

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

## January, 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
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
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
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 January, 2014 is as under:

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

During the month of January 2014, total electricity generation excluding generation from renewable and captive power plants in India was 83123.00 MUs (Table-1).

Of the total electricity generation, 9467.51 MUs (11.39%) were transacted through short-term, comprising of 4519.63 MUs (5.44%) through Bilateral (through traders and term-ahead contracts on Power Exchanges and directly between distribution companies), followed by 2441.82 MUs (2.94%) through day ahead collective transactions on Power Exchanges (IEX and PXIL) and 2506.06 MUs (3.01%) through UI (Table-1 & Figure-2).

Of the total short-term transactions, Bilateral constitute 47.74% (33.23% through traders and term-ahead contracts on Power Exchanges and 14.51% directly between distribution companies) followed by 25.79% through day ahead collective transactions on Power Exchanges and 26.47% 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 31.01.2014, of which only 20 have engaged in trading during January 2014. Top 5 trading licensees had a share of 67.86% 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 0.1416 for the month of January 2014, which indicates that there was non-concentration of market power (Table-2).

The volume of electricity transacted through IEX and PXIL in the day ahead market was 2346.50 MUs and 95.32 MUs respectively. The volume of total Buy bids and Sale bids was 3848.00 MUs and 4137.11 MUs respectively in IEX and 136.07 MUs and 330.84 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 (0.93 times) and PXIL (0.41 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 19.89 MUs and 26.41 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 ₹4.12/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 ₹4.15/kWh, ₹3.68/kWh and ₹3.54/kWh respectively. Minimum and Maximum sale prices were ₹2.68/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 ₹0.10/kWh, ₹18.00/kWh and ₹3.05/kWh respectively in IEX and ₹0.50/kWh, ₹5.69/kWh and ₹3.02/kWh respectively in PXIL (Table-5).

The price of electricity transacted through IEX and PXIL in the term-ahead market was ₹3.96/kWh and ₹4.23/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 ₹1.87/kWh in the NEW Grid and ₹2.22/kWh in the SR Grid. Minimum and Maximum UI prices were ₹0.00/kWh and ₹7.93/kWh respectively in the New Grid, and ₹0.00/kWh and ₹8.49/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 54.08% of the volume, and these were Delhi, Gujarat, Haryana, West Bengal and Punjab. Top 5 regional entities purchased 57.76% of the volume, and these were Rajasthan, Uttar Pradesh, Andhra Pradesh, Jammu & Kashmir and Uttarakhand (Table-9, 10 & 19).

Of the total Power Exchange transactions, top 5 regional entities sold 60.68% of the volume, and these were Gujarat, Madhya Pradesh Rajasthan, Orissa and Karnataka. Top 5 regional entities purchased 69.39% of the volume, and these were Gujarat, Rajasthan, Andhra Pradesh, West Bengal and Maharashtra (Table-11, 12 & 19).

Of the total UI transactions, top 5 regional entities underdrew 48.73% of the volume, and these were Uttar Pradesh, Tamilnadu, Rajasthan, Maharashtra and Madhya Pradesh. Top 5 regional entities overdrew 39.40% of the volume, and these were West Bengal, Punjab, Haryana, Andhra Pradesh and Maharashtra (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, Haryana, Gujarat and Jindal Power. Top 5 electricity purchasing regional entities were Andhra Pradesh, Rajasthan, Uttarakhand, Jammu & Kashmir and Himachal Pradesh.

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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 January 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 18.86% and 17.63% of the unconstrained cleared volume in IEX and PXIL, respectively. In terms of time, congestion occurred was 100.00% in IEX and 88.74% in PXIL.

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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.



## **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.

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 January 2014 are shown in Table-20. The market clearing volume of Solar RECs transacted on IEX and PXIL were 5517 and 844 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 78955 and 280042 respectively and the market clearing price of these RECs was ₹1500/MWh on both the power exchanges.

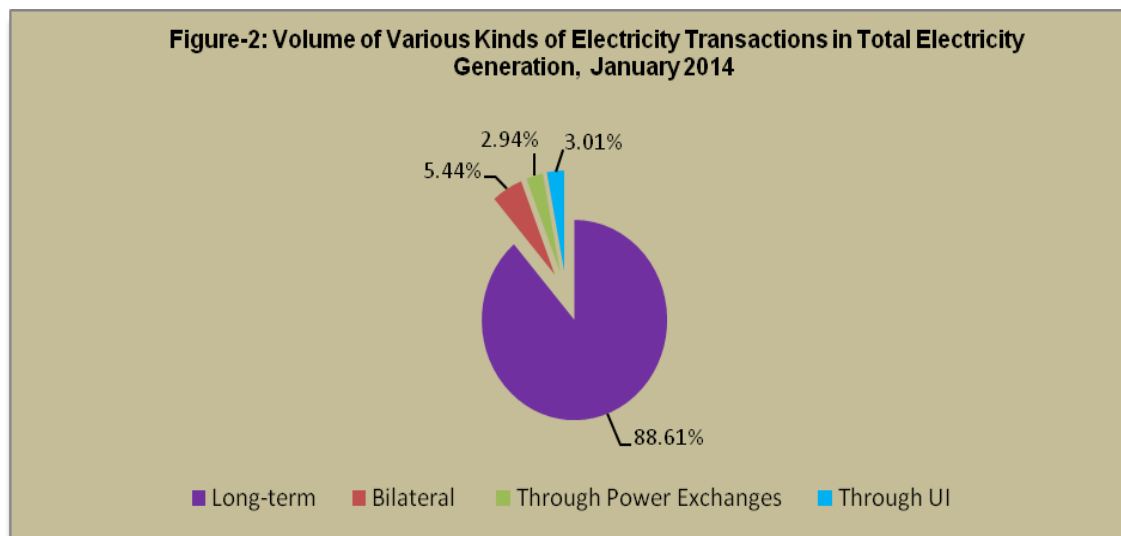
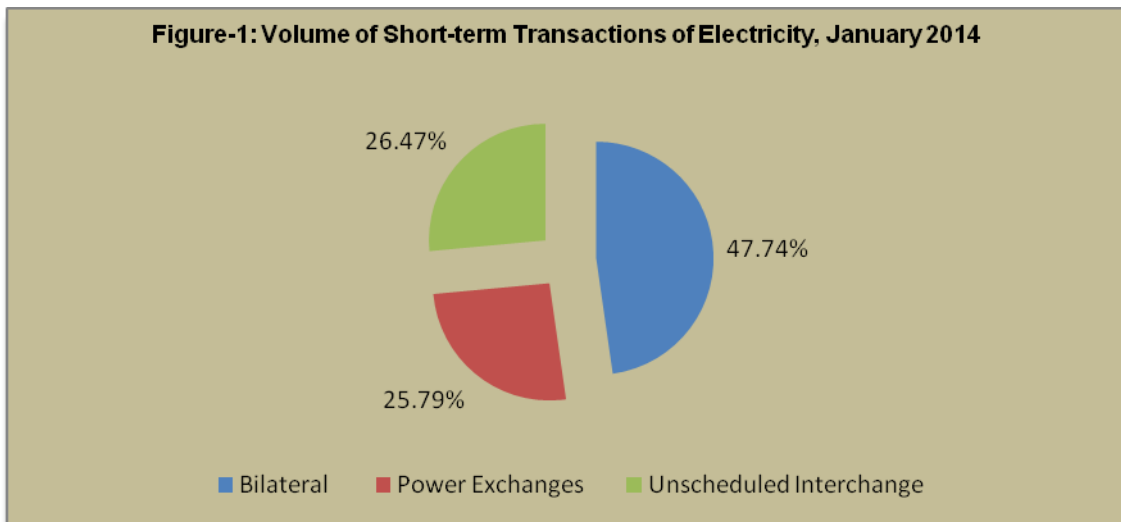
The gap between the volume of buy and sell bids of RECs placed through power exchanges show that there was less demand for Solar RECs and Non-Solar RECs. For Solar RECs, the ratio of buy and sell bids was 0.06 and 0.05 in IEX and PXIL respectively. For Non-Solar RECs, the ratio of buy and sell bids was 0.03 and 0.14 in IEX and PXIL respectively.

