and 5203.62 MUs respectively in IEX and 119.07 MUs and 392.07 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 (0.56 times) and PXIL (0.30 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 6.58 MUs and 1.10 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 ₹4.16/kWh, ₹4.98/kWh and ₹3.57/kWh respectively. Minimum and Maximum sale prices were ₹2.03/kWh and ₹7.32/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 ₹0.75/kWh, ₹12.00/kWh and ₹2.07/kWh respectively in IEX and ₹0.95/kWh, ₹3.70/kWh and ₹1.89/kWh respectively in PXIL (Table-5).

The price of electricity transacted through IEX and PXIL in the term-ahead market was ₹2.52/kWh and ₹2.50/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 ₹1.30/kWh in the NEW Grid and ₹1.98/kWh in the SR Grid. Minimum and Maximum UI prices were ₹0.00/kWh and ₹10.80/kWh respectively in the New Grid, and ₹0.00/kWh and ₹10.80/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 53.98% of the volume, and these were Madhya Pradesh, Himachal Pradesh, UT Chandigarh, Karcham Wangtoo and Rajasthan. Top 5 regional entities purchased 72.13% of the volume, and these were Punjab, Andhra Pradesh, Uttar Pradesh, Delhi and West Bengal (Table-9, 10 & 19).

Of the total Power Exchange transactions, top 5 regional entities sold 57.54% of the volume, and these were Karcham Wangtoo, Delhi, Madhya Pradesh, Himachal Pradesh and Gujarat. Top 5 regional entities purchased 65.89% of the volume, and these were Gujarat, Rajasthan, Andhra Pradesh, Essar Steel and Uttar Pradesh (Table-11, 12 & 19).

Of the total UI transactions, top 5 regional entities underdrew 50.69% of the volume, and these were Haryana, Rajasthan, Uttar Pradesh, Delhi and Punjab. Top 5 regional entities overdrew 39.10% of the volume, and these were Maharashtra, Gujarat, Sterlite Energy Ltd, West Bengal and Uttar Pradesh (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 Madhya Pradesh, Karcham Wangtoo, Himachal Pradesh, UT Chandigarh and Jindal Power. Top 5 electricity purchasing regional entities were Punjab, Andhra Pradesh, Uttar Pradesh, Gujarat and West Bengal.

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 August 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 14.05% and 13.50% of the unconstrained cleared volume in IEX and PXIL, respectively. In terms of time, congestion occurred was 99.13% in IEX and 46.74% 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 August 2013 are shown in Table-20. The market clearing volume of Solar RECs transacted on IEX and PXIL were 1754 and 605 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 31101 and 9788 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 0.08 and 0.09 in IEX and PXIL respectively. For Non-Solar RECs, the ratio of buy and sell bids was 0.02 and 0.01 in IEX and PXIL respectively.

VI: Inferences:

- The percentage of short-term transactions of electricity to total electricity generation was 11.46%.
- Of the total short-term transactions of electricity, 52.10% was transacted through bilateral (through traders and term ahead contracts on power exchanges and directly by distribution companies), followed by 26.66% through Power Exchanges and 21.24% through UI.
- Top 5 trading licensees had a share of 70.33% in the total volume traded by all the trading licensees.
- The Herfindahl Hirschman Index computed for volume of electricity traded by trading licensees was 0.1533, 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 (₹2.07/kWh) and PXIL (₹1.89/kWh) respectively.
- The price of electricity transacted through UI was ₹1.30/kWh in the NEW Grid and ₹1.98/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: 0.56) and PXIL (1: 0.30) when compared with the supply offered through these exchanges.
- Top 5 electricity selling regional entities were Madhya Pradesh, Karcham Wangtoo, Himachal Pradesh, UT Chandigarh and Jindal Power. Top 5 electricity purchasing regional entities were Punjab, Andhra Pradesh, Uttar Pradesh, Gujarat and West Bengal.
- The volume of electricity that could not be cleared in the power exchanges due to congestion was 14.05% and 13.50% of the unconstrained cleared volume in IEX and PXIL, respectively. In terms of time, congestion occurred was 99.13% in IEX and 46.74% in PXIL.
- The market clearing volume of Solar RECs transacted on IEX and PXIL were 1754 and 605 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 31101 and 9788 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), AUGUST 2013				
Sr.No	Short-term transactions	Volume (MUs)	% to Volume of short-term transactions	% to Total Generation
1	Bilateral	4744.63	52.10%	5.97%
	(i) Through Traders and PXs	2877.86	31.60%	3.62%
	(ii) Direct	1866.77	20.50%	2.35%
2	Through Power Exchanges	2428.13	26.66%	3.05%
	(i) IEX	2341.73	25.71%	2.95%
	(ii) PXIL	86.40	0.95%	0.11%
3	Through UI	1934.62	21.24%	2.43%
	Total	9107.38	100.00%	11.46%
	Total Generation	79480.71	—	—

Source: NLDC

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

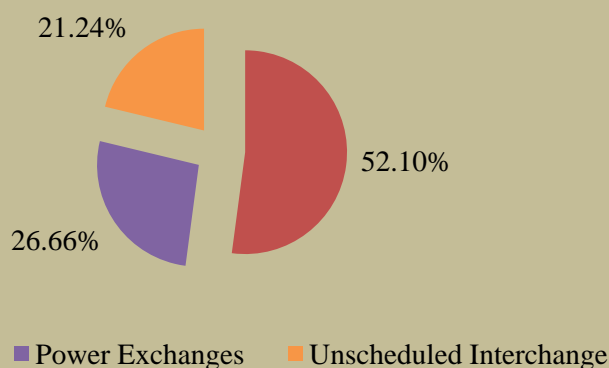


Figure-2: Volume of Various Kinds of Electricity Transactions in Total Electricity Generation, August 2013

