

# Monthly Report on Short-term Transactions of Electricity in India

February, 2014



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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 Aluminum 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
DOYANG HEP	Doyang Hydro electric power project
DVC	Damodar Valley Corporation
EMCO	EMCO Energy Limited
ESSAR STEEL	Essar Steel Ltd
ESSAR POWER	Essar Power Ltd
HHI	Herfindahl-Hirschman Index
IEX	Indian Energy Exchange Limited
J&K	Jammu & Kashmir
KARCHAM WANGTOO	Jaypee Karcham Hydro Corporation Limited
LANKO_AMK	Lanco Amarkantak Power Private Limited
LANCO BUDHIL	Lanco Budhil Hydro Power Project
MALANA	Malana Hydroelectric Plant
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
ONGC PALATANA	Oil and Natural Gas Corporation, Palatana
PX	Power Exchange
PXIL	Power Exchange India Limited
RANGANADI HEP	Ranganadi Hydro Electric Project
RANGIT HEP	Rangit Hydroelectric Power 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
URI-2	Uri Hydro Electric Project
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 February, 2014 is as under:

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

During the month of February 2014, total electricity generation excluding generation from renewable and captive power plants in India was 75945.49 MUs (Table-1).

Of the total electricity generation, 7689.69 MUs (10.13%) were transacted through short-term, comprising of 4054.83 MUs (5.34%) through Bilateral (through traders and term-ahead contracts on Power Exchanges and directly between distribution companies), followed by 2236.98 MUs (2.95%) through day ahead collective transactions on Power Exchanges (IEX and PXIL) and 1397.88 MUs (1.84%) through UI (Table-1 & Figure-2).

Of the total short-term transactions, Bilateral constitute 52.73% (41.34% through traders and term-ahead contracts on Power Exchanges and 11.39% directly between distribution companies) followed by 29.09% through day ahead collective transactions on Power Exchanges and 18.18% 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 41 trading licensees as on 28.02.2014, of which only 22 have engaged in trading during February 2014. Top 5 trading licensees had a share of 70.58% 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 0.1676 for the month of February 2014, 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 2171.72 MUs and 65.26 MUs respectively. The volume of total Buy bids and Sale bids was 3725.21 MUs and 3728.15 MUs respectively in IEX and 104.14 MUs and 188.98 MUs respectively in PXIL. The gap between the volume of buy bids and sale bids placed through power exchanges shows that there was almost equal demand in IEX (0.999 times) and less demand in PXIL (0.55 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 29.75 MUs and 33.35 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 ₹4.43/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 ₹4.50/kWh, ₹3.61/kWh and ₹3.53/kWh respectively. Minimum and Maximum sale prices were ₹2.89/kWh and ₹6.97/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 ₹0.05/kWh, ₹12.01/kWh and ₹3.17/kWh respectively in IEX and ₹1.00/kWh, ₹9.00/kWh and ₹2.94/kWh respectively in PXIL (Table-5).

The price of electricity transacted through IEX and PXIL in the term-ahead market was ₹3.82/kWh and ₹3.84/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 ₹1.55/kWh in the NEW Grid and ₹1.59/kWh in the SR Grid. Minimum and Maximum UI prices were ₹0.00/kWh and ₹8.24/kWh respectively in the New Grid, and ₹0.00/kWh and ₹8.24/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 Entity<sup>1</sup>-Wise)**

Of the total bilateral transactions, top 5 regional entities sold 51.15% of the volume, and these were Delhi, Karnataka, Haryana, West Bengal and Kerala. Top 5 regional entities purchased 51.11% of the volume, and these were Rajasthan, Andhra Pradesh, Jammu & Kashmir, Uttar Pradesh and West Bengal (Table-9, 10 & 19).

Of the total Power Exchange transactions, top 5 regional entities sold 60.51% of the volume, and these were Gujarat, Madhya Pradesh, Delhi, Haryana and Karnataka. Top 5 regional entities purchased 73.07% of the volume, and these were Gujarat, Rajasthan, Haryana, Andhra Pradesh and Essar Steel (Table-11, 12 & 19).

Of the total UI transactions, top 5 regional entities underdrew 46.05% of the volume, and these were Uttar Pradesh, Maharashtra, Rajasthan, Gujarat and Delhi. Top 5 regional entities overdrew 36.80% of the volume, and these were Andhra Pradesh, West Bengal, Haryana, Kerala and Punjab (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 Delhi, Karnataka, Jindal Power Ltd, Sterlite Energy Ltd and Simhapuri Energy Private Ltd. Top 5 electricity purchasing regional entities were Rajasthan, Andhra Pradesh, Uttarakhand, Jammu & Kashmir and Tamilnadu.

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<sup>1</sup> 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: Congestion<sup>2</sup> 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”<sup>3</sup>.

In the month of February 2014, 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 21.11% and 15.49% of the unconstrained cleared volume in IEX and PXIL, respectively. In terms of time, congestion occurred was 100.00% in IEX and 73.85% 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.

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

<sup>3</sup> “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 February 2014 are shown in Table-20. The market clearing volume of Solar RECs transacted on IEX and PXIL were 7816 and 492 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 176107 and 202718 respectively and the market clearing price of these RECs was ₹1500/MWh on both the power exchanges.