## VI: Inferences:

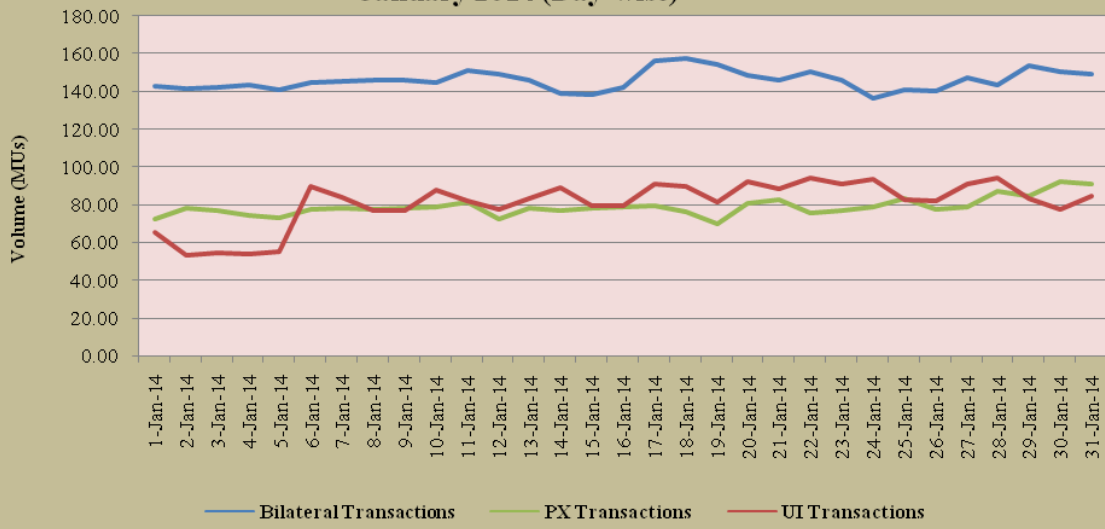
- The percentage of short-term transactions of electricity to total electricity generation was 11.39%.
- Of the total short-term transactions of electricity, 47.74% was transacted through bilateral (through traders and term ahead contracts on power exchanges and directly by distribution companies), followed by 25.79% through Power Exchanges and 26.47% through UI.
- Top 5 trading licensees had a share of 67.86% in the total volume traded by all the trading licensees.
- The Herfindahl Hirschman Index computed for volume of electricity traded by trading licensees was 0.1416, indicating non-concentration of market power.
- The price of electricity transacted through trading licensees (₹4.12/kWh) was higher when compared with the price of electricity transacted through IEX (₹3.05/kWh) and PXIL (₹3.02/kWh) respectively.
- The price of electricity transacted through UI was ₹1.87/kWh in the NEW Grid and ₹2.22/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: 0.93) and PXIL (1: 0.41) when compared with the supply offered through these exchanges.
- Top 5 electricity selling regional entities were Delhi, Karnataka, Haryana, Gujarat and Jindal Power. Top 5 electricity purchasing regional entities were Andhra Pradesh, Rajasthan, Uttarakhand, Jammu & Kashmir and Himachal Pradesh.
- The volume of electricity that could not be cleared in the power exchanges due to congestion was 18.86% and 17.63% of the unconstrained cleared volume in IEX and PXIL, respectively. In terms of time, congestion occurred was 100.00% in IEX and 88.74% in PXIL.
- The market clearing volume of Solar RECs transacted on IEX and PXIL were 5517 and 844 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 78955 and 280042 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), JANUARY 2014				
Sr.No	Short-term transactions	Volume (MUs)	% to Volume of short-term transactions	% to Total Generation
1	Bilateral	4519.63	47.74%	5.44%
	(i) Through Traders and PXs	3145.98	33.23%	3.78%
	(ii) Direct	1373.65	14.51%	1.65%
2	Through Power Exchanges	2441.82	25.79%	2.94%
	(i) IEX	2346.50	24.78%	2.82%
	(ii) PXIL	95.32	1.01%	0.11%
3	Through UI	2506.06	26.47%	3.01%
	<b>Total</b>	<b>9467.51</b>	<b>100.00%</b>	<b>11.39%</b>
	<b>Total Generation</b>	<b>83123.00</b>	–	–

