

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
ADHUNIK	Adhunik Power Ltd.
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
Jindal Stage II	Jindal Power Ltd Stage II
J&K	Jammu & Kashmir
KARCHAM WANGTOO	Jaypee Karcham Hydro Corporation Limited
LANCO_AMK	Lanco Amarkantak Power Private Limited
LANCO BUDHIL	Lanco Budhil Hydro Power Project
MAITHON	Maithon Power Ltd.
MALANA	Malana Hydroelectric Plant
Meenakshi	Meenakshi Energy Private Limited
MP	Madhya Pradesh
MUs	Million Units
NEEPCO Stations	North Eastern Electric Power Corporation Limited. Stations
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
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 March, 2014 is as under:

I: Volume of Short-term Transactions of Electricity

During the month of March 2014, total electricity generation excluding generation from renewable and captive power plants in India was 84637.38 MUs (Table-1).

Of the total electricity generation, 8102.36 MUs (9.57%) were transacted through short-term, comprising of 4284.55 MUs (5.06%) through Bilateral (through traders and term-ahead contracts on Power Exchanges and directly between distribution companies), followed by 2356.78 MUs (2.78%) through day ahead collective transactions on Power Exchanges (IEX and PXIL) and 1461.03 MUs (1.73%) through UI (Table-1 & Figure-2).

Of the total short-term transactions, Bilateral constitute 52.88% (44.90% through traders and term-ahead contracts on Power Exchanges and 7.98% directly between distribution companies) followed by 29.09% through day ahead collective transactions on Power Exchanges and 18.03% 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 31.03.2014, of which only 21 have engaged in trading during March 2014. Top 5 trading licensees had a share of 72.60% 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 0.1579 for the month of March 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 2281.78 MUs and 75 MUs respectively. The volume of total Buy bids and Sale bids was 3426.96 MUs and 3816.39 MUs respectively in IEX and 123.22 MUs and 165.60 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 (0.90 times) and less demand in PXIL (0.74 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 16.43 MUs and 5.30 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 ₹4.41/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 ₹4.47/kWh, ₹3.62/kWh and ₹3.51/kWh respectively. Minimum and Maximum sale prices were ₹2.55/kWh and ₹7.24/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 ₹0.50/kWh, ₹10/kWh and ₹2.86/kWh respectively in IEX and ₹1.00/kWh, ₹9.39/kWh and ₹2.76/kWh respectively in PXIL (Table-5).

The price of electricity transacted through IEX and PXIL in the term-ahead market was ₹3.38/kWh and ₹3.13/kWh respectively (Table-6 and Table-7).

(iii) Price of electricity transacted Through UI: Minimum, Maximum and average price of UI have been computed for all India grid and these were ₹0.00/kWh, ₹8.24/kWh and ₹1.69/kWh, respectively.

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 48.88% of the volume, and these were Karnataka, Delhi, Jindal Power Ltd., Gujarat and Sterlite Energy Ltd.. Top 5 regional entities purchased 61.79% of the volume, and these were Andhra Pradesh, Rajasthan, Uttar Pradesh, West Bengal and Tamilnadu (Table-9, 10 & 19).

Of the total Power Exchange transactions, top 5 regional entities sold 54.20% of the volume, and these were Madhya Pradesh, Gujarat, Orissa, Delhi and Chattisgarh. Top 5 regional entities purchased 68.93% of the volume, and these were Gujarat, Rajasthan, Maharashtra, Haryana and Essar Steel Ltd. (Table-11, 12 & 19).

Of the total UI transactions, top 5 regional entities underdrew 42.91% of the volume, and these were Maharashtra, Uttar Pradesh, Gujarat, Rajasthan, and Tamilnadu. Top 5 regional entities overdrew 34.35% of the volume, and these were Haryana, Uttar Pradesh, West Bengal, Maharashtra and Andhra 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 Delhi, Karnataka, Jindal Power Ltd, Madhya Pradesh and Sterlite Energy Ltd. Top 5 electricity purchasing regional entities were Andhra Pradesh, Rajasthan, Uttar Pradesh, Uttarakhand 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 March 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 19.32% and 6.99% of the unconstrained cleared volume in IEX and PXIL, respectively. In terms of time, congestion occurred was 100.00% in IEX and 54.07% 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 March 2014 are shown in Table-20. The market clearing volume of Solar RECs transacted on IEX and PXIL were 7211 and 3808 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 361842 and 296885 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 0.05 and 0.21 in IEX and PXIL respectively. For Non-Solar RECs, the ratio of buy and sell bids was 0.13 and 0.11 in IEX and PXIL respectively.