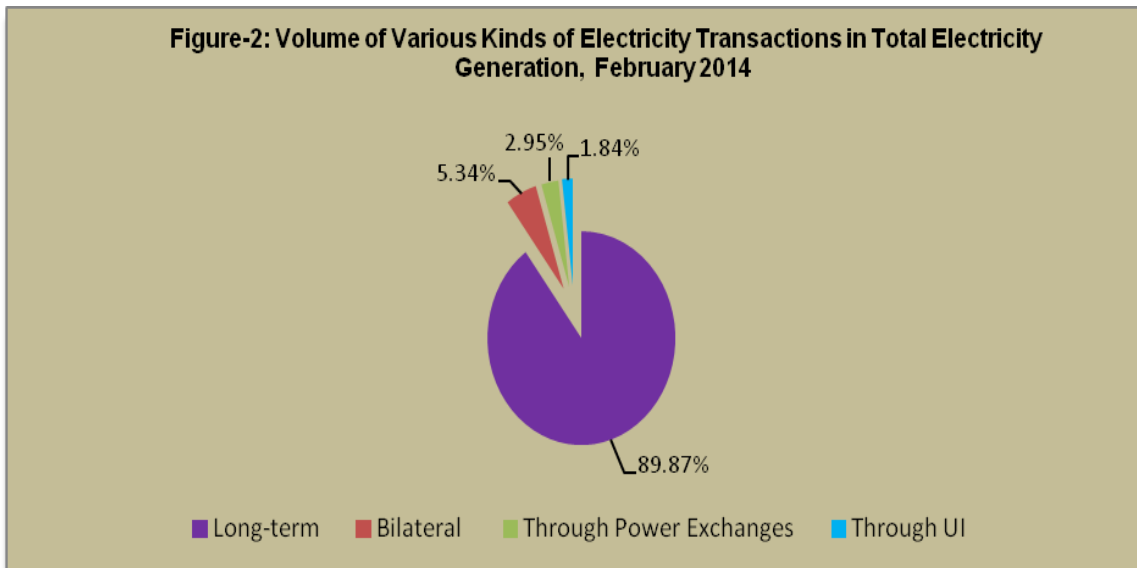
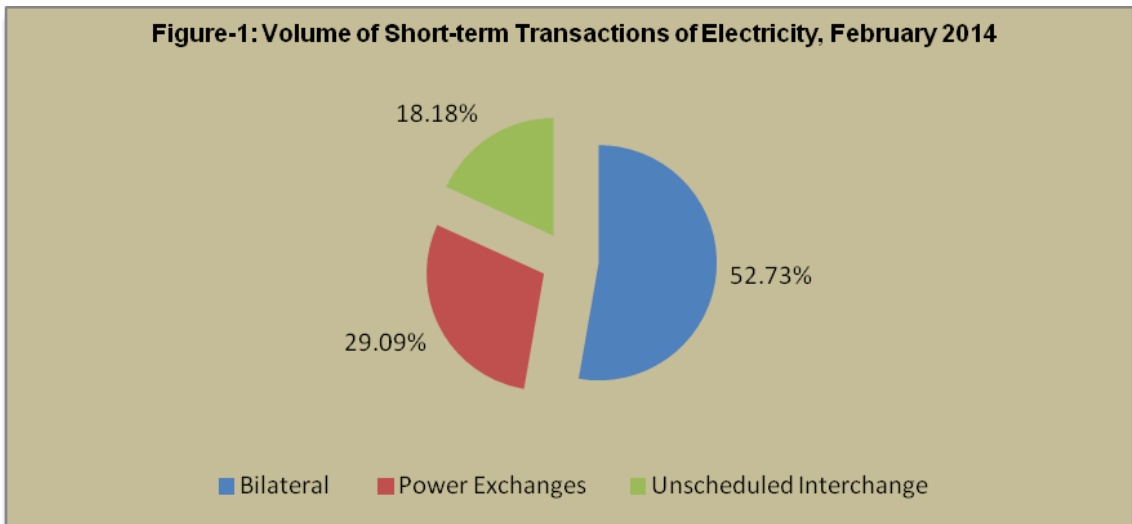
The gap between the volume of buy and sell bids of RECs placed through power exchanges show that there was less demand for Solar RECs and Non-Solar RECs. For Solar RECs, the ratio of buy and sell bids was 0.07 and 0.03 in IEX and PXIL respectively. For Non-Solar RECs, the ratio of buy and sell bids was 0.09 and 0.08 in IEX and PXIL respectively.

## VI: Inferences:

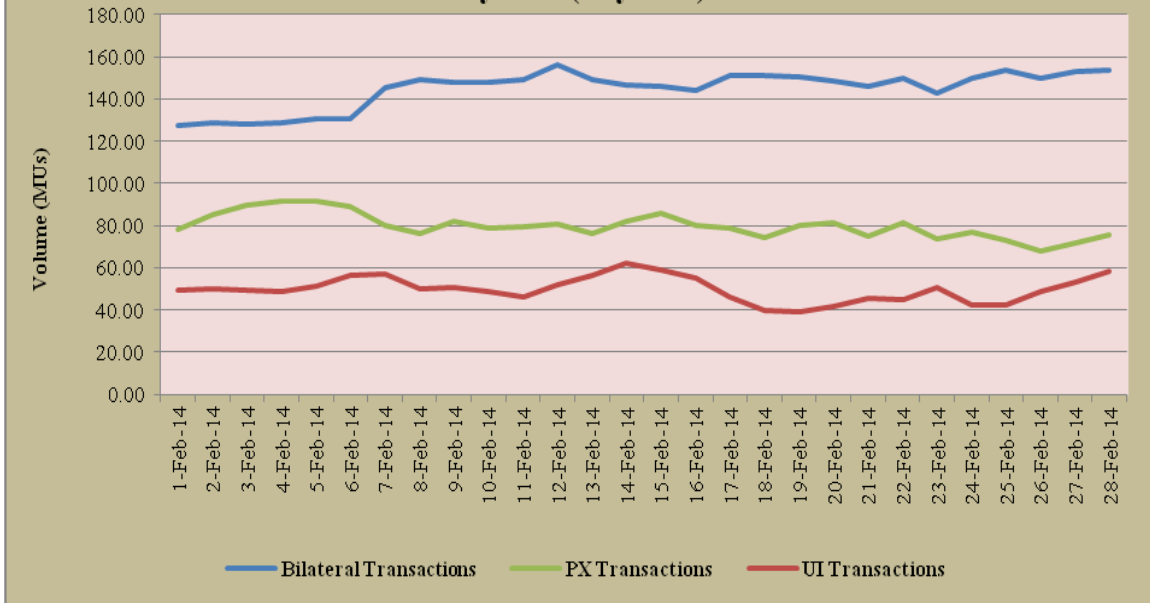
- The percentage of short-term transactions of electricity to total electricity generation was 10.13%.
- Of the total short-term transactions of electricity, 52.73% was transacted through bilateral (through traders and term ahead contracts on power exchanges and directly by distribution companies), followed by 29.09% through Power Exchanges and 18.18% through UI.
- Top 5 trading licensees had a share of 70.58% in the total volume traded by all the trading licensees.
- The Herfindahl Hirschman Index computed for volume of electricity traded by trading licensees was 0.1676, indicating non-concentration of market power.
- The price of electricity transacted through trading licensees (₹4.43/kWh) was higher when compared with the price of electricity transacted through IEX (₹3.17/kWh) and PXIL (₹2.94/kWh) respectively.
- The price of electricity transacted through UI was ₹1.55/kWh in the NEW Grid and ₹1.59/kWh in the SR Grid.
- The gap between the volume of buy bids and sale bids placed through power exchanges indicates that there was almost equal demand in IEX (1: 0.999) and less demand in PXIL (1: 0.55) when compared with the supply offered through these exchanges.
- Top 5 electricity selling regional entities were Delhi, Karnataka, Jindal Power, Sterlite Energy Ltd and Simhapuri Energy Private Ltd. Top 5 electricity purchasing regional entities were Rajasthan, Andhra Pradesh, Uttarakhand, Jammu & Kashmir and Tamilnadu.
- The volume of electricity that could not be cleared in the power exchanges due to congestion was 21.11% and 15.49% of the unconstrained cleared volume in IEX and PXIL, respectively. In terms of time, congestion occurred was 100.00% in IEX and 73.85% in PXIL.
- The market clearing volume of Solar RECs transacted on IEX and PXIL were 7816 and 492 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 176107 and 202718 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), FEBRUARY 2014				
Sr.No	Short-term transactions	Volume (MUs)	% to Volume of short-term transactions	% to Total Generation
1	Bilateral	4054.83	52.73%	5.34%
	(i) Through Traders and PXs	3178.80	41.34%	4.19%
	(ii) Direct	876.03	11.39%	1.15%
2	Through Power Exchanges	2236.98	29.09%	2.95%
	(i) IEX	2171.72	28.24%	2.86%
	(ii) PXIL	65.26	0.85%	0.09%
3	Through UI	1397.88	18.18%	1.84%
	<b>Total</b>	<b>7689.69</b>	<b>100.00%</b>	10.13%
	<b>Total Generation</b>	<b>75945.49</b>	–	–