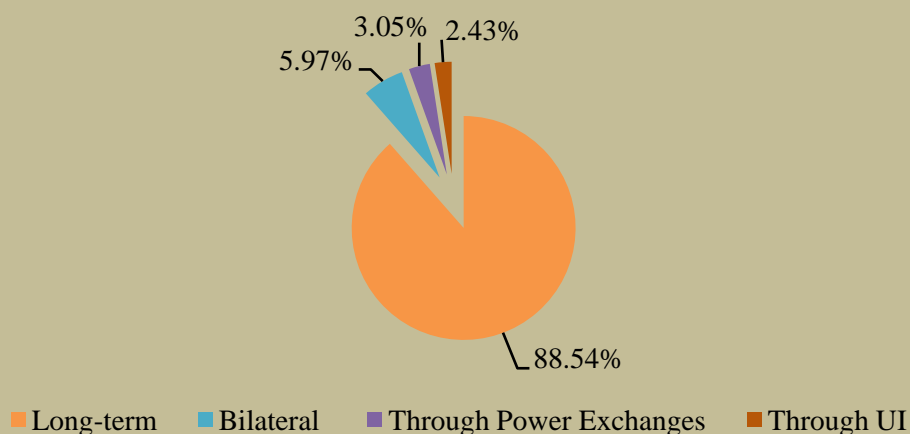


Figure-3: Volume of Short-term Transactions of Electricity, August 2013 (Day-wise)

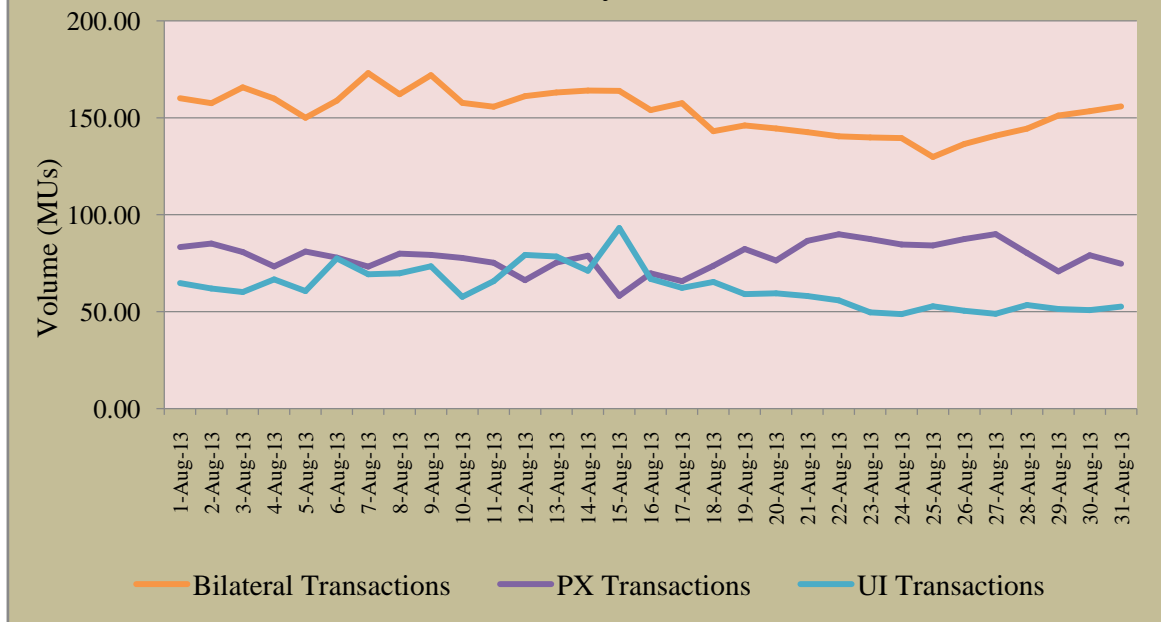


Table-2: PERCENTAGE SHARE OF ELECTRICITY TRANSACTED BY TRADING LICENSEES, AUGUST 2013			
Sr.No	Name of the Trading Licensee	% Share in total Volume transacted by Trading Licensees	Herfindahl-Hirschman Index
1	PTC India Ltd.	32.61%	0.1064
2	Tata Power Trading Company (P) Ltd.	11.73%	0.0138
3	JSW Power Trading Company Ltd	11.32%	0.0128
4	Reliance Energy Trading (P) Ltd	7.69%	0.0059
5	Jaiprakash Associates Ltd.	6.98%	0.0049
6	Mittal Processors (P) Ltd.	5.26%	0.0028
7	NTPC Vidyut Vyapar Nigam Ltd.	4.56%	0.0021
8	Knowledge Infrastructure Systems (P) Ltd	3.64%	0.0013
9	Shree Cement Ltd.	3.17%	0.0010
10	Essar Electric Power Development Corp. Ltd.	3.07%	0.0009
11	National Energy Trading & Services Ltd.	2.15%	0.0005
12	GMR Energy Trading Ltd.	2.06%	0.0004
13	Manikaran Power Ltd.	1.56%	0.0002
14	Instinct Infra & Power Ltd.	1.22%	0.0001
15	RPG Power Trading Company Ltd.	1.11%	0.0001
16	Adani Enterprises Ltd.	0.72%	0.0001
17	Arunachal Pradesh Power Corporation (P) ltd	0.55%	0.0000
18	Pune Power Development (P) Ltd.	0.25%	0.0000
19	Indrajit Power Technology (P) Ltd.	0.19%	0.0000
20	Customized Energy Solutions India (P) Ltd.	0.10%	0.0000
21	Ambitious Power Trading Company Ltd.	0.06%	0.0000
TOTAL		100.00%	0.1533
Top 5 trading licensees		70.33%	
<i>Note 1: Volume of electricity transacted by the trading licensees includes bilateral transactions</i>			
<i>Note 2: Volume of electricity transacted by Global Energy Ltd is not included.</i>			
<i>Source: Information submitted by trading licensees</i>			