VI: Inferences:

- The percentage of short-term transactions of electricity to total electricity generation was 9.57%.
- Of the total short-term transactions of electricity, 52.88% 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 18.03% through UI.
- Top 5 trading licensees had a share of 72.60% in the total volume traded by all the trading licensees.
- The Herfindahl Hirschman Index computed for volume of electricity traded by trading licensees was 0.1579, indicating non-concentration of market power.
- The price of electricity transacted through trading licensees (₹4.41/kWh) was higher when compared with the price of electricity transacted through IEX (₹2.86/kWh) and PXIL (₹2.76/kWh) respectively.
- The price of electricity transacted through UI was ₹1.69/kWh.
- The gap between the volume of buy bids and sale bids placed through power exchanges indicates that there was less demand in IEX (1: 0.90) and in PXIL (1: 0.74) when compared with the supply offered through these exchanges.
- Top 5 electricity selling regional entities were Delhi, Karnataka, Jindal Power Ltd, Madhya Pradesh and Sterlite Energy Ltd. Top 5 electricity purchasing regional entities were Andhra Pradesh, Rajasthan, Uttar Pradesh, Uttarakhand and West Bengal.
- The volume of electricity that could not be cleared in the power exchanges due to congestion was 19.32% and 6.99% of the unconstrained cleared volume in IEX and PXIL, respectively. In terms of time, congestion occurred was 100.00% in IEX and 54.07% in PXIL.
- The market clearing volume of Solar RECs transacted on IEX and PXIL were 7211 and 3808 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 361842 and 296885 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), MARCH 2014				
Sr.No	Short-term transactions	Volume (MUs)	% to Volume of short-term transactions	% to Total Generation
1	Bilateral	4284.55	52.88%	5.06%
	(i) Through Traders and PXs	3638.22	44.90%	4.30%
	(ii) Direct	646.33	7.98%	0.76%
2	Through Power Exchanges	2356.78	29.09%	2.78%
	(i) IEX	2281.78	28.16%	2.70%
	(ii) PXIL	75.00	0.93%	0.09%
3	Through UI	1461.03	18.03%	1.73%
	Total	8102.36	100.00%	9.57%
	Total Generation	84637.38	—	—