Source: NLDC



**Figure-3: Volume of Short-term Transactions of Electricity, February 2014 (Day-wise)**



<b>Table-2: PERCENTAGE SHARE OF ELECTRICITY TRANSACTED BY TRADING LICENSEES, FEBRUARY 2014</b>			
<b>Sr.No</b>	<b>Name of the Trading Licensee</b>	<b>% Share in total Volume transacted by Trading Licensees</b>	<b>Herfindahl-Hirschman Index</b>
1	PTC India Ltd.	34.76%	0.1208
2	JSW Power Trading Company Ltd	12.56%	0.0158
3	Mittal Processors (P) Ltd.	9.25%	0.0086
4	Tata Power Trading Company (P) Ltd.	7.21%	0.0052
5	Reliance Energy Trading (P) Ltd	6.80%	0.0046
6	NTPC Vidyut Vyapar Nigam Ltd.	6.26%	0.0039
7	Shree Cement Ltd.	6.12%	0.0037
8	Adani Enterprises Ltd.	5.20%	0.0027
9	GMR Energy Trading Ltd.	2.92%	0.0009
10	Knowledge Infrastructure Systems (P) Ltd	2.70%	0.0007
11	Manikaran Power Ltd.	2.08%	0.0004
12	Instinct Infra & Power Ltd.	1.14%	0.0001
13	National Energy Trading & Services Ltd.	0.84%	0.0001
14	RPG Power Trading Company Ltd.	0.71%	0.0001
15	HMM Infra Ltd.	0.35%	0.0000
16	Jaiprakash Associates Ltd.	0.30%	0.0000
17	Arunachal Pradesh Power Corporation (P) ltd	0.29%	0.0000
18	Pune Power Development (P) Ltd.	0.24%	0.0000
19	Indrajit Power Technology (P) Ltd.	0.14%	0.0000
20	Customized Energy Solutions India (P) Ltd.	0.12%	0.0000
21	Essar Electric Power Development Corp. Ltd.	0.03%	0.0000
22	Ambitious Power Trading Company Ltd.	0.01%	0.0000
<b>TOTAL</b>		<b>100.00%</b>	<b>0.1676</b>
<b>Top 5 trading licensees</b>		<b>70.58%</b>	
<i>Note 1: Volume of electricity transacted by the trading licensees includes bilateral transactions (inter-state &amp; 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>			

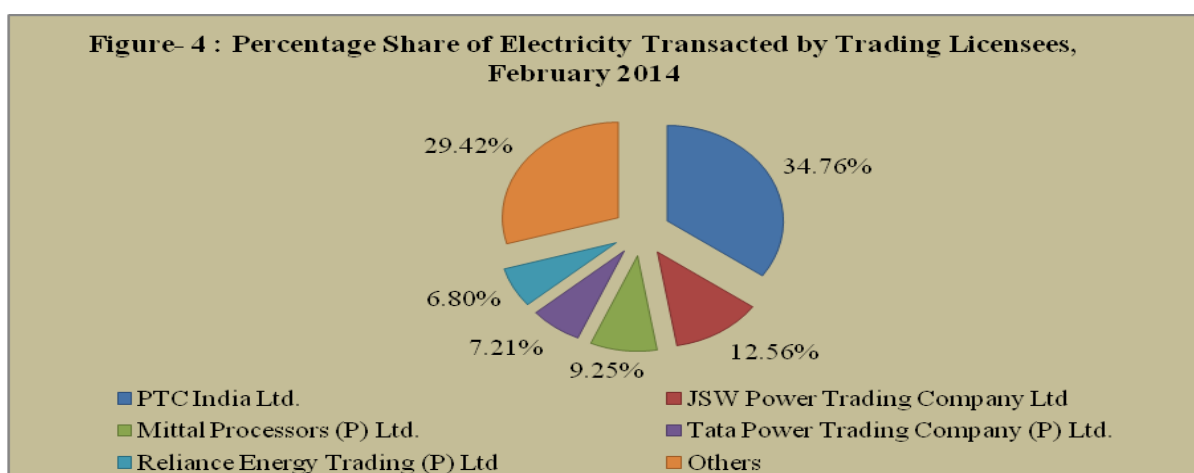


Table-3: PRICE OF ELECTRICITY TRANSACTED THROUGH TRADERS, FEBRUARY 2014		
Sr.No		Sale Price of Traders (₹/kWh)
1	Minimum	2.89
2	Maximum	6.97
3	Weighted Average	4.43

Source: Information submitted by trading licensees

Table-4: PRICE OF ELECTRICITY TRANSACTED THROUGH TRADERS (TIME-WISE), FEBRUARY 2014		
Sr.No	Period of Trade	Sale Price of Traders (₹/kWh)
1	RTC	4.50
2	PEAK	3.61
3	OFF PEAK	3.53

Source: Information submitted by trading licensees

Table-5: PRICE OF ELECTRICITY TRANSACTED THROUGH POWER EXCHANGES, FEBRUARY 2014			
Sr.No	ACP	Price in IEX (₹/kWh)	Price in PXIL (₹/kWh)
1	Minimum	0.05	1.00
2	Maximum	12.01	9.00
3	Weighted Average	3.17	2.94

Source: Information submitted by IEX and PXIL

Table-6: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF IEX, FEBRUARY 2014			
Sr.No	Term ahead contracts	Actual Scheduled Volume (MUs)	Weighted Average Price (₹/kWh)
1	Intra-Day Contracts	5.54	3.47
2	Day Ahead Contingency Contracts	24.21	3.90
	<b>Total</b>	<b>29.75</b>	<b>3.82</b>