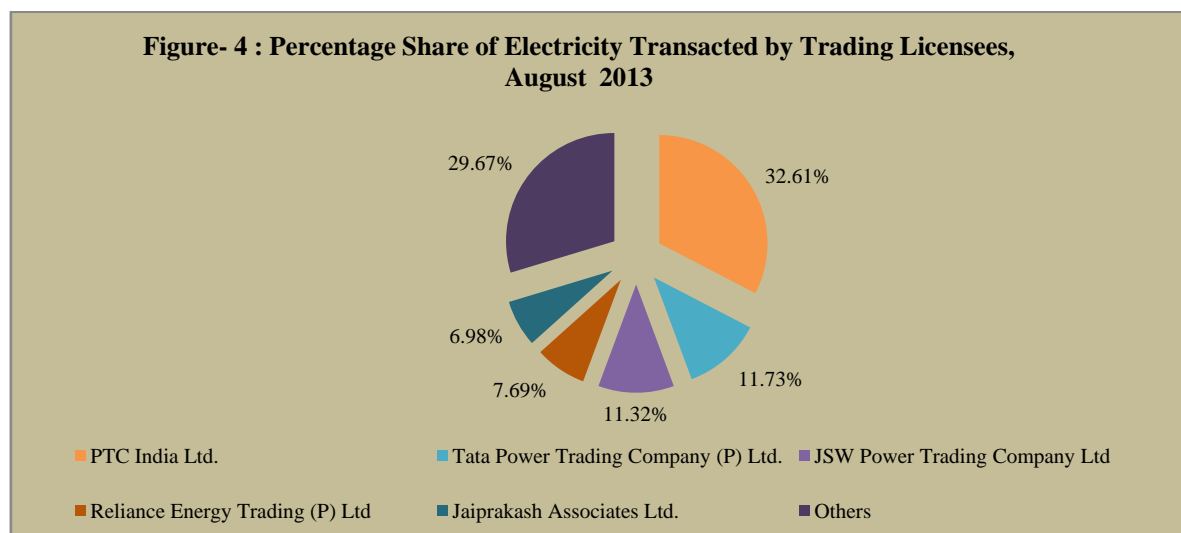


Table-3: PRICE OF ELECTRICITY TRANSACTED THROUGH TRADERS, AUGUST 2013		
Sr.No		Sale Price of Traders (₹/kWh)
1	Minimum	2.03
2	Maximum	7.32
3	Weighted Average	4.15

Source: Information submitted by trading licensees

Table-4: PRICE OF ELECTRICITY TRANSACTED THROUGH TRADERS (TIME-WISE), AUGUST 2013		
Sr.No	Period of Trade	Sale Price of Traders (₹/kWh)
1	RTC	4.16
2	PEAK	4.98
3	OFF PEAK	3.57

Source: Information submitted by trading licensees

Table-5: PRICE OF ELECTRICITY TRANSACTED THROUGH POWER EXCHANGES, AUGUST 2013			
Sr.No	ACP	Price in IEX (₹/kWh)	Price in PXIL (₹/kWh)
1	Minimum	0.75	0.95
2	Maximum	12.00	3.70
3	Weighted Average	2.07	1.89

Source: Information submitted by IEX and PXIL

Table-6: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF IEX, AUGUST 2013			
Sr.No	Term ahead contracts	Actual Scheduled Volume (MUs)	Weighted Average Price (₹/kWh)
1	Intra-Day Contracts	5.10	2.49
2	Day Ahead Contingency Contracts	1.48	2.61
	Total	6.58	2.52

Source: IEX

Table-7: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF PXIL, AUGUST 2013			
Sr.No	Term ahead contracts	Actual Scheduled Volume (MUs)	Weighted Average Price (₹/kWh)
1	Intra-Day Contracts	1.10	2.50
	Total	1.10	2.50

Source: PXIL

Table-8: PRICE OF ELECTRICITY TRANSACTED THROUGH UI, AUGUST 2013			
Sr.No		Price in NEW Grid (₹/kWh)	Price in SR Grid (₹/kWh)
1	Minimum	0.00	0.00
2	Maximum	10.80	10.80
3	Average	1.30	1.98

Source: NLDC

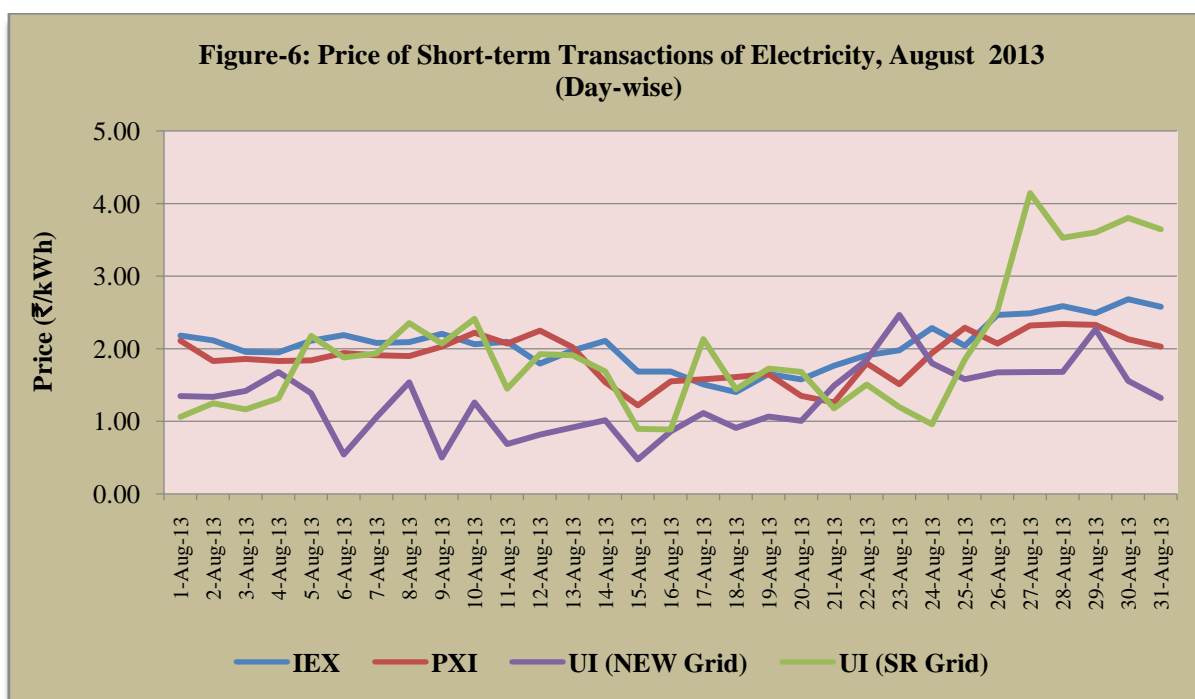
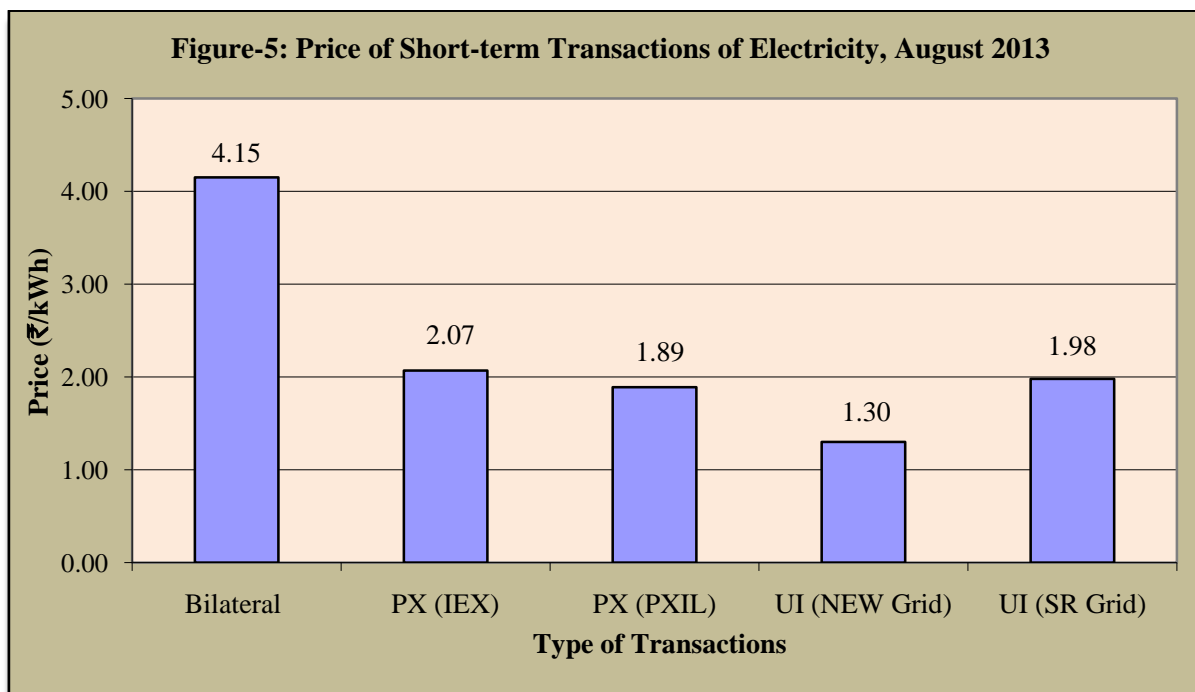