Source: NLDC

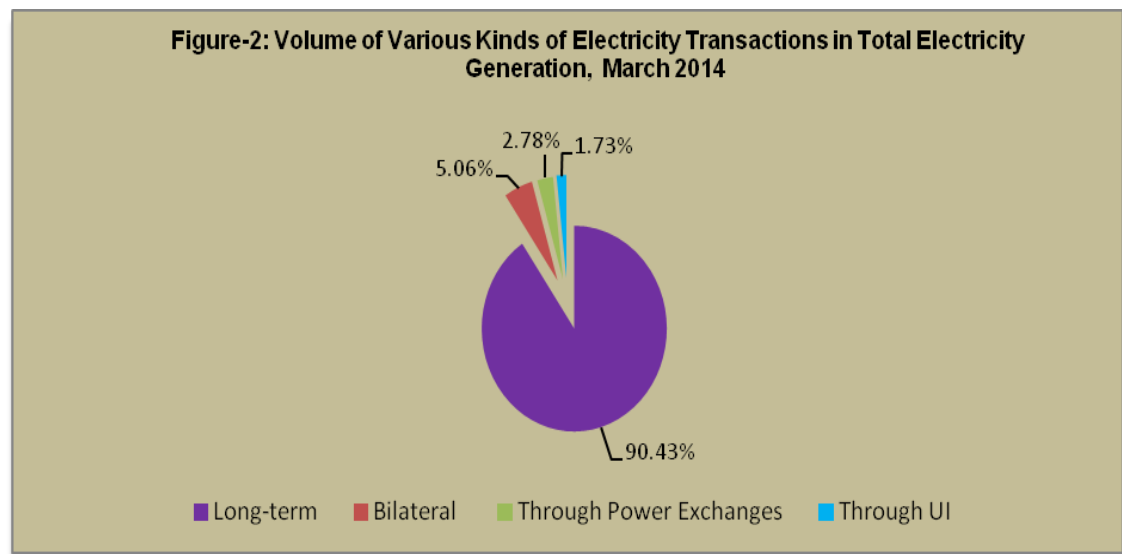
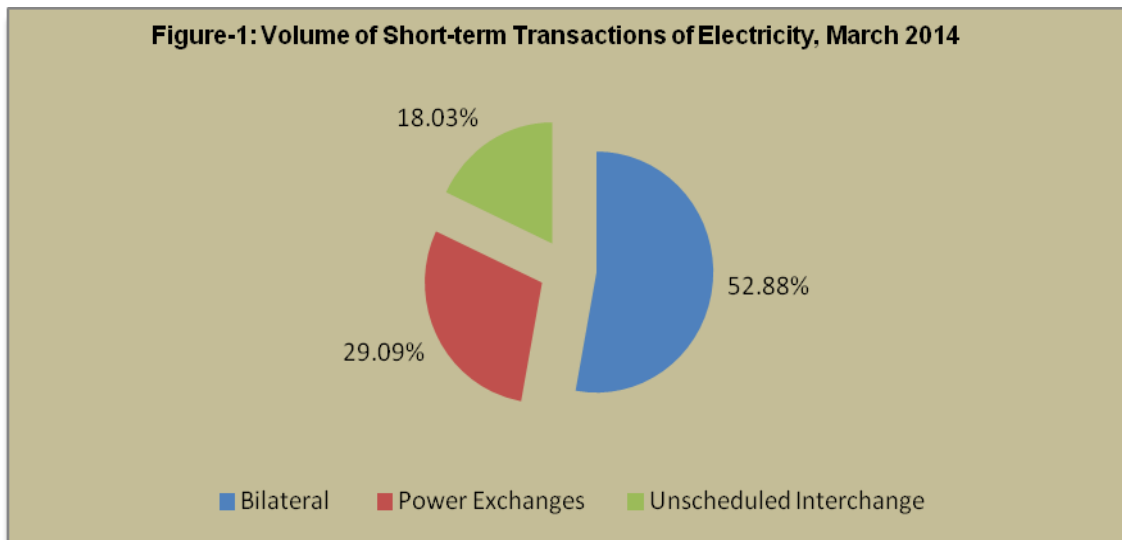


Figure-3: Volume of Short-term Transactions of Electricity, March 2014 (Day-wise)