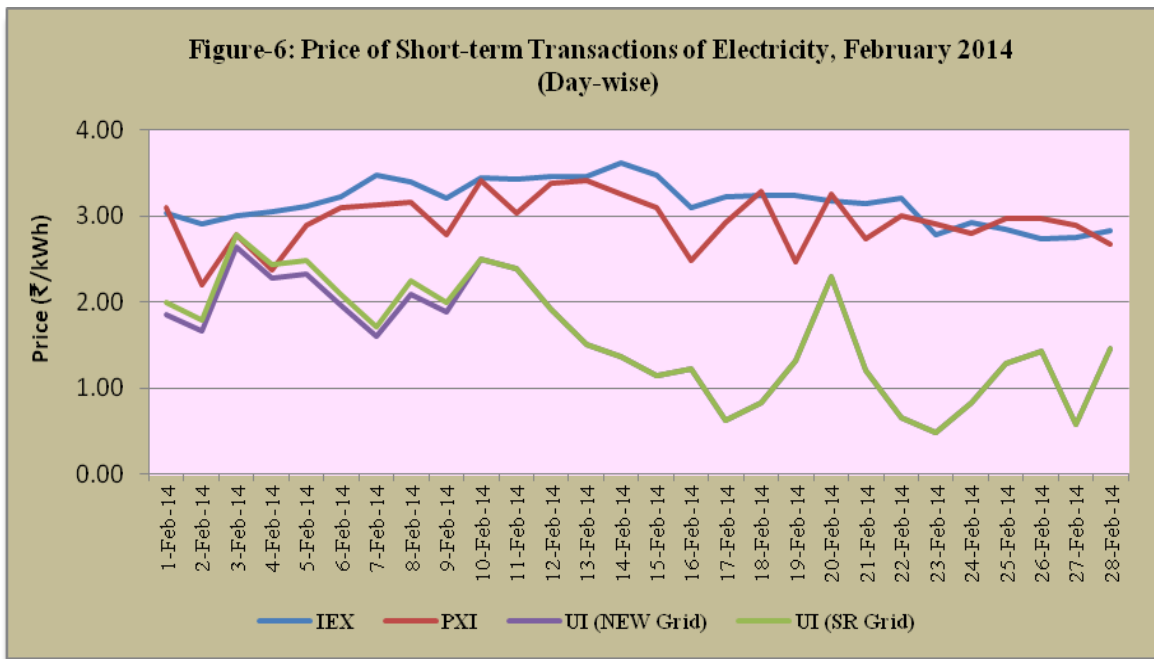
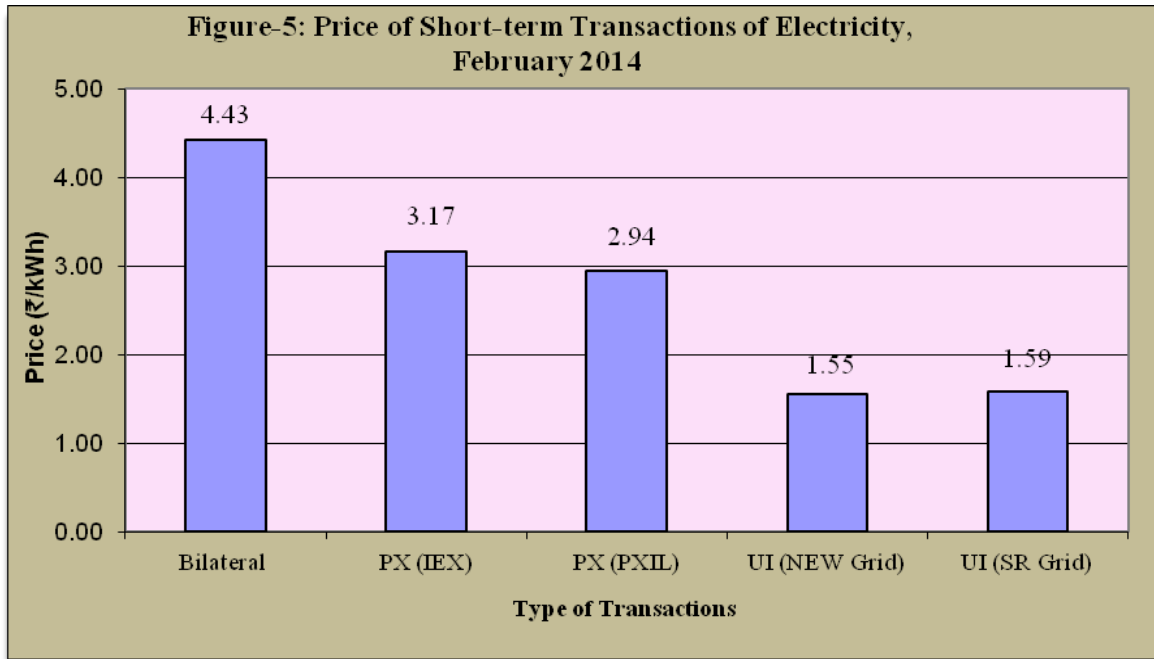
Source: IEX

Table-7: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF PXIL, FEBRUARY 2014			
Sr.No	Term ahead contracts	Actual Scheduled Volume (MUs)	Weighted Average Price (₹/kWh)
1	Intra-Day Contracts	23.81	3.94
2	Daily Contracts	9.54	3.60
	<b>Total</b>	<b>33.35</b>	<b>3.84</b>

Source: PXIL

Table-8: PRICE OF ELECTRICITY TRANSACTED THROUGH UI, FEBRUARY 2014			
Sr.No		Price in NEW Grid (₹/kWh)	Price in SR Grid (₹/kWh)
1	Minimum	0	0
2	Maximum	8.24	8.24
3	Average	1.55	1.59

Source: NLDC



<b>Table-9: VOLUME OF ELECTRICITY SALE THROUGH BILATERAL, FEBRUARY 2014</b>		
<b>Name of the State/UT/Other Regional Entity</b>	<b>Volume of Sale (MUs)</b>	<b>% of Volume</b>
Delhi	520.21	14.19%
Karnataka	427.79	11.67%
Haryana	384.35	10.48%
West Bengal	276.00	7.53%
Kerala	267.59	7.30%
Gujarat	264.61	7.22%
JINDAL POWER	232.92	6.35%
Punjab	228.35	6.23%
SIMHAPURI	180.61	4.93%
DVC	146.04	3.98%
Uttar Pradesh	139.66	3.81%
STERLITE	136.69	3.73%
Rajasthan	107.05	2.92%
SHREE CEMENT	85.37	2.33%
KARCHAM WANGTOO	71.68	1.95%
MP	45.27	1.23%
Orissa	36.57	1.00%
Chattisgarh	31.80	0.87%
ACBIL	21.61	0.59%
Tripura	14.57	0.40%
Andhra Pradesh	14.47	0.39%
J & K	12.76	0.35%
MAITHON POWER LTD	8.05	0.22%
Jharkhand	6.51	0.18%
Assam	6.48	0.18%
DCPP	0.22	0.01%
<b>Total</b>	<b>3667.21</b>	<b>100.00%</b>
<b>Volume of sale by top 5 States</b>	<b>1875.94</b>	<b>51.15%</b>



<b>Table-10: VOLUME OF ELECTRICITY PURCHASE THROUGH BILATERAL, FEBRUARY 2014</b>		
<b>Name of the State/UT/Other Regional Entity</b>	<b>Volume of Purchase (MUs)</b>	<b>% of Volume</b>
Rajasthan	550.04	13.79%
Andhra Pradesh	536.44	13.45%
J & K	324.86	8.14%
Uttar Pradesh	321.60	8.06%
West Bengal	305.84	7.67%
Himachal Pradesh	280.19	7.02%
Tamilnadu	276.86	6.94%
Kerala	196.04	4.91%
Uttarakhand	193.56	4.85%
Haryana	171.09	4.29%
Jharkhand	165.72	4.15%
MP	139.15	3.49%
Bihar	111.70	2.80%
Maharashtra	83.75	2.10%
DVC	78.06	1.96%
Dadra & Nagar Haveli	72.58	1.82%
Gujarat	63.74	1.60%
Assam	38.91	0.98%
Meghalaya	38.73	0.97%
Delhi	23.07	0.58%
Nagaland	7.87	0.20%
Chattisgarh	5.86	0.15%
Punjab	2.16	0.05%
Meenakshi	0.87	0.02%
<b>Total</b>	<b>3988.68</b>	<b>100.00%</b>
<b>Volume of Purchase by top 5 States</b>	<b>2038.78</b>	<b>51.11%</b>