Table-9: VOLUME OF ELECTRICITY SALE THROUGH BILATERAL, AUGUST 2013		
Name of the State/UT/Other Regional Entity	Volume of Sale (MUs)	% of Volume
MP	856.82	17.73%
Himachal Pradesh	604.89	12.52%
UT Chandigarh	449.56	9.30%
KARCHAM WANGTOO	349.73	7.24%
Rajasthan	347.38	7.19%
STERLITE	331.36	6.86%
Karnataka	270.20	5.59%
JINDAL POWER	257.15	5.32%
J & K	220.58	4.56%
Maharashtra	182.99	3.79%
West Bengal	155.23	3.21%
DVC	148.34	3.07%
Gujarat	135.16	2.80%
SIMHAPURI	122.20	2.53%
SHREE CEMENT	91.69	1.90%
AD HYDRO	70.15	1.45%
Meghalaya	39.92	0.83%
Delhi	37.50	0.78%
Chattisgarh	36.85	0.76%
Uttarakhand	31.88	0.66%
Sikkim	31.25	0.65%
Orissa	28.14	0.58%
ACBIL	19.04	0.39%
Tripura	8.19	0.17%
Jharkhand	4.91	0.10%
Haryana	0.92	0.02%
MAITHON POWER LTD	0.36	0.01%
Total	4832.38	100.00%
Volume of sale by top 5 States	2608.38	53.98%

Table-10: VOLUME OF ELECTRICITY PURCHASE THROUGH BILATERAL, AUGUST 2013		
Name of the State/UT/Other Regional Entity	Volume of Purchase (MUs)	% of Volume
Punjab	1277.64	27.25%
Andhra Pradesh	632.60	13.49%
Uttar Pradesh	550.62	11.74%
Delhi	468.63	10.00%
West Bengal	452.59	9.65%
Haryana	318.02	6.78%
Jharkhand	180.38	3.85%
Tamilnadu	171.48	3.66%
Gujarat	161.11	3.44%
Maharashtra	113.57	2.42%
Dadra & Nagar Haveli	109.67	2.34%
Karnataka	88.07	1.88%
Assam	65.00	1.39%
Bihar	39.06	0.83%
Kerala	19.49	0.42%
Chattisgarh	8.79	0.19%
Himachal Pradesh	8.75	0.19%
Sikkim	7.41	0.16%
UT Chandigarh	5.09	0.11%
Goa	4.16	0.09%
Rajasthan	2.52	0.05%
Tripura	1.86	0.04%
Meenakshi	0.99	0.02%
MP	0.60	0.01%
J & K	0.50	0.01%
Uttarakhand	0.02	0.00%
Total	4688.61	100.00%
Volume of Purchase by top 5 States	3382.07	72.13%

Table-11: VOLUME OF ELECTRICITY SALE THROUGH POWER EXCHANGES, AUGUST 2013		
Name of the State/UT/Other Regional Entity	Volume of Sale (MUs)	% of Volume
KARCHAM WANGTOO	471.26	19.41%
Delhi	310.11	12.77%
MP	229.33	9.44%
Himachal Pradesh	208.91	8.60%
Gujarat	177.43	7.31%
JINDAL POWER	118.50	4.88%
Kerala	88.98	3.66%
Haryana	88.50	3.64%
Karnataka	72.08	2.97%
Maharashtra	61.89	2.55%
AD HYDRO	53.16	2.19%
J & K	50.82	2.09%
Uttarakhand	49.58	2.04%
LANCO BUDHIL	49.16	2.02%
Andhra Pradesh	45.39	1.87%
CHUZACHEN HEP	37.41	1.54%
Rajasthan	37.02	1.52%
Chattisgarh	36.41	1.50%
SIMHAPURI	29.96	1.23%
STERLITE	28.46	1.17%
Sikkim	23.37	0.96%
Meghalaya	21.41	0.88%
West Bengal	19.32	0.80%
DVC	17.76	0.73%
ADHUNIK POWER LTD	13.82	0.57%
Orissa	12.32	0.51%
MAITHON POWER LTD	11.10	0.46%
EMCO	10.95	0.45%
ACBIL	10.80	0.44%
Assam	10.01	0.41%
Arunachal Pradesh	7.31	0.30%
Nagaland	6.20	0.26%
UT Chandigarh	5.68	0.23%
KSK MAHANADI	5.54	0.23%
Mizoram	2.22	0.09%
RANGANADI HEP	1.77	0.07%
NEEPCO Stations	1.68	0.07%
Punjab	1.23	0.05%
Meenakshi	0.77	0.03%
SHREE CEMENT	0.53	0.02%
BALCO	0.02	0.00%
Total	2428.15	100.00%
Volume of sale by top 5 States	1397.05	57.54%