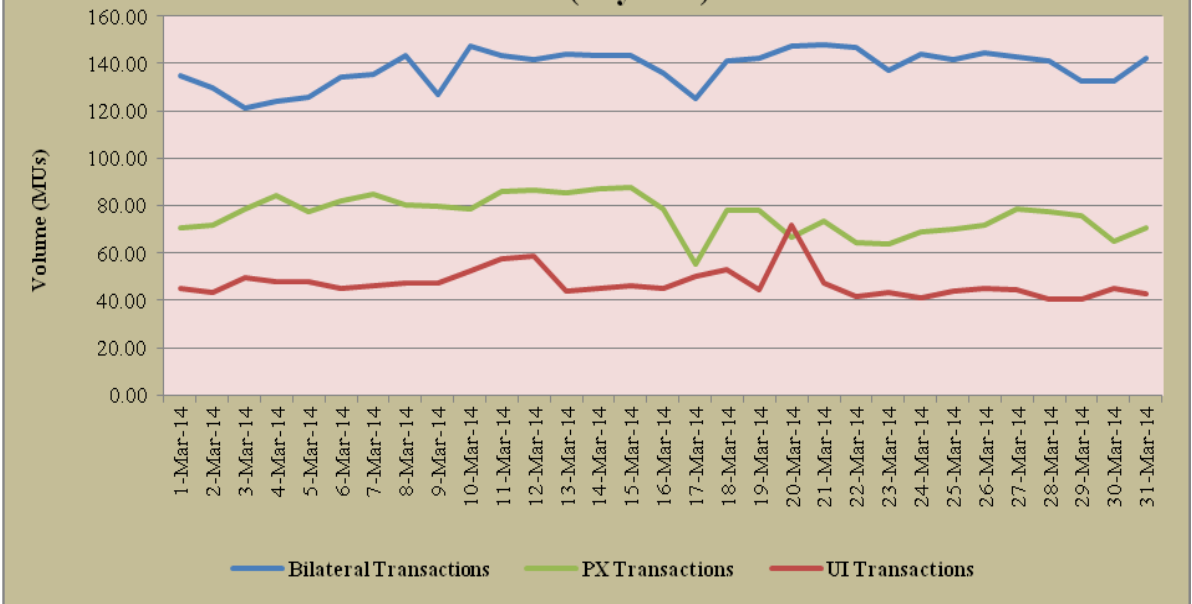


Table-2: PERCENTAGE SHARE OF ELECTRICITY TRANSACTED BY TRADING LICENSEES, MARCH 2014			
Sr.No	Name of the Trading Licensee	% Share in total Volume transacted by Trading Licensees	Herfindahl-Hirschman Index
1	PTC India Ltd.	32.42%	0.1051
2	JSW Power Trading Company Ltd	12.13%	0.0147
3	Tata Power Trading Company (P) Ltd.	11.35%	0.0129
4	Mittal Processors (P) Ltd.	9.52%	0.0091
5	Reliance Energy Trading (P) Ltd	7.18%	0.0052
6	NTPC Vidyut Vyapar Nigam Ltd.	6.69%	0.0045
7	Adani Enterprises Ltd.	5.56%	0.0031
8	GMR Energy Trading Ltd.	3.30%	0.0011
9	Shree Cement Ltd.	3.02%	0.0009
10	Knowledge Infrastructure Systems (P) Ltd	2.36%	0.0006
11	Manikaran Power Ltd.	2.33%	0.0005
12	National Energy Trading & Services Ltd.	1.49%	0.0002
13	RPG Power Trading Company Ltd.	0.78%	0.0001
14	Instinct Infra & Power Ltd.	0.71%	0.0000
15	Jaiprakash Associates Ltd.	0.42%	0.0000
16	Arunachal Pradesh Power Corporation (P) ltd	0.33%	0.0000
17	Pune Power Development (P) Ltd.	0.14%	0.0000
18	Indrajit Power Technology (P) Ltd.	0.13%	0.0000
19	Customized Energy Solutions India (P) Ltd.	0.08%	0.0000
20	Essar Electric Power Development Corp. Ltd.	0.04%	0.0000
21	My Home Power Private Ltd.	0.02%	0.0000
TOTAL		100.00%	0.1579
Top 5 trading licensees		72.60%	
<i>Note 1: Volume of electricity transacted by the trading licensees includes bilateral transactions (inter-state & intra-state) and the transactions undertaken through power exchanges.</i>			
<i>Note 2: Volume of electricity transacted by Global Energy Ltd is not included.</i>			
<i>Source: Information submitted by trading licensees</i>			

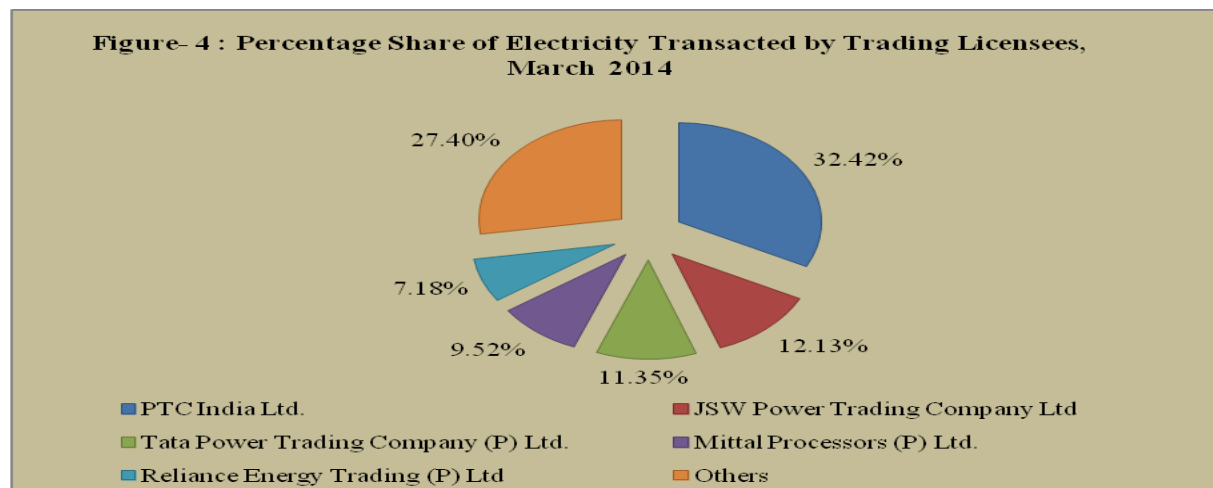


Table-3: PRICE OF ELECTRICITY TRANSACTED THROUGH TRADERS, MARCH 2014		
Sr.No		Sale Price of Traders (₹/kWh)
1	Minimum	2.55
2	Maximum	7.24
3	Weighted Average	4.41