<b>Table-11: VOLUME OF ELECTRICITY SALE THROUGH POWER EXCHANGES, FEBRUARY 2014</b>		
<b>Name of the State/UT/Other Regional Entity</b>	<b>Volume of Sale (MUs)</b>	<b>% of Volume</b>
Gujarat	639.73	28.60%
MP	258.50	11.56%
Delhi	192.39	8.60%
Haryana	153.17	6.85%
Karnataka	109.70	4.90%
Orissa	92.52	4.14%
Chattisgarh	91.76	4.10%
JINDAL POWER	90.78	4.06%
STERLITE	74.56	3.33%
Himachal Pradesh	61.06	2.73%
EMCO	46.73	2.09%
SHREE CEMENT	44.11	1.97%
MAITHON POWER LTD	39.57	1.77%
DCPP	33.87	1.51%
West Bengal	32.25	1.44%
Tripura	30.13	1.35%
Punjab	28.27	1.26%
DVC	27.60	1.23%
NEEPCO Stations	24.09	1.08%
ONGC PALATANA	22.86	1.02%
Maharashtra	22.54	1.01%
KARCHAM WANGTOO	19.64	0.88%
Rajasthan	14.60	0.65%
ADHUNIK POWER LTD	13.16	0.59%
Andhra Pradesh	11.03	0.49%
BALCO	10.67	0.48%
AD HYDRO	9.38	0.42%
CHUZACHEN HEP	6.67	0.30%
NJPC	4.48	0.20%
Uttarakhand	4.25	0.19%
J & K	4.10	0.18%
LANCO BUDHIL	4.02	0.18%
RANGANADI HEP	3.57	0.16%
SIMHAPURI	3.51	0.16%
Meghalaya	2.46	0.11%
NHPC Stations	2.34	0.10%
Sikkim	2.32	0.10%
Mizoram	1.00	0.04%
ACBIL	0.78	0.03%
UT Chandigarh	0.62	0.03%
URI-2	0.61	0.03%
DOYANG HEP	0.53	0.02%
Assam	0.31	0.01%
Meenakshi	0.28	0.01%
ESSAR POWER	0.17	0.01%
MALANA	0.16	0.01%
RANGIT HEP	0.15	0.01%
<b>Total</b>	<b>2236.98</b>	<b>100.00%</b>
<b>Volume of sale by top 5 States</b>	<b>1353.49</b>	<b>60.51%</b>

<b>Table-12: VOLUME OF ELECTRICITY PURCHASE THROUGH POWER EXCHANGES, FEBRUARY 2014</b>		
<b>Name of the State/UT/Other Regional Entity</b>	<b>Volume of Purchase (MUs)</b>	<b>% of Volume</b>
Gujarat	727.94	32.54%
Rajasthan	451.87	20.20%
Haryana	160.70	7.18%
Andhra Pradesh	148.79	6.65%
ESSAR STEEL	145.28	6.49%
Uttarakhand	145.08	6.49%
Maharashtra	137.45	6.14%
Punjab	70.98	3.17%
Bihar	46.93	2.10%
J & K	29.36	1.31%
Daman and Diu	28.43	1.27%
MP	26.02	1.16%
Orissa	23.40	1.05%
West Bengal	21.93	0.98%
Assam	18.27	0.82%
Chattisgarh	15.80	0.71%
Meghalaya	9.27	0.41%
Arunachal Pradesh	8.79	0.39%
Himachal Pradesh	7.74	0.35%
Karnataka	4.79	0.21%
Uttar Pradesh	4.23	0.19%
Delhi	3.06	0.14%
Tamilnadu	0.59	0.03%
Tripura	0.28	0.01%
<b>Total</b>	<b>2236.98</b>	<b>100.00%</b>
<b>Volume of purchase by top 5 States</b>	<b>1634.58</b>	<b>73.07%</b>

<b>Table-13: VOLUME OF ELECTRICITY EXPORT THROUGH UI, FEBRUARY 2014</b>		
<b>Name of the State/UT/Other Regional Entity</b>	<b>Volume of Export (MUs)</b>	<b>% of Volume</b>
Uttar Pradesh	156.42	14.55%
Maharashtra	102.47	9.53%
Rajasthan	96.83	9.00%
Gujarat	76.20	7.09%
Delhi	63.21	5.88%
JINDAL POWER	55.25	5.14%
Chattisgarh	49.54	4.61%
MP	46.69	4.34%
Haryana	44.73	4.16%
NHPC Stations	44.15	4.11%
Punjab	35.78	3.33%
DVC	35.41	3.29%
Tamilnadu	34.11	3.17%
Jharkhand	32.64	3.04%
J & K	24.20	2.25%
Orissa	21.17	1.97%
Himachal Pradesh	13.33	1.24%
Bihar	12.97	1.21%
Goa	12.80	1.19%
Karnataka	12.18	1.13%
Uttarakhand	8.74	0.81%
Pondicherry	8.54	0.79%
Tripura	8.16	0.76%
Assam	7.52	0.70%
West Bengal	6.86	0.64%
CGPL	6.73	0.63%
NJPC	6.70	0.62%
STERLITE	6.48	0.60%
MAITHON POWER LTD	5.09	0.47%
NSPCL	5.04	0.47%
ACBIL	4.07	0.38%
KARCHAM WANGTOO	3.62	0.34%
Manipur	3.51	0.33%
Sikkim	3.41	0.32%
NEEPCO Stations	3.20	0.30%
Andhra Pradesh	2.79	0.26%
UT Chandigarh	2.68	0.25%
LANKO_AMK	2.22	0.21%
BALCO	1.37	0.13%
Nagaland	1.34	0.13%
DCPP	1.24	0.12%
Dadra & Nagar Haveli	1.19	0.11%
SHREE CEMENT	1.05	0.10%
Meghalaya	0.99	0.09%
Daman and Diu	0.66	0.06%
SIMHAPURI	0.49	0.05%
Mizoram	0.45	0.04%
Kerala	0.44	0.04%
AD HYDRO	0.42	0.04%
Arunachal Pradesh	0.21	0.02%
<b>Total</b>	<b>1075.31</b>	<b>100.00%</b>
<b>Volume of Export by top 5 States</b>	<b>495.13</b>	<b>46.05%</b>