Table-12: VOLUME OF ELECTRICITY PURCHASE THROUGH POWER EXCHANGES, AUGUST 2013		
Name of the State/UT/Other Regional Entity	Volume of Purchase (MUs)	% of Volume
Gujarat	652.08	26.86%
Rajasthan	335.71	13.83%
Andhra Pradesh	279.75	11.52%
ESSAR STEEL	168.88	6.95%
Uttar Pradesh	163.40	6.73%
Haryana	158.92	6.54%
Maharashtra	150.46	6.20%
Punjab	140.17	5.77%
Tamilnadu	80.50	3.32%
MP	64.61	2.66%
Uttarakhand	62.64	2.58%
Chattisgarh	27.85	1.15%
Karnataka	25.97	1.07%
Assam	25.34	1.04%
Kerala	22.53	0.93%
J & K	15.35	0.63%
West Bengal	15.25	0.63%
Daman and Diu	13.52	0.56%
Himachal Pradesh	10.91	0.45%
Meghalaya	5.31	0.22%
Goa	2.60	0.11%
Bihar	2.40	0.10%
Delhi	2.04	0.08%
Tripura	1.66	0.07%
Orissa	0.20	0.01%
UT Chandigarh	0.11	0.00%
Total	2428.14	100.00%
Volume of purchase by top 5 States	1599.81	65.89%

Table-13: VOLUME OF ELECTRICITY EXPORT THROUGH UI, AUGUST 2013		
Name of the State/UT/Other Regional	Volume of Export	% of Volume
Haryana	388.74	23.62%
Rajasthan	146.17	8.88%
Uttar Pradesh	126.91	7.71%
Delhi	103.81	6.31%
Punjab	68.63	4.17%
Jharkhand	64.34	3.91%
MP	63.47	3.86%
Maharashtra	55.27	3.36%
Bihar	50.76	3.08%
Karnataka	47.52	2.89%
NHPC Stations	43.54	2.65%
J & K	40.38	2.45%
Uttarakhand	38.44	2.34%
Gujarat	37.62	2.29%
Tamilnadu	36.91	2.24%
Chattisgarh	35.80	2.18%
Himachal Pradesh	30.41	1.85%
West Bengal	30.34	1.84%
Andhra Pradesh	27.59	1.68%
Assam	21.16	1.29%
Kerala	20.00	1.22%
DVC	18.28	1.11%
Orissa	16.84	1.02%
JINDAL POWER	13.34	0.81%
Manipur	10.99	0.67%
AD HYDRO	10.06	0.61%
CGPL	10.04	0.61%
Sikkim	9.38	0.57%
KARCHAM WANGTOO	8.26	0.50%
Goa	8.02	0.49%
Pondicherry	7.48	0.45%
Meghalaya	7.39	0.45%
Arunachal Pradesh	6.61	0.40%
UT Chandigarh	6.45	0.39%
NJPC	5.69	0.35%
NEEPCO Stations	4.64	0.28%
Mizoram	4.29	0.26%
Dadra & Nagar Haveli	2.93	0.18%
Daman and Diu	2.56	0.16%
LANKO AMK	2.48	0.15%
Nagaland	2.13	0.13%
MAITHON POWER LTD	2.03	0.12%
SIMHAPURI	1.89	0.12%
STERLITE	1.79	0.11%
Tripura	1.60	0.10%
NSPCL	1.56	0.09%
ACBIL	0.51	0.03%
SHREE CEMENT	0.46	0.03%
LANKO KONDAPALLY	0.10	0.01%
RGPPL(Dabhol)	0.02	0.00%
LANKO KONDAPALLY	0.04	0.00%
Total	1645.65	100.00%
Volume of Export by top 5 States	834.26	50.69%

Table-14: VOLUME OF ELECTRICITY IMPORT THROUGH UI, AUGUST 2013		
Name of the State/UT/Other Regional Entity	Volume of Import (MUs)	% of Volume
Maharashtra	150.24	10.38%
Gujarat	133.68	9.23%
STERLITE	99.12	6.85%
West Bengal	98.68	6.82%
Uttar Pradesh	84.44	5.83%
Orissa	73.70	5.09%
DVC	57.71	3.99%
MP	54.06	3.73%
Chattisgarh	51.76	3.57%
Andhra Pradesh	48.91	3.38%
Assam	48.49	3.35%
NHPC Stations	43.96	3.04%
Tamilnadu	41.37	2.86%
CGPL(Coastal Gujarat Power Ltd)	41.04	2.83%
Dadra & Nagar Haveli	38.88	2.69%
Punjab	36.83	2.54%
J & K	36.16	2.50%
Goa	26.35	1.82%
Daman and Diu	22.96	1.59%
Rajasthan	22.47	1.55%
Bihar	22.08	1.52%
Himachal Pradesh	21.65	1.49%
Kerala	20.78	1.43%
KARCHAM WANGTOO	18.72	1.29%
Uttarakhand	16.25	1.12%
ACBIL	15.59	1.08%
Delhi	15.29	1.06%
Tripura	13.48	0.93%
Karnataka	11.74	0.81%
Meghalaya	7.35	0.51%
Arunachal Pradesh	6.68	0.46%
AD HYDRO	6.40	0.44%
NEEPCO Stations	6.22	0.43%
RGPPL(Dabhol)	5.35	0.37%
LANKO_AMK	5.29	0.37%
Nagaland	5.15	0.36%
UT Chandigarh	4.86	0.34%
JINDAL POWER	4.58	0.32%
MAITHON POWER LTD	4.51	0.31%
Pondicherry	4.16	0.29%
SHREE CEMENT	4.04	0.28%
SIMHAPURI	2.97	0.21%
Mizoram	2.09	0.14%
NSPCL	2.08	0.14%
BALCO	1.99	0.14%
NJPC	1.83	0.13%
Manipur	1.74	0.12%
Jharkhand	1.64	0.11%
Sikkim	1.29	0.09%
Haryana	1.27	0.09%
LANKO_KONDAPALLY	0.02	0.00%
Total	1447.89	100.00%
Volume of Import by top 5 States	566.16	39.10%