Source: NLDC



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



<b>Table-2: PERCENTAGE SHARE OF ELECTRICITY TRANSACTED BY TRADING LICENSEES, JANUARY 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.	30.00%	0.0900
2	JSW Power Trading Company Ltd	11.39%	0.0130
3	Tata Power Trading Company (P) Ltd.	10.69%	0.0114
4	GMR Energy Trading Ltd.	8.05%	0.0065
5	Reliance Energy Trading (P) Ltd	7.72%	0.0060
6	Mittal Processors (P) Ltd.	7.06%	0.0050
7	Adani Enterprises Ltd.	6.15%	0.0038
8	Shree Cement Ltd.	4.68%	0.0022
9	NTPC Vidyut Vyapar Nigam Ltd.	4.55%	0.0021
10	Knowledge Infrastructure Systems (P) Ltd	2.68%	0.0007
11	RPG Power Trading Company Ltd.	2.18%	0.0005
12	Manikaran Power Ltd.	1.68%	0.0003
13	Instinct Infra & Power Ltd.	0.94%	0.0001
14	National Energy Trading & Services Ltd.	0.86%	0.0001
15	Jaiprakash Associates Ltd.	0.67%	0.0000
16	Arunachal Pradesh Power Corporation (P) ltd	0.21%	0.0000
17	Pune Power Development (P) Ltd.	0.21%	0.0000
18	Customized Energy Solutions India (P) Ltd.	0.13%	0.0000
19	Indrajit Power Technology (P) Ltd.	0.12%	0.0000
20	Essar Electric Power Development Corp. Ltd.	0.03%	0.0000
<b>TOTAL</b>		<b>100.00%</b>	<b>0.1416</b>
<b>Top 5 trading licensees</b>		<b>67.86%</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>			

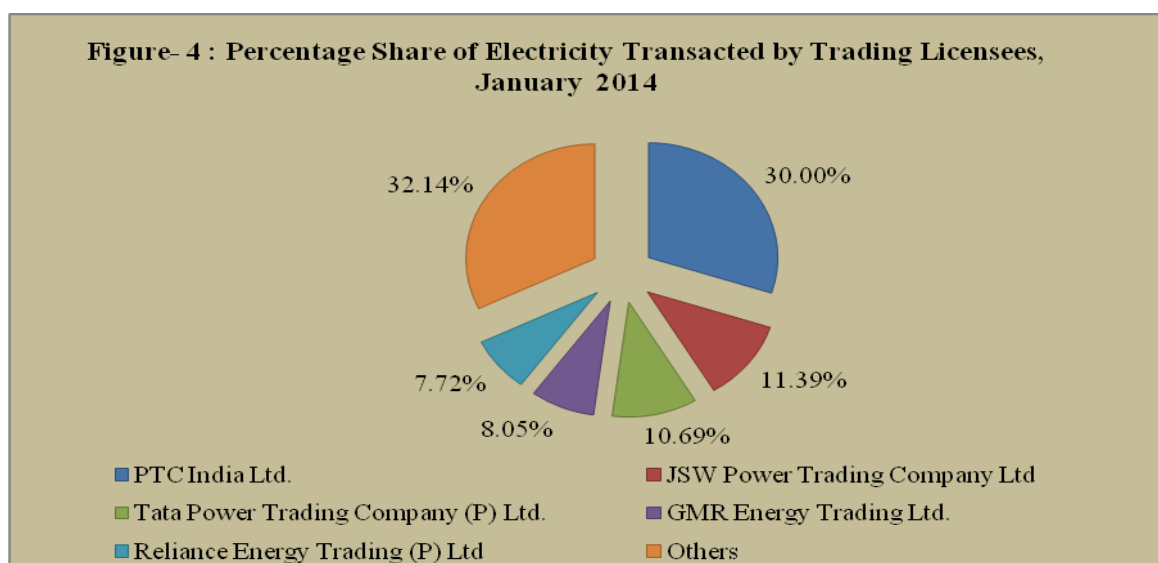


Table-3: PRICE OF ELECTRICITY TRANSACTED THROUGH TRADERS, JANUARY 2014		
Sr.No		Sale Price of Traders (₹/kWh)
1	Minimum	2.68
2	Maximum	6.97
3	Weighted Average	4.12

Source: Information submitted by trading licensees

Table-4: PRICE OF ELECTRICITY TRANSACTED THROUGH TRADERS (TIME-WISE), JANUARY 2014		
Sr.No	Period of Trade	Sale Price of Traders (₹/kWh)
1	RTC	4.15
2	PEAK	3.68
3	OFF PEAK	3.54

Source: Information submitted by trading licensees

Table-5: PRICE OF ELECTRICITY TRANSACTED THROUGH POWER EXCHANGES, JANUARY 2014			
Sr.No	ACP	Price in IEX (₹/kWh)	Price in PXIL (₹/kWh)
1	Minimum	0.10	0.50
2	Maximum	18.00	5.69
3	Weighted Average	3.05	3.02

Source: Information submitted by IEX and PXIL

Table-6: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF IEX, JANUARY 2014			
Sr.No	Term ahead contracts	Actual Scheduled Volume (MUs)	Weighted Average Price (₹/kWh)
1	Intra-Day Contracts	10.40	3.83
2	Day Ahead Contingency Contracts	6.34	3.90
3	Daily Contracts	3.16	4.50
	<b>Total</b>	<b>19.89</b>	<b>3.96</b>