<b>Table-14: VOLUME OF ELECTRICITY IMPORT THROUGH UI, FEBRUARY 2014</b>		
<b>Name of the State/UT/Other Regional Entity</b>	<b>Volume of Import (MUs)</b>	<b>% of Volume</b>
Andhra Pradesh	126.11	10.42%
West Bengal	101.33	8.37%
Haryana	94.83	7.84%
Kerala	70.10	5.79%
Punjab	53.04	4.38%
Uttarakhand	50.07	4.14%
Maharashtra	46.41	3.83%
Gujarat	42.37	3.50%
J & K	39.65	3.28%
MP	39.35	3.25%
Rajasthan	38.39	3.17%
Bihar	37.44	3.09%
Orissa	36.00	2.97%
NHPC Stations	34.36	2.84%
Uttar Pradesh	31.48	2.60%
Chattisgarh	30.04	2.48%
Karnataka	28.98	2.39%
CGPL	27.79	2.30%
Tamilnadu	22.73	1.88%
Himachal Pradesh	20.18	1.67%
Assam	19.99	1.65%
DVC	15.86	1.31%
UT Chandigarh	15.59	1.29%
STERLITE	15.46	1.28%
Delhi	14.66	1.21%
Arunachal Pradesh	14.36	1.19%
Meghalaya	13.25	1.10%
Dadra & Nagar Haveli	12.35	1.02%
Daman and Diu	11.67	0.96%
SIMHAPURI	10.92	0.90%
Goa	8.29	0.69%
RGPPL(Dabhol)	8.22	0.68%
Jharkhand	8.10	0.67%
DCPP	7.75	0.64%
BALCO	7.38	0.61%
SHREE CEMENT	7.32	0.61%
NJPC	6.71	0.55%
Manipur	6.39	0.53%
Tripura	5.42	0.45%
JINDAL POWER	4.76	0.39%
Mizoram	4.09	0.34%
Nagaland	3.70	0.31%
MAITHON POWER LTD	2.93	0.24%
ACBIL	2.75	0.23%
NEEPCO Stations	2.66	0.22%
KARCHAM WANGTOO	2.37	0.20%
LANKO_AMK	2.29	0.19%
NSPCL	1.67	0.14%
Pondicherry	1.33	0.11%
Sikkim	1.12	0.09%
AD HYDRO	0.31	0.03%
<b>Total</b>	<b>1210.34</b>	<b>100.00%</b>
<b>Volume of Import by top 5 States</b>	<b>445.42</b>	<b>36.80%</b>

<b>Table-15: TOTAL VOLUME OF NET SHORT-TERM TRANSACTIONS OF ELECTRICITY (REGIONAL ENTITY-WISE), FEBRUARY 2014</b>		
<b>Sr.No.</b>	<b>Name of the State/UT/Other Regional Entity</b>	<b>Total volume of net short-term transactions of electricity*</b>
1	Rajasthan	821.82
2	Andhra Pradesh	783.05
3	Uttarakhand	375.72
4	J & K	352.82
5	Tamilnadu	266.06
6	Himachal Pradesh	233.72
7	Bihar	183.09
8	ESSAR STEEL	145.28
9	Maharashtra	142.61
10	Jharkhand	134.68
11	West Bengal	113.99
12	Dadra & Nagar Haveli	83.73
13	Assam	62.87
14	Uttar Pradesh	61.24
15	Meghalaya	57.80
16	Daman and Diu	39.44
17	Arunachal Pradesh	22.94
18	CGPL	21.06
19	UT Chandigarh	12.29
20	Nagaland	10.22
21	RGPPPL(Dabhol)	8.22
22	Manipur	2.88
23	Mizoram	2.64
24	Meenakshi	0.59
25	LANKO_AMK	0.06
26	RANGIT HEP	-0.15
27	MALANA	-0.16
28	ESSAR POWER	-0.17
29	DOYANG HEP	-0.53
30	URI-2	-0.61
31	Kerala	-1.89
32	NSPCL	-3.38
33	RANGANADI HEP	-3.57
34	LANCO BUDHIL	-4.02
35	NJPC	-4.47
36	Goa	-4.50
37	Sikkim	-4.61
38	BALCO	-4.66
39	CHUZACHEN HEP	-6.67
40	Pondicherry	-7.22
41	AD HYDRO	-9.49
42	NHPC Stations	-12.12
43	ADHUNIK POWER LTD	-13.16
44	ONGC PALATANA	-22.86
45	ACBIL	-23.71
46	NEEPCO Stations	-24.62
47	DCPP	-27.58
48	EMCO	-46.73
49	Tripura	-47.16
50	MAITHON POWER LTD	-49.79
51	Orissa	-90.86
52	KARCHAM WANGTOO	-92.57
53	DVC	-115.13
54	Chattisgarh	-121.39
55	SHREE CEMENT	-123.20
56	MP	-145.94
57	Gujarat	-146.48
58	Haryana	-155.64
59	Punjab	-166.21
60	SIMHAPURI	-173.69
61	STERLITE	-202.27
62	JINDAL POWER	-374.18
63	Karnataka	-515.90
64	Delhi	-735.02

\* 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

<b>Table-16: DETAILS OF CONGESTION IN POWER EXCHANGES, FEBRUARY 2014</b>			
	<b>Details of Congestion</b>	<b>IEX</b>	<b>PXIL</b>
A	Unconstrained Cleared Volume* (MUs)	2752.71	77.23
B	Actual Cleared Volume and hence scheduled (MUs)	2171.72	65.26
C	Volume of electricity that could not be cleared and hence not scheduled because of congestion (MUs) (A-B)	580.99	11.96
D	Volume of electricity that could not be cleared as % to Unconstrained Cleared Volume	21.11%	15.49%
E	Percentage of the time congestion occurred during the month (Number of hours congestion occurred/Total number of hours in the month)	100.00%	73.85%
F	Congestion occurrence (%) time block wise		
	0.00 - 6.00 hours	25.00%	24.18%
	6.00 - 12.00 hours	25.00%	29.52%
	12.00 - 18.00 hours	25.00%	27.86%
	18.00 - 24.00 hours	25.00%	18.44%
* This power would have been scheduled had there been no congestion.			
Source: IEX & PXIL			

<b>Table-17: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY IN INDIA (MUs), FEBRUARY 2014 (DAY-WISE)</b>						
Date	Bilateral		Power Exchange (Area Clearing Volume# of Day Ahead Market)		Unscheduled Interchange (Over Drawl+Under Generation)	Total Electricity Generation (MU) as given at CEA Website*
	Through Traders and PXs**	Direct	IEX	PXI		
1-Feb-14	96.82	30.87	75.88	2.51	49.58	2699.29
2-Feb-14	98.92	29.66	83.45	1.97	50.10	2628.07
3-Feb-14	98.84	29.44	87.46	2.39	49.56	2697.34
4-Feb-14	98.32	30.52	88.78	2.53	49.04	2725.13
5-Feb-14	99.90	30.52	88.76	2.61	51.17	2772.66
6-Feb-14	99.48	30.99	86.19	2.79	56.47	2769.82
7-Feb-14	114.12	31.50	78.27	2.04	57.30	2738.08
8-Feb-14	117.21	31.66	74.31	2.21	50.08	2739.37
9-Feb-14	117.59	30.22	79.84	2.37	50.61	2683.98
10-Feb-14	117.16	30.97	76.57	2.39	49.01	2765.05
11-Feb-14	117.74	31.66	77.22	2.43	46.30	2768.70
12-Feb-14	124.43	31.70	78.69	2.06	52.12	2773.21
13-Feb-14	117.62	31.68	73.78	2.29	56.09	2761.93
14-Feb-14	115.62	30.94	79.84	2.26	62.11	2746.04
15-Feb-14	113.98	31.80	84.38	1.62	58.88	2694.64
16-Feb-14	114.08	30.20	77.81	1.97	55.41	2617.63
17-Feb-14	119.09	31.67	76.77	2.18	46.43	2686.04
18-Feb-14	119.16	32.13	71.93	2.17	39.96	2691.09
19-Feb-14	117.74	32.40	77.31	2.49	39.26	2761.69
20-Feb-14	116.00	32.48	78.71	2.33	41.67	2776.50
21-Feb-14	113.30	32.77	72.26	2.54	45.73	2753.58
22-Feb-14	116.59	32.97	79.29	2.30	45.00	2732.56
23-Feb-14	112.54	30.22	71.43	2.39	50.52	2674.57
24-Feb-14	118.01	31.77	74.28	2.58	42.05	2698.01
25-Feb-14	121.91	31.94	70.78	2.29	42.52	2698.15
26-Feb-14	117.74	31.78	65.53	2.44	48.97	2679.09
27-Feb-14	122.23	30.75	69.14	2.48	53.52	2652.40
28-Feb-14	122.68	30.83	73.06	2.63	58.43	2560.87
<b>Total</b>	<b>3178.80</b>	<b>876.03</b>	<b>2171.72</b>	<b>65.26</b>	<b>1397.88</b>	<b>75945.49</b>