Source: Information submitted by trading licensees

Table-4: PRICE OF ELECTRICITY TRANSACTED THROUGH TRADERS (TIME-WISE), MARCH 2014		
Sr.No	Period of Trade	Sale Price of Traders (₹/kWh)
1	RTC	4.47
2	PEAK	3.62
3	OFF PEAK	3.51

Source: Information submitted by trading licensees

Table-5: PRICE OF ELECTRICITY TRANSACTED THROUGH POWER EXCHANGES, MARCH 2014			
Sr.No	ACP	Price in IEX (₹/kWh)	Price in PXIL (₹/kWh)
1	Minimum	0.50	1.00
2	Maximum	10.00	9.39
3	Weighted Average	2.86	2.76

Source: Information submitted by IEX and PXIL

Table-6: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF IEX, MARCH 2014			
Sr.No	Term ahead contracts	Actual Scheduled Volume (MUs)	Weighted Average Price (₹/kWh)
1	Intra-Day Contracts	4.92	3.41
2	Day Ahead Contingency Contracts	11.51	3.36
	Total	16.43	3.38

Source: IEX

Table-7: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF PXIL, MARCH 2014			
Sr.No	Term ahead contracts	Actual Scheduled Volume (MUs)	Weighted Average Price (₹/kWh)
1	Intra-Day Contracts	4.40	3.37
2	Daily Contracts	0.90	2.00
	Total	5.30	3.13

Source: PXIL

Table-8: PRICE OF ELECTRICITY TRANSACTED THROUGH UI, MARCH 2014		
Sr.No		Price in All India Grid (₹/kWh)
1	Minimum	0.00
2	Maximum	8.24
3	Average	1.69

Source: NLDC

Figure-5: Price of Short-term Transactions of Electricity, March 2014

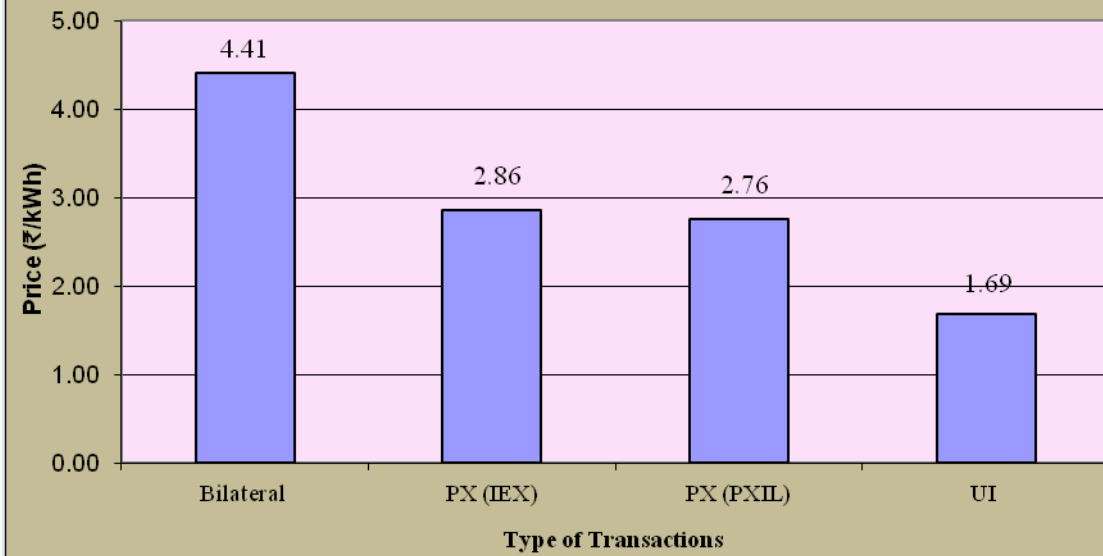


Figure-6: Price of Short-term Transactions of Electricity, March 2014 (Day-wise)