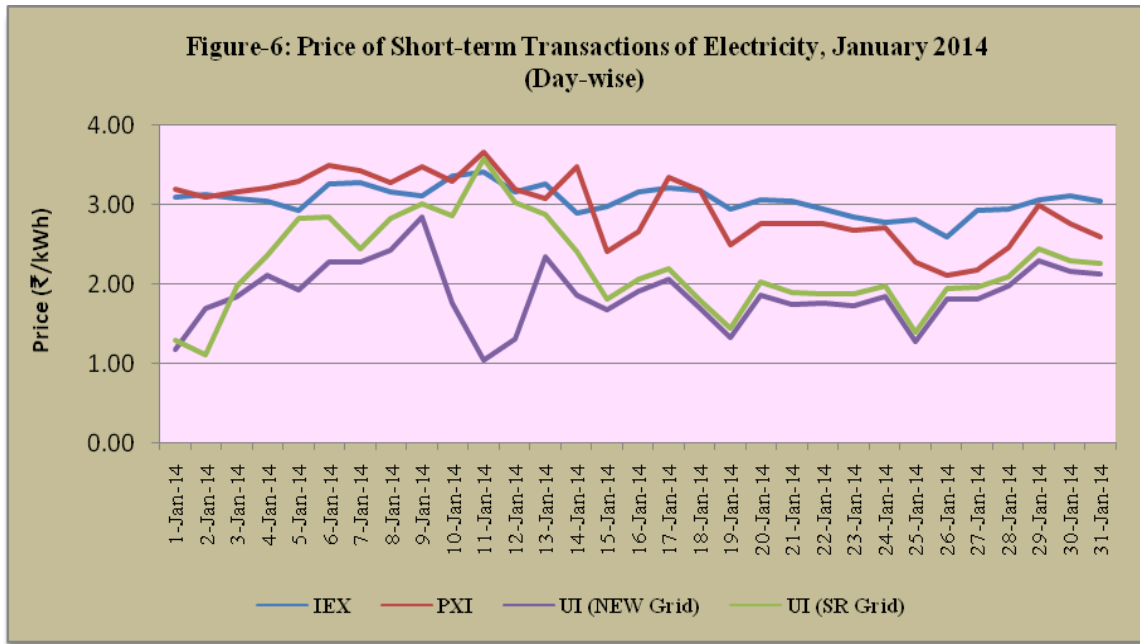
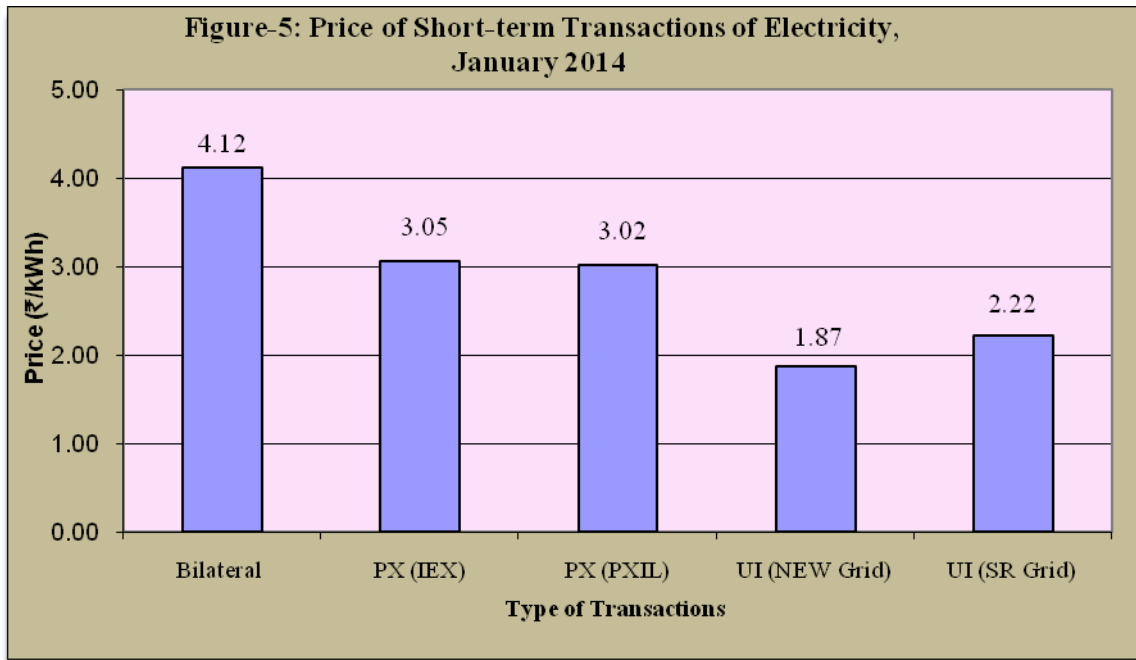
Source: IEX

Table-7: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF PXIL, JANUARY 2014			
Sr.No	Term ahead contracts	Actual Scheduled Volume (MUs)	Weighted Average Price (₹/kWh)
1	Intra-Day Contracts	2.46	3.45
2	Day Ahead Contingency Contracts	1.97	4.04
3	Weekly Contracts	21.98	4.34
	<b>Total</b>	<b>26.41</b>	<b>4.23</b>

Source: PXIL

Table-8: PRICE OF ELECTRICITY TRANSACTED THROUGH UI, JANUARY 2014			
Sr.No		Price in NEW Grid (₹/kWh)	Price in SR Grid (₹/kWh)
1	Minimum	0	0
2	Maximum	7.93	8.49
3	Average	1.87	2.22

Source: NLDC



<b>Table-9: VOLUME OF ELECTRICITY SALE THROUGH BILATERAL, JANUARY 2014</b>		
<b>Name of the State/UT/Other Regional Entity</b>	<b>Volume of Sale (MUs)</b>	<b>% of Volume</b>
Delhi	572.00	13.55%
Gujarat	568.52	13.47%
Haryana	487.69	11.56%
West Bengal	336.38	7.97%
Punjab	317.97	7.53%
Karnataka	308.81	7.32%
Kerala	273.81	6.49%
Rajasthan	171.94	4.07%
SHREE CEMENT	170.14	4.03%
JINDAL POWER	166.99	3.96%
DVC	160.21	3.80%
SIMHAPURI	143.92	3.41%
Uttar Pradesh	106.41	2.52%
Chhattisgarh	102.42	2.43%
MAITHON POWER LTD	99.13	2.35%
KARCHAM WANGTOO	80.29	1.90%
STERLITE	74.88	1.77%
Orissa	26.75	0.63%
ACBIL	23.01	0.55%
J & K	16.06	0.38%
Maharashtra	5.42	0.13%
Tripura	3.93	0.09%
MP	2.54	0.06%
Jharkhand	1.10	0.03%
<b>Total</b>	<b>4220.32</b>	<b>100.00%</b>
<b>Volume of sale by top 5 States</b>	<b>2282.56</b>	<b>54.08%</b>



**Table-10: VOLUME OF ELECTRICITY PURCHASE THROUGH BILATERAL, JANUARY 2014**

<b>Name of the State/UT/Other Regional Entity</b>	<b>Volume of Purchase (MUs)</b>	<b>% of Volume</b>
Rajasthan	805.68	18.64%
Uttar Pradesh	564.60	13.07%
Andhra Pradesh	471.60	10.91%
J & K	333.20	7.71%
Uttarakhand	320.80	7.42%
Himachal Pradesh	317.85	7.36%
Tamilnadu	275.17	6.37%
MP	251.82	5.83%
Jharkhand	166.16	3.85%
Kerala	108.25	2.50%
West Bengal	104.32	2.41%
Bihar	102.77	2.38%
Delhi	94.14	2.18%
DVC	84.71	1.96%
Dadra & Nagar Haveli	66.96	1.55%
Gujarat	61.73	1.43%
Maharashtra	49.42	1.14%
Assam	40.86	0.95%
Meghalaya	38.78	0.90%
Haryana	35.83	0.83%
Nagaland	9.32	0.22%
Chhattisgarh	8.15	0.19%
Punjab	5.58	0.13%
Orissa	2.41	0.06%
Meenakshi	0.99	0.02%
Mizoram	0.20	0.00%
<b>Total</b>	<b>4321.30</b>	<b>100.00%</b>
<b>Volume of Purchase by top 5 States</b>	<b>2495.89</b>	<b>57.76%</b>