Table-15: TOTAL VOLUME OF NET SHORT-TERM TRANSACTIONS OF ELECTRICITY (REGIONAL ENTITY-WISE), AUGUST 2013		
Sr.No.	Name of the State/UT/Other Regional Entity	Total volume of net short-term transactions of
1	Punjab	1384.77
2	Andhra Pradesh	888.28
3	Uttar Pradesh	671.54
4	Gujarat	596.67
5	West Bengal	361.64
6	Tamilnadu	256.44
7	ESSAR STEEL	168.88
8	Dadra & Nagar Haveli	145.62
9	Maharashtra	114.13
10	Jharkhand	112.77
11	Assam	107.66
12	Delhi	34.54
13	Daman and Diu	33.92
14	CGPL(Coastal Gujarat Power Ltd)	31.00
15	Goa	25.09
16	Orissa	16.60
17	Bihar	12.77
18	Tripura	7.21
19	RGPPPL(Dabhol)	5.33
20	LANKO_AMK	2.80
21	BALCO	1.97
22	NSPCL	0.53
23	NHPC Stations	0.42
24	Meenakshi	0.22
25	Haryana	0.05
26	LANKO_KONDAPALLY	-0.08
27	NEEPCO Stations	-0.10
28	RANGANADI HEP	-1.77
29	Nagaland	-3.19
30	Pondicherry	-3.33
31	NJPC	-3.86
32	Mizoram	-4.42
33	KSK MAHANADI	-5.54
34	Arunachal Pradesh	-7.24
35	MAITHON POWER LTD	-8.97
36	Manipur	-9.25
37	EMCO	-10.95
38	ADHUNIK POWER LTD	-13.82
39	ACBIL	-14.76
40	Chattisgarh	-20.67
41	CHUZACHEN HEP	-37.41
42	Uttarakhand	-40.99
43	Kerala	-46.19
44	LANCO BUDHIL	-49.16
45	Sikkim	-55.29
46	Meghalaya	-56.06
47	SHREE CEMENT	-88.65
48	DVC	-126.67
49	AD HYDRO	-126.97
50	SIMHAPURI	-151.08
51	Rajasthan	-169.86
52	J & K	-259.77
53	STERLITE	-262.50
54	Karnataka	-264.01
55	JINDAL POWER	-384.42
56	UT Chandigarh	-451.64
57	Himachal Pradesh	-802.91
58	KARCHAM WANGTOO	-810.53
59	MP	-1030.35
* 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, AUGUST 2013			
	Details of Congestion	IEX	PXIL
A	Unconstrained Cleared Volume* (MUs)	2724.68	99.89
B	Actual Cleared Volume and hence scheduled (MUs)	2341.73	86.40
C	Volume of electricity that could not be cleared and hence not scheduled because of congestion (MUs) (A-B)	382.95	13.49
D	Volume of electricity that could not be cleared as % to Unconstrained Cleared Volume	14.05%	13.50%
E	Percentage of the time congestion occurred during the month (Number of hours congestion occurred/Total number of hours in the month)	99.13%	46.74%
F	Congestion occurrence (%) time block wise		
	0.00 - 6.00 hours	25.22%	27.82%
	6.00 - 12.00 hours	25.19%	24.59%
	12.00 - 18.00 hours	25.12%	24.44%
	18.00 - 24.00 hours	24.47%	23.15%
<i>* This power would have been scheduled had there been no congestion.</i>			
<i>Source: IEX & PXIL & NLDC</i>			