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), FEBRUARY 2014 (DAY-WISE)**

Market Segment	Day ahead market of IEX			Day ahead market of PXIL			Under Draw/Over Draw from the Grid (UI)						
	Date	Minimum ACP	Maximum ACP	Weighted Average Price*	Minimum ACP	Maximum ACP	Weighted Average Price*	NEW Grid			SR Grid		
								Minimum Price	Maximum Price	Average Price**	Minimum Price	Maximum Price	Average Price**
1-Feb-14	1.41	5.46	3.03	1.40	4.37	3.10	0.00	4.50	1.86	0.00	4.78	2.00	
2-Feb-14	0.10	5.41	2.91	1.28	2.99	2.20	0.00	4.22	1.66	0.00	4.50	1.79	
3-Feb-14	0.10	5.36	3.00	2.10	4.37	2.79	0.33	5.63	2.63	0.50	5.91	2.78	
4-Feb-14	1.00	5.36	3.06	1.00	4.37	2.38	0.33	5.06	2.28	0.50	5.06	2.44	
5-Feb-14	1.00	5.41	3.11	1.00	5.04	2.90	0.17	5.63	2.33	0.17	5.91	2.48	
6-Feb-14	1.25	5.51	3.23	1.85	4.76	3.10	0.00	7.09	1.97	0.00	7.37	2.08	
7-Feb-14	0.91	5.51	3.48	1.55	5.50	3.13	0.00	5.06	1.60	0.00	5.34	1.71	
8-Feb-14	1.05	5.51	3.40	2.00	4.30	3.16	0.00	5.06	2.10	0.00	5.34	2.25	
9-Feb-14	0.92	5.51	3.20	1.70	4.25	2.79	0.00	5.63	1.88	0.00	5.91	2.00	
10-Feb-14	0.05	5.51	3.44	2.00	4.70	3.41	0.00	5.06	2.50	0.00	5.06	2.50	
11-Feb-14	0.05	5.51	3.42	1.60	4.70	3.04	0.00	5.34	2.38	0.00	5.34	2.38	
12-Feb-14	0.30	5.51	3.46	2.00	4.76	3.38	0.00	5.34	1.91	0.00	5.34	1.91	
13-Feb-14	0.85	5.51	3.45	1.70	5.50	3.42	0.00	4.78	1.51	0.00	4.78	1.51	
14-Feb-14	0.80	5.51	3.61	1.75	5.00	3.26	0.00	4.50	1.36	0.00	4.50	1.36	
15-Feb-14	0.80	5.51	3.47	1.25	5.50	3.10	0.00	3.36	1.15	0.00	3.36	1.15	
16-Feb-14	1.00	5.21	3.10	1.00	5.50	2.49	0.00	4.22	1.22	0.00	4.22	1.22	
17-Feb-14	0.82	5.21	3.22	1.50	4.50	2.92	0.00	3.45	0.62	0.00	3.45	0.62	
18-Feb-14	0.75	5.21	3.24	2.00	4.75	3.28	0.00	3.45	0.82	0.00	3.45	0.82	
19-Feb-14	1.50	5.21	3.24	1.00	4.33	2.47	0.00	5.74	1.32	0.00	5.74	1.32	
20-Feb-14	1.50	5.21	3.18	2.00	4.70	3.26	0.00	7.20	2.30	0.00	7.20	2.30	
21-Feb-14	1.50	5.01	3.14	1.00	4.00	2.73	0.00	5.74	1.21	0.00	5.74	1.21	
22-Feb-14	0.93	4.91	3.21	2.00	4.00	3.01	0.00	6.36	0.65	0.00	6.36	0.65	
23-Feb-14	1.10	8.10	2.79	2.00	3.85	2.91	0.00	5.11	0.48	0.00	5.11	0.48	
24-Feb-14	1.50	5.11	2.93	2.00	3.40	2.80	0.00	3.45	0.83	0.00	3.45	0.83	
25-Feb-14	1.13	12.01	2.85	2.00	9.00	2.97	0.00	3.45	1.28	0.00	3.45	1.28	
26-Feb-14	1.01	5.25	2.74	2.00	4.50	2.97	0.00	5.32	1.42	0.00	5.32	1.42	
27-Feb-14	1.21	5.11	2.75	1.90	4.00	2.89	0.00	3.24	0.58	0.00	3.24	0.58	
28-Feb-14	1.01	5.25	2.83	1.50	3.51	2.67	0.00	8.24	1.46	0.00	8.24	1.46	
	<b>0.05#</b>	<b>12.01#</b>	<b>3.17</b>	<b>1.00#</b>	<b>9.00#</b>	<b>2.94</b>	<b>0.00#</b>	<b>8.24#</b>	<b>1.55</b>	<b>0.00#</b>	<b>8.24#</b>	<b>1.59</b>	