<b>Table-11: VOLUME OF ELECTRICITY SALE THROUGH POWER EXCHANGES, JANUARY 2014</b>		
<b>Name of the State/UT/Other Regional Entity</b>	<b>Volume of Sale (MUs)</b>	<b>% of Volume</b>
Gujarat	537.29	22.00%
MP	292.09	11.96%
Rajasthan	268.53	11.00%
Orissa	208.44	8.54%
Karnataka	175.44	7.18%
Delhi	171.78	7.04%
Haryana	91.89	3.76%
JINDAL POWER	86.79	3.55%
STERLITE	84.37	3.46%
Chhattisgarh	58.32	2.39%
EMCO	46.44	1.90%
Andhra Pradesh	38.72	1.59%
Tripura	37.36	1.53%
Himachal Pradesh	37.17	1.52%
SIMHAPURI	32.63	1.34%
KARCHAM WANGTOO	29.51	1.21%
Maharashtra	25.17	1.03%
NEEPCO Stations	22.71	0.93%
ONGC PALATANA	22.69	0.93%
Punjab	21.83	0.89%
DCPP	18.73	0.77%
West Bengal	16.27	0.67%
DVC	13.17	0.54%
BALCO	12.29	0.50%
SHREE CEMENT	12.14	0.50%
AD HYDRO	10.74	0.44%
CHUZACHEN HEP	9.56	0.39%
Meenakshi	9.16	0.38%
ADHUNIK POWER LTD	8.00	0.33%
ESSAR POWER	7.17	0.29%
NJPC	5.28	0.22%
Uttarakhand	5.01	0.21%
MAITHON POWER LTD	4.83	0.20%
Assam	4.49	0.18%
J & K	3.74	0.15%
RANGANADI HEP	3.13	0.13%
UT Chandigarh	2.06	0.08%
ACBIL	1.87	0.08%
Meghalaya	1.76	0.07%
Sikkim	1.45	0.06%
Mizoram	1.21	0.05%
DOYANG HEP	0.61	0.03%
<b>Total</b>	<b>2441.82</b>	<b>100.00%</b>
<b>Volume of sale by top 5 States</b>	<b>1481.79</b>	<b>60.68%</b>

<b>Table-12: VOLUME OF ELECTRICITY PURCHASE THROUGH POWER EXCHANGES, JANUARY 2014</b>		
<b>Name of the State/UT/Other Regional Entity</b>	<b>Volume of Purchase (MUs)</b>	<b>% of Volume</b>
Gujarat	717.95	29.40%
Rajasthan	290.58	11.90%
Andhra Pradesh	242.52	9.93%
West Bengal	224.90	9.21%
Maharashtra	218.35	8.94%
Haryana	162.32	6.65%
Punjab	116.28	4.76%
Uttarakhand	101.00	4.14%
J & K	88.28	3.62%
ESSAR STEEL	79.99	3.28%
MP	37.37	1.53%
Bihar	36.72	1.50%
Daman and Diu	30.72	1.26%
Chhattisgarh	20.27	0.83%
Assam	15.19	0.62%
Himachal Pradesh	13.32	0.55%
Meghalaya	11.78	0.48%
Karnataka	10.47	0.43%
Arunachal Pradesh	8.66	0.35%
Uttar Pradesh	5.41	0.22%
Orissa	5.39	0.22%
Delhi	3.57	0.15%
Tamilnadu	0.75	0.03%
Tripura	0.03	0.00%
<b>Total</b>	<b>2441.82</b>	<b>100.00%</b>
<b>Volume of purchase by top 5 States</b>	<b>1694.31</b>	<b>69.39%</b>

<b>Table-13: VOLUME OF ELECTRICITY EXPORT THROUGH UI, JANUARY 2014</b>		
<b>Name of the State/UT/Other Regional Entity</b>	<b>Volume of Export (MUs)</b>	<b>% of Volume</b>
Uttar Pradesh	218.86	14.34%
Tamilnadu	179.23	11.75%
Rajasthan	152.34	9.98%
Maharashtra	105.45	6.91%
MP	87.69	5.75%
DVC	78.99	5.18%
Haryana	70.51	4.62%
Gujarat	62.34	4.09%
Delhi	62.08	4.07%
Karnataka	61.34	4.02%
Chhattisgarh	41.15	2.70%
JINDAL POWER	38.30	2.51%
NHPC Stations	35.11	2.30%
Jharkhand	33.93	2.22%
Orissa	32.63	2.14%
Punjab	25.94	1.70%
STERLITE	25.18	1.65%
J & K	23.46	1.54%
Pondicherry	19.66	1.29%
Goa	17.77	1.16%
Bihar	17.31	1.13%
Tripura	15.22	1.00%
Assam	14.83	0.97%
Himachal Pradesh	14.73	0.97%
NJPC	9.50	0.62%
Uttarakhand	8.84	0.58%
MAITHON POWER LTD	8.31	0.54%
CGPL	8.01	0.53%
NSPCL	7.75	0.51%
Andhra Pradesh	7.14	0.47%
NEEPCO Stations	5.01	0.33%
Sikkim	4.95	0.32%
West Bengal	4.06	0.27%
Daman and Diu	3.90	0.26%
Manipur	3.06	0.20%
LANKO_AMK	2.84	0.19%
KARCHAM WANGTOO	2.73	0.18%
Meghalaya	2.52	0.16%
SHREE CEMENT	2.40	0.16%
Dadra & Nagar Haveli	2.32	0.15%
BALCO	2.08	0.14%
DCPP	1.23	0.08%
SIMHAPURI	1.12	0.07%
UT Chandigarh	0.79	0.05%
Kerala	0.75	0.05%
ACBIL	0.72	0.05%
AD HYDRO	0.63	0.04%
Nagaland	0.56	0.04%
Mizoram	0.54	0.04%
Arunachal Pradesh	0.08	0.01%
<b>Total</b>	<b>1525.90</b>	<b>100.00%</b>
<b>Volume of Export by top 5 States</b>	<b>743.58</b>	<b>48.73%</b>