Table-17: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY IN INDIA (MUs), AUGUST 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 Drawl+Under Generation)	
	Through Traders & PXs**	Direct	IEX	PXI		
1-Aug-13	97.80	62.32	80.50	2.82	64.71	2523.75
2-Aug-13	95.77	61.79	81.48	3.69	61.93	2559.11
3-Aug-13	103.19	62.54	77.20	3.52	60.10	2575.94
4-Aug-13	97.41	62.54	69.88	3.46	66.65	2619.38
5-Aug-13	95.80	54.25	77.63	3.40	60.63	2646.34
6-Aug-13	100.53	58.32	74.33	3.57	77.48	2590.63
7-Aug-13	109.94	63.09	69.98	3.30	69.27	2588.51
8-Aug-13	103.83	58.30	76.22	3.69	69.78	2582.21
9-Aug-13	110.95	61.06	75.69	3.58	73.37	2526.00
10-Aug-13	95.66	62.03	75.05	2.67	57.66	2509.33
11-Aug-13	93.83	61.90	72.37	2.82	65.72	2500.46
12-Aug-13	98.61	62.57	63.95	2.31	79.25	2553.07
13-Aug-13	100.49	62.58	72.86	2.49	78.48	2577.11
14-Aug-13	101.26	62.79	76.49	2.35	71.13	2561.14
15-Aug-13	101.55	62.33	56.04	2.12	93.16	2381.50
16-Aug-13	93.14	60.82	66.65	3.13	66.89	2444.80
17-Aug-13	96.62	60.94	63.20	2.50	62.22	2451.85
18-Aug-13	82.23	60.83	71.20	2.47	65.29	2398.40
19-Aug-13	85.17	60.91	79.88	2.42	59.08	2427.72
20-Aug-13	85.29	59.17	74.04	2.33	59.43	2392.22
21-Aug-13	81.39	61.23	84.18	2.36	58.08	2429.46
22-Aug-13	79.52	60.97	87.91	1.99	55.80	2510.16
23-Aug-13	78.80	61.07	85.30	2.18	49.62	2520.00
24-Aug-13	82.63	56.86	82.24	2.39	48.71	2578.36
25-Aug-13	82.97	46.84	81.96	2.14	52.76	2598.76
26-Aug-13	79.74	56.77	85.11	2.30	50.46	2687.46
27-Aug-13	79.58	61.19	87.52	2.48	48.86	2703.00
28-Aug-13	85.06	59.38	76.84	3.39	53.42	2725.90
29-Aug-13	91.47	59.74	68.55	2.19	51.35	2757.34
30-Aug-13	92.38	61.02	76.68	2.42	50.75	2766.54
31-Aug-13	95.24	60.62	70.83	3.94	52.59	2794.26
Total	2877.86	1866.77	2341.73	86.40	1934.62	79480.71
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), AUGUST 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-Aug-13	0.99	8.50	2.18	1.45	3.40	2.11	0.00	7.09	1.35	0.00	4.22	1.06
2-Aug-13	0.99	8.50	2.12	0.99	2.50	1.83	0.00	5.91	1.34	0.00	5.34	1.25
3-Aug-13	1.25	10.00	1.96	1.00	2.50	1.86	0.00	4.78	1.42	0.00	5.06	1.17
4-Aug-13	1.00	8.50	1.95	1.00	2.50	1.83	0.00	5.06	1.68	0.00	4.22	1.32
5-Aug-13	1.00	11.00	2.11	1.00	2.50	1.84	0.00	3.93	1.39	0.00	7.37	2.18
6-Aug-13	1.24	8.50	2.19	1.00	2.50	1.94	0.00	2.51	0.54	0.00	5.63	1.88
7-Aug-13	0.75	12.00	2.08	1.00	2.50	1.91	0.00	3.36	1.05	0.00	7.37	1.94
8-Aug-13	1.22	8.50	2.09	1.00	2.60	1.90	0.00	8.49	1.54	0.00	8.49	2.35
9-Aug-13	1.22	10.00	2.21	1.00	2.50	2.03	0.00	3.08	0.50	0.00	7.65	2.07
10-Aug-13	1.22	12.00	2.06	1.19	2.50	2.22	0.00	3.93	1.26	0.00	5.91	2.41
11-Aug-13	1.15	8.50	2.10	1.25	2.50	2.07	0.00	3.08	0.69	0.00	5.06	1.45
12-Aug-13	1.00	12.00	1.79	1.38	2.50	2.25	0.00	3.36	0.82	0.00	5.06	1.93
13-Aug-13	1.05	8.50	1.98	1.20	2.51	2.02	0.00	3.08	0.92	0.00	5.34	1.91
14-Aug-13	1.44	8.50	2.11	1.09	2.52	1.54	0.00	3.36	1.02	0.00	5.91	1.69
15-Aug-13	0.88	8.00	1.69	0.95	1.70	1.22	0.00	3.93	0.48	0.00	2.79	0.90
16-Aug-13	0.98	8.50	1.68	1.00	2.50	1.55	0.00	4.22	0.86	0.00	4.22	0.89
17-Aug-13	0.90	3.73	1.51	1.00	2.50	1.58	0.00	4.78	1.11	0.00	7.65	2.13
18-Aug-13	0.89	4.40	1.40	1.05	2.50	1.61	0.00	4.22	0.91	0.00	5.06	1.44
19-Aug-13	0.88	10.00	1.65	1.00	2.50	1.65	0.00	3.93	1.07	0.00	5.63	1.73
20-Aug-13	0.80	4.60	1.58	0.95	2.50	1.35	0.00	3.36	1.01	0.00	8.21	1.68
21-Aug-13	1.00	6.00	1.77	0.95	2.75	1.26	0.00	7.37	1.49	0.00	3.65	1.18
22-Aug-13	1.38	6.01	1.91	1.45	2.75	1.80	0.00	5.91	1.84	0.00	5.06	1.51
23-Aug-13	1.43	6.00	1.98	0.95	2.50	1.51	0.00	10.80	2.47	0.00	5.06	1.20
24-Aug-13	1.49	4.97	2.28	1.35	2.50	1.94	0.00	8.21	1.80	0.00	4.22	0.96
25-Aug-13	1.44	5.00	2.04	2.00	2.50	2.29	0.00	4.50	1.58	0.00	7.65	1.85
26-Aug-13	2.00	4.10	2.47	1.50	2.50	2.07	0.00	4.78	1.68	0.17	5.91	2.53
27-Aug-13	2.00	5.10	2.49	2.00	2.70	2.32	0.00	5.63	1.68	0.50	8.21	4.14
28-Aug-13	1.59	6.00	2.59	1.80	3.00	2.34	0.00	7.09	1.68	0.17	7.09	3.53
29-Aug-13	1.25	6.00	2.49	1.75	3.20	2.33	0.00	8.49	2.27	0.00	8.49	3.60
30-Aug-13	1.20	6.00	2.68	1.49	3.00	2.13	0.00	4.22	1.56	0.83	10.80	3.80
31-Aug-13	1.25	6.01	2.58	1.29	3.70	2.03	0.00	5.06	1.32	0.00	7.93	3.65
	0.75#	12.00#	2.07	0.95#	3.70#	1.89	0.00#	10.80#	1.30	0.00#	10.80#	1.98
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), AUGUST 2013										
Name of the State/UT/Other Regional Entity	Through Bilateral			Through Power Exchange			Through UI with Regional Grid			Total Net***
	Sale	Pur- chase	Net**	Sale	Pur- chase	Net**	Export (Under Drawl)	Import (Over Drawl)	Net**	
Punjab	0.00	1277.64	1277.64	1.23	140.17	138.93	68.63	36.83	-31.80	1384.77
Haryana	0.92	318.02	317.11	88.50	158.92	70.42	388.74	1.27	-387.47	0.05
Rajasthan	347.38	2.52	-344.86	37.02	335.71	298.70	146.17	22.47	-123.69	-169.86
Delhi	37.50	468.63	431.13	310.11	2.04	-308.07	103.81	15.29	-88.52	34.54
Uttar Pradesh	0.00	550.62	550.62	0.00	163.40	163.40	126.91	84.44	-42.47	671.54
Uttarakhand	31.88	0.02	-31.86	49.58	62.64	13.06	38.44	16.25	-22.19	-40.99
Himachal Pradesh	604.89	8.75	-596.14	208.91	10.91	-198.00	30.41	21.65	-8.76	-802.91
J & K	220.58	0.50	-220.08	50.82	15.35	-35.47	40.38	36.16	-4.22	-259.77
UT Chandigarh	449.56	5.09	-444.47	5.68	0.11	-5.57	6.45	4.86	-1.59	-451.64
MP	856.82	0.60	-856.22	229.33	64.61	-164.72	63.47	54.06	-9.41	-1030.35
Maharashtra	182.99	113.57	-69.42	61.89	150.46	88.58	55.27	150.24	94.98	114.13
Gujarat	135.16	161.11	25.96	177.43	652.08	474.65	37.62	133.68	96.07	596.67
Chattisgarh	36.85	8.79	-28.06	36.41	27.85	-8.56	35.80	51.76	15.95	-20.67
Daman and Diu	0.00	0.00	0.00	0.00	13.52	13.52	2.56	22.96	20.40	33.92
Dadra & Nagar Haveli	0.00	109.67	109.67	0.00	0.00	0.00	2.93	38.88	35.95	145.62
Andhra Pradesh	0.00	632.60	632.60	45.39	279.75	234.36	27.59	48.91	21.32	888.28
Karnataka	270.20	88.07	-182.13	72.08	25.97	-46.11	47.52	11.74	-35.78	-264.01
Kerala	0.00	19.49	19.49	88.98	22.53	-66.45	20.00	20.78	0.78	-46.19
Tamilnadu	0.00	171.48	171.48	0.00	80.50	80.50	36.91	41.37	4.46	256.44
Pondicherry	0.00	0.00	0.00	0.00	0.00	0.00	7.48	4.16	-3.33	-3.33
West Bengal	155.23	452.59	297.36	19.32	15.25	-4.06	30.34	98.68	68.35	361.64
Orissa	28.14	0.00	-28.14	12.32	0.20	-12.12	16.84	73.70	56.86	16.60
Bihar	0.00	39.06	39.06	0.00	2.40	2.40	50.76	22.08	-28.68	12.77
Jharkhand	4.91	180.38	175.46	0.00	0.00	0.00	64.34	1.64	-62.70	112.77
Sikkim	31.25	7.41	-23.83	23.37	0.00	-23.37	9.38	1.29	-8.09	-55.29
DVC	148.34	0.00	-148.34	17.76	0.00	-17.76	18.28	57.71	39.42	-126.67
Arunachal Pradesh	0.00	0.00	0.00	7.31	0.00	-7.31	6.61	6.68	0.07	-7.24
Assam	0.00	65.00	65.00	10.01	25.34	15.33	21.16	48.49	27.33	107.66
Manipur	0.00	0.00	0.00	0.00	0.00	0.00	10.99	1.74	-9.25	-9.25
Meghalaya	39.92	0.00	-39.92	21.41	5.31	-16.09	7.39	7.35	-0.05	-56.06
Mizoram	0.00	0.00	0.00	2.22	0.00	-2.22	4.29	2.09	-2.20	-4.42
Nagaland	0.00	0.00	0.00	6.20	0.00	-6.20	2.13	5.15	3.02	-3.19
Tripura	8.19	1.86	-6.33	0.00	1.66	1.66	1.60	13.48	11.88	7.21
Goa	0.00	4.16	4.16	0.00	2.60	2.60	8.02	26.35	18.33	25.09
NHPC Stations	0.00	0.00	0.00	0.00	0.00	0.00	43.54	43.96	0.42	0.42
NJPC	0.00	0.00	0.00	0.00	0.00	0.00	5.69	1.83	-3.86	-3.86
AD HYDRO	70.15	0.00	-70.15	53.16	0.00	-53.16	10.06	6.40	-3.65	-126.97
KARCHAM WANGTOO	349.73	0.00	-349.73	471.26	0.00	-471.26	8.26	18.72	10.46	-810.53
SHREE CEMENT	91.69	0.00	-91.69	0.53	0.00	-0.53	0.46	4.04	3.58	-88.65
LANCO BUDHIL	0.00	0.00	0.00	49.16	0.00	-49.16	0.00	0.00	0.00	-49.16
JINDAL POWER	257.15	0.00	-257.15	118.50	0.00	-118.50	13.34	4.58	-8.76	-384.42
LANKO_AMK	0.00	0.00	0.00	0.00	0.00	0.00	2.48	5.29	2.80	2.80
NSPCL	0.00	0.00	0.00	0.00	0.00	0.00	1.56	2.08	0.53	0.53
ACBIL	19.04	0.00	-19.04	10.80	0.00	-10.80	0.51	15.59	15.08	-14.76
BALCO	0.00	0.00	0.00	0.02	0.00	-0.02	0.00	1.99	1.99	1.97
RGPPL(Dabhol)	0.00	0.00	0.00	0.00	0.00	0.00	0.02	5.35	5.33	5.33
CGPL	0.00	0.00	0.00	0.00	0.00	0.00	10.04	41.04	31.00	31.00
EMCO	0.00	0.00	0.00	10.95	0.00	-10.95	0.00	0.00	0.00	-10.95
ESSAR STEEL	0.00	0.00	0.00	0.00	168.88	168.88	0.00	0.00	0.00	168.88
KSK MAHANADI	0.00	0.00	0.00	5.54	0.00	-5.54	0.00	0.00	0.00	-5.54