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), FEBRUARY 2014**

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	228.35	2.16	-226.19	28.27	70.98	42.71	35.78	53.04	17.26	-166.21
Haryana	384.35	171.09	-213.26	153.17	160.70	7.53	44.73	94.83	50.10	-155.64
Rajasthan	107.05	550.04	442.99	14.60	451.87	437.27	96.83	38.39	-58.44	821.82
Delhi	520.21	23.07	-497.14	192.39	3.06	-189.34	63.21	14.66	-48.55	-735.02
Uttar Pradesh	139.66	321.60	181.95	0.00	4.23	4.23	156.42	31.48	-124.94	61.24
Uttarakhand	0.00	193.56	193.56	4.25	145.08	140.83	8.74	50.07	41.33	375.72
Himachal Pradesh	0.00	280.19	280.19	61.06	7.74	-53.32	13.33	20.18	6.85	233.72
J & K	12.76	324.86	312.10	4.10	29.36	25.26	24.20	39.65	15.46	352.82
UT Chandigarh	0.00	0.00	0.00	0.62	0.00	-0.62	2.68	15.59	12.91	12.29
MP	45.27	139.15	93.88	258.50	26.02	-232.48	46.69	39.35	-7.34	-145.94
Maharashtra	0.00	83.75	83.75	22.54	137.45	114.91	102.47	46.41	-56.06	142.61
Gujarat	264.61	63.74	-200.86	639.73	727.94	88.21	76.20	42.37	-33.83	-146.48
Chattisgarh	31.80	5.86	-25.94	91.76	15.80	-75.96	49.54	30.04	-19.49	-121.39
Daman and Diu	0.00	0.00	0.00	0.00	28.43	28.43	0.66	11.67	11.01	39.44
Dadra & Nagar Haveli	0.00	72.58	72.58	0.00	0.00	0.00	1.19	12.35	11.15	83.73
Andhra Pradesh	14.47	536.44	521.97	11.03	148.79	137.76	2.79	126.11	123.32	783.05
Karnataka	427.79	0.00	-427.79	109.70	4.79	-104.91	12.18	28.98	16.79	-515.90
Kerala	267.59	196.04	-71.55	0.00	0.00	0.00	0.44	70.10	69.66	-1.89
Tamilnadu	0.00	276.86	276.86	0.00	0.59	0.59	34.11	22.73	-11.39	266.06
Pondicherry	0.00	0.00	0.00	0.00	0.00	0.00	8.54	1.33	-7.22	-7.22
West Bengal	276.00	305.84	29.84	32.25	21.93	-10.32	6.86	101.33	94.46	113.99
Orissa	36.57	0.00	-36.57	92.52	23.40	-69.13	21.17	36.00	14.83	-90.86
Bihar	0.00	111.70	111.70	0.00	46.93	46.93	12.97	37.44	24.47	183.09
Jharkhand	6.51	165.72	159.21	0.00	0.00	0.00	32.64	8.10	-24.54	134.68
Sikkim	0.00	0.00	0.00	2.32	0.00	-2.32	3.41	1.12	-2.29	-4.61
DVC	146.04	78.06	-67.98	27.60	0.00	-27.60	35.41	15.86	-19.55	-115.13
Arunachal Pradesh	0.00	0.00	0.00	0.00	8.79	8.79	0.21	14.36	14.15	22.94
Assam	6.48	38.91	32.43	0.31	18.27	17.97	7.52	19.99	12.47	62.87
Manipur	0.00	0.00	0.00	0.00	0.00	0.00	3.51	6.39	2.88	2.88
Meghalaya	0.00	38.73	38.73	2.46	9.27	6.80	0.99	13.25	12.27	57.80
Mizoram	0.00	0.00	0.00	1.00	0.00	-1.00	0.45	4.09	3.64	2.64
Nagaland	0.00	7.87	7.87	0.00	0.00	0.00	1.34	3.70	2.35	10.22
Tripura	14.57	0.00	-14.57	30.13	0.28	-29.84	8.16	5.42	-2.74	-47.16
Goa	0.00	0.00	0.00	0.00	0.00	0.00	12.80	8.29	-4.50	-4.50
NHPC Stations	0.00	0.00	0.00	2.34	0.00	-2.34	44.15	34.36	-9.79	-12.12
NJPC	0.00	0.00	0.00	4.48	0.00	-4.48	6.70	6.71	0.01	-4.47
AD HYDRO	0.00	0.00	0.00	9.38	0.00	-9.38	0.42	0.31	-0.11	-9.49
KARCHAM WANGTOO	71.68	0.00	-71.68	19.64	0.00	-19.64	3.62	2.37	-1.25	-92.57

SHREE CEMENT	85.37	0.00	-85.37	44.11	0.00	-44.11	1.05	7.32	6.28	-123.20
LANCO BUDHIL	0.00	0.00	0.00	4.02	0.00	-4.02	0.00	0.00	0.00	-4.02
MALANA	0.00	0.00	0.00	0.16	0.00	-0.16	0.00	0.00	0.00	-0.16
URI-2	0.00	0.00	0.00	0.61	0.00	-0.61	0.00	0.00	0.00	-0.61
JINDAL POWER	232.92	0.00	-232.92	90.78	0.00	-90.78	55.25	4.76	-50.49	-374.18
LANKO_AMK	0.00	0.00	0.00	0.00	0.00	0.00	2.22	2.29	0.06	0.06
NSPCL	0.00	0.00	0.00	0.00	0.00	0.00	5.04	1.67	-3.38	-3.38
ACBIL	21.61	0.00	-21.61	0.78	0.00	-0.78	4.07	2.75	-1.33	-23.71
BALCO	0.00	0.00	0.00	10.67	0.00	-10.67	1.37	7.38	6.01	-4.66
RGPPL(Dabhol)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.22	8.22	8.22
CGPL	0.00	0.00	0.00	0.00	0.00	0.00	6.73	27.79	21.06	21.06
DCPP	0.22	0.00	-0.22	33.87	0.00	-33.87	1.24	7.75	6.51	-27.58
EMCO	0.00	0.00	0.00	46.73	0.00	-46.73	0.00	0.00	0.00	-46.73
ESSAR STEEL	0.00	0.00	0.00	0.00	145.28	145.28	0.00	0.00	0.00	145.28
ESSAR POWER	0.00	0.00	0.00	0.17	0.00	-0.17	0.00	0.00	0.00	-0.17
SIMHAPURI	180.61	0.00	-180.61	3.51	0.00	-3.51	0.49	10.92	10.43	-173.69
Meenakshi	0.00	0.87	0.87	0.28	0.00	-0.28	0.00	0.00	0.00	0.59
STERLITE	136.69	0.00	-136.69	74.56	0.00	-74.56	6.48	15.46	8.98	-202.27
MAITHON POWER LTD	8.05	0.00	-8.05	39.57	0.00	-39.57	5.09	2.93	-2.16	-49.79
ADHUNIK POWER LTD	0.00	0.00	0.00	13.16	0.00	-13.16	0.00	0.00	0.00	-13.16
CHUZACHEN HEP	0.00	0.00	0.00	6.67	0.00	-6.67	0.00	0.00	0.00	-6.67
RANGIT HEP	0.00	0.00	0.00	0.15	0.00	-0.15	0.00	0.00	0.00	-0.15
NEEPCO Stations	0.00	0.00	0.00	24.09	0.00	-24.09	3.20	2.66	-0.53	-24.62
RANGANADI HEP	0.00	0.00	0.00	3.57	0.00	-3.57	0.00	0.00	0.00	-3.57
DOYANG HEP	0.00	0.00	0.00	0.53	0.00	-0.53	0.00	0.00	0.00	-0.53
ONGC PALATANA	0.00	0.00	0.00	22.86	0.00	-22.86	0.00	0.00	0.00	-22.86

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, FEBRUARY 2014					
Sr.No.	Details of REC Transactions	IEX		PXIL	
		Solar	Non-Solar	Solar	Non Solar
A	Volume of Buy Bid	7816	176107	492	202718
B	Volume of Sell Bid	114539	2015377	17527	2478331
C	Ratio of Buy Bid to Sell Bid Volume	0.07	0.09	0.03	0.08
D	Market Clearing Volume (MWh)	7816	176107	492	202718
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>