<b>Table-14: VOLUME OF ELECTRICITY IMPORT THROUGH UI, JANUARY 2014</b>		
<b>Name of the State/UT/Other Regional Entity</b>	<b>Volume of Import (MUs)</b>	<b>% of Volume</b>
West Bengal	205.55	12.94%
Punjab	118.21	7.44%
Haryana	116.54	7.34%
Andhra Pradesh	104.14	6.56%
Maharashtra	81.20	5.11%
Gujarat	77.07	4.85%
J & K	71.72	4.52%
Uttarakhand	66.59	4.19%
Bihar	66.03	4.16%
Orissa	63.92	4.03%
Kerala	62.36	3.93%
Chhattisgarh	48.53	3.06%
MP	40.27	2.54%
Uttar Pradesh	34.78	2.19%
NHPC Stations	34.77	2.19%
Rajasthan	31.76	2.00%
UT Chandigarh	29.44	1.85%
MAITHON POWER LTD	28.12	1.77%
CGPL	26.19	1.65%
Himachal Pradesh	25.80	1.62%
Assam	18.58	1.17%
Jharkhand	16.99	1.07%
DVC	16.64	1.05%
Dadra & Nagar Haveli	16.28	1.03%
ACBIL	16.01	1.01%
Arunachal Pradesh	15.92	1.00%
Delhi	14.09	0.89%
STERLITE	12.98	0.82%
Meghalaya	12.64	0.80%
Goa	11.14	0.70%
NJPC	10.49	0.66%
Manipur	9.45	0.60%
RGPPL(Dabhol)	9.02	0.57%
Karnataka	8.21	0.52%
Mizoram	7.70	0.48%
DCPP	7.17	0.45%
Nagaland	6.99	0.44%
Tamilnadu	6.77	0.43%
JINDAL POWER	5.53	0.35%
BALCO	4.85	0.31%
SHREE CEMENT	4.58	0.29%
Daman and Diu	4.45	0.28%
NEEPCO Stations	4.18	0.26%
Tripura	4.06	0.26%
LANKO_AMK	3.42	0.22%
KARCHAM WANGTOO	2.13	0.13%
SIMHAPURI	1.29	0.08%
NSPCL	1.14	0.07%
Sikkim	1.09	0.07%
Pondicherry	0.92	0.06%
AD HYDRO	0.32	0.02%
<b>Total</b>	<b>1588.01</b>	<b>100.00%</b>
<b>Volume of Import by top 5 States</b>	<b>625.64</b>	<b>39.40%</b>

<b>Table-15: TOTAL VOLUME OF NET SHORT-TERM TRANSACTIONS OF ELECTRICITY (REGIONAL ENTITY-WISE), JANUARY 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	Andhra Pradesh	772.40
2	Rajasthan	535.21
3	Uttarakhand	474.54
4	J & K	449.93
5	Himachal Pradesh	305.07
6	Uttar Pradesh	279.53
7	Maharashtra	212.94
8	Bihar	188.21
9	West Bengal	178.07
10	Jharkhand	148.12
11	Tamilnadu	103.45
12	Dadra & Nagar Haveli	80.92
13	ESSAR STEEL	79.99
14	Meghalaya	58.92
15	Assam	55.31
16	Daman and Diu	31.28
17	UT Chandigarh	26.59
18	Arunachal Pradesh	24.51
19	CGPL	18.17
20	Nagaland	15.76
21	RGPPPL(Dabhol)	9.01
22	Manipur	6.40
23	Mizoram	6.15
24	LANKO AMK	0.58
25	NHPC Stations	-0.34
26	DOYANG HEP	-0.61
27	RANGANADI HEP	-3.13
28	NJPC	-4.29
29	Sikkim	-5.31
30	NSPCL	-6.62
31	Goa	-6.64
32	ESSAR POWER	-7.17
33	ADHUNIK POWER LTD	-8.00
34	Meenakshi	-8.17
35	BALCO	-9.52
36	CHUZACHEN HEP	-9.56
37	ACBIL	-9.59
38	AD HYDRO	-11.04
39	DCPP(Donga Mahua Captive Power Plant)	-12.79
40	Pondicherry	-18.74
41	ONGC PALATANA	-22.69
42	NEEPCO Stations	-23.54
43	EMCO	-46.44
44	Tripura	-52.42
45	MP	-52.86
46	MAITHON POWER LTD	-84.15
47	Kerala	-103.96
48	KARCHAM WANGTOO	-110.39
49	Chattisgarh	-124.95
50	Punjab	-125.66
51	DVC	-151.03
52	STERLITE	-171.45
53	SIMHAPURI	-176.39
54	SHREE CEMENT	-180.10
55	Orissa	-196.12
56	JINDAL POWER	-286.55
57	Gujarat	-311.40
58	Haryana	-335.40
59	Karnataka	-526.91
60	Delhi	-694.06
* 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, JANUARY 2014</b>			
	<b>Details of Congestion</b>	<b>IEX</b>	<b>PXIL</b>
A	Unconstrained Cleared Volume* (MUs)	2891.78	115.72
B	Actual Cleared Volume and hence scheduled (MUs)	2346.50	95.32
C	Volume of electricity that could not be cleared and hence not scheduled because of congestion (MUs) (A-B)	545.28	20.40
D	Volume of electricity that could not be cleared as % to Unconstrained Cleared Volume	18.86%	17.63%
E	Percentage of the time congestion occurred during the month (Number of hours congestion occurred/Total number of hours in the month)	100.00%	88.74%
F	Congestion occurrence (%) time block wise		
	0.00 - 6.00 hours	25.00%	23.70%
	6.00 - 12.00 hours	25.00%	27.53%
	12.00 - 18.00 hours	25.00%	26.05%
	18.00 - 24.00 hours	25.00%	22.72%
<i>* This power would have been scheduled had there been no congestion.</i>			
<i>Source: IEX &amp; PXIL</i>			