LANKO_KONDAPALLY	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.02	-0.08	-0.08
SIMHAPURI	122.20	0.00	-122.20	29.96	0.00	-29.96	1.89	2.97	1.08	-151.08
Meenakshi	0.00	0.99	0.99	0.77	0.00	-0.77	0.00	0.00	0.00	0.22
STERLITE	331.36	0.00	-331.36	28.46	0.00	-28.46	1.79	99.12	97.33	-262.50
MAITHON POWER LTD	0.36	0.00	-0.36	11.10	0.00	-11.10	2.03	4.51	2.48	-8.97
ADHUNIK POWER LTD	0.00	0.00	0.00	13.82	0.00	-13.82	0.00	0.00	0.00	-13.82
CHUZACHEN HEP	0.00	0.00	0.00	37.41	0.00	-37.41	0.00	0.00	0.00	-37.41
NEEPCO Stations	0.00	0.00	0.00	1.68	0.00	-1.68	4.64	6.22	1.58	-0.10
RANGANADI HEP	0	0	0	1.77	0.00	-1.77	0	0	0	-1.77
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, AUGUST 2013					
Sr.No.	Details of REC Transactions	IEX		PXIL	
		Solar	Non-Solar	Solar	Non Solar
A	Volume of Buy Bid	1754	31101	605	9788
B	Volume of Sell Bid	23338	1872449	6761	1102245
C	Ratio of Buy Bid to Sell Bid Volume	0.08	0.02	0.09	0.01
D	Market Clearing Volume (MWh)	1754	31101	605	9788
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>

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