**Table-17: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY IN INDIA (MUs), JANUARY 2014 (DAY-WISE)**

Date	Bilateral		Power Exchange (Area Clearing Volume# of Day Ahead Market)		Unscheduled Interchange (Over Drawl+Under Generation)
	Through Traders and PXs**	Direct	IEX	PXI	
1-Jan-14	96.44	46.43	68.70	3.80	65.52
2-Jan-14	95.41	46.28	74.72	3.18	53.11
3-Jan-14	96.02	45.88	73.18	3.67	54.11
4-Jan-14	97.51	45.97	70.43	3.91	53.87
5-Jan-14	95.43	45.37	69.29	3.68	55.34
6-Jan-14	99.08	45.45	73.75	3.49	89.46
7-Jan-14	99.21	46.24	75.48	2.64	83.72
8-Jan-14	99.79	46.18	74.10	3.07	76.72
9-Jan-14	99.02	46.66	75.40	2.78	76.72
10-Jan-14	97.40	46.87	74.54	4.06	87.55
11-Jan-14	104.46	46.58	76.68	4.69	82.25
12-Jan-14	103.13	45.91	67.32	4.79	77.86
13-Jan-14	100.56	45.03	74.88	2.95	83.19
14-Jan-14	104.56	34.40	72.50	4.20	89.05
15-Jan-14	103.23	35.00	75.48	2.31	79.47
16-Jan-14	105.40	36.35	76.75	2.14	79.55
17-Jan-14	107.49	48.52	76.18	2.95	91.03
18-Jan-14	109.48	47.70	73.58	2.59	89.50
19-Jan-14	107.16	46.61	67.62	2.18	81.68
20-Jan-14	102.46	45.60	78.35	2.54	92.62
21-Jan-14	99.06	46.63	80.14	2.50	88.77
22-Jan-14	103.92	46.57	72.77	2.74	94.29
23-Jan-14	103.60	42.43	73.96	2.73	91.19
24-Jan-14	93.93	42.45	76.05	2.64	93.41
25-Jan-14	97.64	42.86	80.55	2.55	82.64
26-Jan-14	97.57	42.77	75.42	2.19	82.20
27-Jan-14	103.66	43.38	76.14	2.48	91.25
28-Jan-14	100.29	43.28	84.34	2.62	94.11
29-Jan-14	109.22	44.26	82.08	2.62	83.51
30-Jan-14	107.20	43.33	88.87	3.21	77.86
31-Jan-14	106.64	42.65	87.25	3.40	84.51
<b>Total</b>	<b>3145.98</b>	<b>1373.65</b>	<b>2346.50</b>	<b>95.32</b>	<b>2506.06</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), JANUARY 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-Jan-14	1.54	5.01	3.09	1.45	4.94	3.20	0.00	3.65	1.18	0.00	3.93	1.29
2-Jan-14	1.45	5.01	3.13	1.50	4.70	3.10	0.00	4.22	1.69	0.00	7.09	1.10
3-Jan-14	1.45	5.01	3.07	1.50	4.70	3.17	0.00	5.63	1.84	0.00	5.91	1.97
4-Jan-14	1.45	5.01	3.05	1.45	5.00	3.22	0.00	4.78	2.12	0.00	5.06	2.36
5-Jan-14	0.10	5.01	2.92	1.36	5.05	3.30	0.00	5.06	1.93	0.17	5.34	2.84
6-Jan-14	0.10	18.00	3.25	2.00	5.10	3.51	0.00	5.91	2.28	0.00	5.63	2.85
7-Jan-14	0.25	5.51	3.27	1.40	5.50	3.43	0.00	5.63	2.29	0.00	5.91	2.45
8-Jan-14	0.90	5.51	3.15	1.38	5.28	3.29	0.00	5.34	2.43	0.50	5.34	2.83
9-Jan-14	1.00	5.51	3.10	2.00	5.50	3.48	0.33	5.63	2.85	0.50	5.91	3.02
10-Jan-14	1.45	5.51	3.35	1.24	5.50	3.30	0.00	5.06	1.76	0.00	5.91	2.86
11-Jan-14	1.35	5.51	3.40	1.46	5.69	3.67	0.00	3.08	1.04	0.00	7.09	3.59
12-Jan-14	1.10	5.51	3.15	1.42	4.50	3.20	0.00	3.65	1.31	0.00	7.09	3.03
13-Jan-14	1.42	5.51	3.26	1.25	4.95	3.08	0.17	5.34	2.34	0.33	5.91	2.89
14-Jan-14	1.00	5.51	2.90	2.00	5.60	3.48	0.00	7.65	1.86	0.00	8.49	2.41
15-Jan-14	1.25	5.51	2.98	0.50	3.80	2.42	0.00	3.93	1.68	0.00	4.22	1.80
16-Jan-14	1.30	5.51	3.15	1.25	4.50	2.66	0.00	5.06	1.91	0.00	5.06	2.06
17-Jan-14	1.36	5.51	3.20	1.97	5.65	3.35	0.00	7.65	2.06	0.00	7.93	2.20
18-Jan-14	1.25	5.51	3.17	1.33	5.25	3.19	0.00	4.50	1.68	0.00	4.78	1.79
19-Jan-14	1.10	5.51	2.94	1.00	4.25	2.49	0.00	3.36	1.33	0.00	3.65	1.44
20-Jan-14	1.10	5.51	3.05	1.33	4.10	2.76	0.00	3.93	1.86	0.00	4.22	2.02
21-Jan-14	1.10	5.51	3.03	1.28	4.35	2.77	0.00	5.06	1.74	0.00	5.34	1.88
22-Jan-14	1.21	5.51	2.94	1.33	4.25	2.77	0.00	5.06	1.76	0.00	5.06	1.88
23-Jan-14	1.35	5.51	2.84	1.34	3.96	2.68	0.00	7.93	1.73	0.00	8.49	1.87
24-Jan-14	1.33	5.51	2.77	1.31	3.70	2.71	0.00	5.34	1.85	0.00	5.34	1.97
25-Jan-14	1.20	5.51	2.81	1.00	3.90	2.27	0.00	3.93	1.28	0.00	4.22	1.40
26-Jan-14	1.25	5.51	2.59	1.25	2.65	2.11	0.00	4.50	1.81	0.00	4.78	1.94
27-Jan-14	1.00	5.51	2.92	1.00	2.91	2.17	0.00	5.06	1.81	0.00	5.34	1.95
28-Jan-14	1.20	5.51	2.94	1.37	3.39	2.46	0.00	5.34	1.97	0.00	5.34	2.09
29-Jan-14	1.00	5.61	3.05	1.32	5.00	3.00	0.33	5.34	2.30	0.50	5.34	2.45
30-Jan-14	1.00	5.61	3.11	1.50	3.65	2.77	0.17	5.63	2.15	0.33	5.91	2.30
31-Jan-14	1.37	5.51	3.03	1.35	3.60	2.59	0.00	4.78	2.12	0.00	5.06	2.27
	<b>0.10#</b>	<b>18.00#</b>	<b>3.05</b>	<b>0.50#</b>	<b>5.69#</b>	<b>3.02</b>	<b>0.00#</b>	<b>7.93#</b>	<b>1.87</b>	<b>0.00#</b>	<b>8.49#</b>	<b>2.22</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), JANUARY 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	317.97	5.58	-312.39	21.83	116.28	94.45	25.94	118.21	92.27	-125.66
Haryana	487.69	35.83	-451.87	91.89	162.32	70.44	70.51	116.54	46.03	-335.40
Rajasthan	171.94	805.68	633.74	268.53	290.58	22.05	152.34	31.76	-120.58	535.21
Delhi	572.00	94.14	-477.87	171.78	3.57	-168.21	62.08	14.09	-47.99	-694.06
Uttar Pradesh	106.41	564.60	458.20	0.00	5.41	5.41	218.86	34.78	-184.08	279.53
Uttarakhand	0.00	320.80	320.80	5.01	101.00	95.99	8.84	66.59	57.75	474.54
Himachal Pradesh	0.00	317.85	317.85	37.17	13.32	-23.85	14.73	25.80	11.08	305.07
J & K	16.06	333.20	317.14	3.74	88.28	84.54	23.46	71.72	48.25	449.93
UT Chandigarh	0.00	0.00	0.00	2.06	0.00	-2.06	0.79	29.44	28.65	26.59
MP	2.54	251.82	249.29	292.09	37.37	-254.73	87.69	40.27	-47.42	-52.86
Maharashtra	5.42	49.42	44.01	25.17	218.35	193.18	105.45	81.20	-24.25	212.94
Gujarat	568.52	61.73	-506.79	537.29	717.95	180.66	62.34	77.07	14.73	-311.40
Chhattisgarh	102.42	8.15	-94.28	58.32	20.27	-38.05	41.15	48.53	7.38	-124.95
Daman and Diu	0.00	0.00	0.00	0.00	30.72	30.72	3.90	4.45	0.55	31.28
Dadra & Nagar Haveli	0.00	66.96	66.96	0.00	0.00	0.00	2.32	16.28	13.96	80.92
Andhra Pradesh	0.00	471.60	471.60	38.72	242.52	203.81	7.14	104.14	97.00	772.40
Karnataka	308.81	0.00	-308.81	175.44	10.47	-164.97	61.34	8.21	-53.13	-526.91
Kerala	273.81	108.25	-165.56	0.00	0.00	0.00	0.75	62.36	61.60	-103.96
Tamilnadu	0.00	275.17	275.17	0.00	0.75	0.75	179.23	6.77	-172.46	103.45
Pondicherry	0.00	0.00	0.00	0.00	0.00	0.00	19.66	0.92	-18.74	-18.74
West Bengal	336.38	104.32	-232.06	16.27	224.90	208.64	4.06	205.55	201.49	178.07
Orissa	26.75	2.41	-24.35	208.44	5.39	-203.05	32.63	63.92	31.28	-196.12
Bihar	0.00	102.77	102.77	0.00	36.72	36.72	17.31	66.03	48.72	188.21
Jharkhand	1.10	166.16	165.06	0.00	0.00	0.00	33.93	16.99	-16.94	148.12
Sikkim	0.00	0.00	0.00	1.45	0.00	-1.45	4.95	1.09	-3.87	-5.31
DVC	160.21	84.71	-75.50	13.17	0.00	-13.17	78.99	16.64	-62.36	-151.03
Arunachal Pradesh	0.00	0.00	0.00	0.00	8.66	8.66	0.08	15.92	15.85	24.51
Assam	0.00	40.86	40.86	4.49	15.19	10.70	14.83	18.58	3.75	55.31
Manipur	0.00	0.00	0.00	0.00	0.00	0.00	3.06	9.45	6.40	6.40
Meghalaya	0.00	38.78	38.78	1.76	11.78	10.02	2.52	12.64	10.12	58.92
Mizoram	0.00	0.20	0.20	1.21	0.00	-1.21	0.54	7.70	7.16	6.15
Nagaland	0.00	9.32	9.32	0.00	0.00	0.00	0.56	6.99	6.44	15.76
Tripura	3.93	0.00	-3.93	37.36	0.03	-37.33	15.22	4.06	-11.15	-52.42
Goa	0.00	0.00	0.00	0.00	0.00	0.00	17.77	11.14	-6.64	-6.64
NHPC Stations	0.00	0.00	0.00	0.00	0.00	0.00	35.11	34.77	-0.34	-0.34
NJPC	0.00	0.00	0.00	5.28	0.00	-5.28	9.50	10.49	0.99	-4.29

AD HYDRO	0.00	0.00	0.00	10.74	0.00	-10.74	0.63	0.32	-0.31	-11.04
KARCHAM WANGTOO	80.29	0.00	-80.29	29.51	0.00	-29.51	2.73	2.13	-0.60	-110.39
SHREE CEMENT	170.14	0.00	-170.14	12.14	0.00	-12.14	2.40	4.58	2.18	-180.10
LANKO_AMK	0.00	0.00	0.00	0.00	0.00	0.00	2.84	3.42	0.58	0.58
NSPCL	0.00	0.00	0.00	0.00	0.00	0.00	7.75	1.14	-6.62	-6.62
ACBIL	23.01	0.00	-23.01	1.87	0.00	-1.87	0.72	16.01	15.29	-9.59
BALCO	0.00	0.00	0.00	12.29	0.00	-12.29	2.08	4.85	2.77	-9.52
RGPPL(Dabhol)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.02	9.01	9.01
CGPL	0.00	0.00	0.00	0.00	0.00	0.00	8.01	26.19	18.17	18.17
DCPP	0.00	0.00	0.00	18.73	0.00	-18.73	1.23	7.17	5.94	-12.79
EMCO	0.00	0.00	0.00	46.44	0.00	-46.44	0.00	0.00	0.00	-46.44
ESSAR STEEL	0.00	0.00	0.00	0.00	79.99	79.99	0.00	0.00	0.00	79.99
ESSAR POWER	0.00	0.00	0.00	7.17	0.00	-7.17	0.00	0.00	0.00	-7.17
SIMHAPURI	143.92	0.00	-143.92	32.63	0.00	-32.63	1.12	1.29	0.17	-176.39
Meenakshi	0.00	0.99	0.99	9.16	0.00	-9.16	0.00	0.00	0.00	-8.17
STERLITE	74.88	0.00	-74.88	84.37	0.00	-84.37	25.18	12.98	-12.21	-171.45
MAITHON POWER LTD	99.13	0.00	-99.13	4.83	0.00	-4.83	8.31	28.12	19.81	-84.15
ADHUNIK POWER LTD	0.00	0.00	0.00	8.00	0.00	-8.00	0.00	0.00	0.00	-8.00
CHUZACHEN HEP	0.00	0.00	0.00	9.56	0.00	-9.56	0.00	0.00	0.00	-9.56
NEEPCO Stations	0.00	0.00	0.00	22.71	0.00	-22.71	5.01	4.18	-0.83	-23.54
RANGANADI HEP	0.00	0.00	0.00	3.13	0.00	-3.13	0.00	0.00	0.00	-3.13
DOYANG HEP	0.00	0.00	0.00	0.61	0.00	-0.61	0.00	0.00	0.00	-0.61
ONGC PALATANA	0.00	0.00	0.00	22.69	0.00	-22.69	0.00	0.00	0.00	-22.69

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, JANUARY 2014					
Sr.No.	Details of REC Transactions	IEX		PXIL	
		Solar	Non-Solar	Solar	Non Solar
A	Volume of Buy Bid	5517	78955	844	280042
B	Volume of Sell Bid	88895	2557666	15626	1964896
C	Ratio of Buy Bid to Sell Bid Volume	0.06	0.03	0.05	0.14
D	Market Clearing Volume (MWh)	5517	78955	844	280042
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>