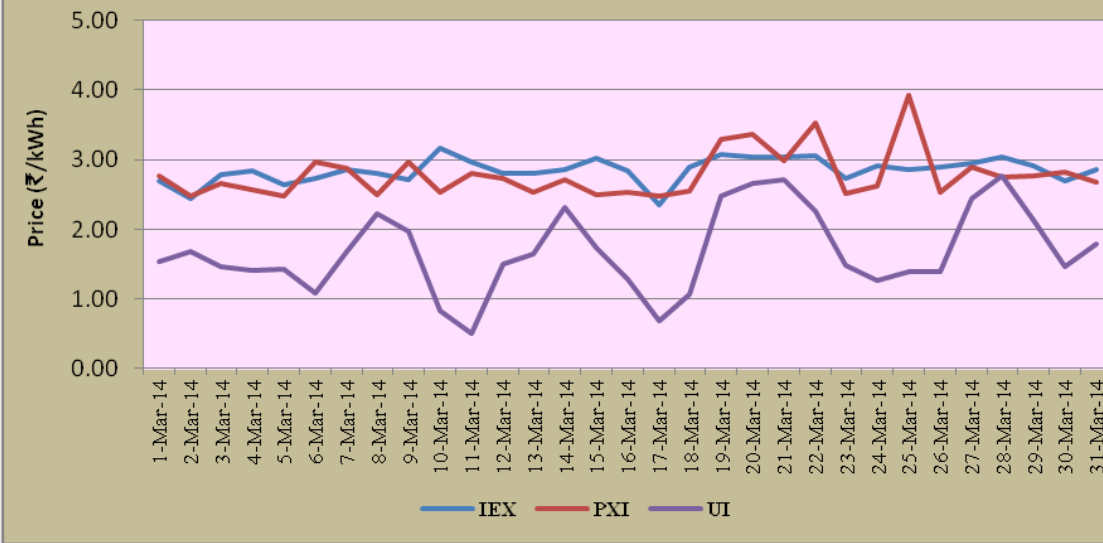


Table-9: VOLUME OF ELECTRICITY SALE THROUGH BILATERAL, MARCH 2014		
Name of the State/UT/Other Regional Entity	Volume of Sale (MUs)	% of Volume
Karnataka	521.97	13.06%
Delhi	486.78	12.18%
JINDAL POWER	356.00	8.91%
Gujarat	300.29	7.51%
STERLITE	288.80	7.23%
Kerala	288.71	7.22%
Punjab	244.61	6.12%
SIMHAPURI	231.41	5.79%
West Bengal	211.96	5.30%
Haryana	199.76	5.00%
Rajasthan	164.87	4.12%
SHREE CEMENT	156.96	3.93%
DVC	135.14	3.38%
MAITHON	99.66	2.49%
Uttar Pradesh	80.09	2.00%
KARCHAM WANGTOO	77.75	1.95%
Chattisgarh	46.83	1.17%
J & K	22.13	0.55%
ACBIL	20.00	0.50%
MP	18.09	0.45%
Andhra Pradesh	14.31	0.36%
Orissa	7.93	0.20%
Assam	7.20	0.18%
Tripura	6.12	0.15%
Jharkhand	5.75	0.14%
Uttarakhand	1.84	0.05%
DCPP	1.29	0.03%
Himachal Pradesh	0.75	0.02%
Total	3997.00	100.00%
Volume of sale by top 5 States	1953.85	48.88%

Table-10: VOLUME OF ELECTRICITY PURCHASE THROUGH BILATERAL, MARCH 2014		
Name of the State/UT/Other Regional Entity	Volume of Purchase (MUs)	% of Volume
Andhra Pradesh	798.98	19.57%
Rajasthan	538.09	13.18%
Uttar Pradesh	518.73	12.70%
West Bengal	370.68	9.08%
Tamilnadu	296.64	7.27%
Kerala	207.02	5.07%
Uttarakhand	199.90	4.90%
J & K	161.64	3.96%
Himachal Pradesh	157.93	3.87%
Jharkhand	155.43	3.81%
Bihar	115.69	2.83%
Maharashtra	90.23	2.21%
DVC	89.85	2.20%
Dadra & Nagar Haveli	80.35	1.97%
Assam	74.32	1.82%
Gujarat	65.42	1.60%
Orissa	40.31	0.99%
Meghalaya	36.21	0.89%
MP	34.18	0.84%
Haryana	21.09	0.52%
Chattisgarh	14.16	0.35%
Nagaland	10.62	0.26%
Sikkim	2.19	0.05%
Punjab	1.56	0.04%
Meenakshi	0.99	0.02%
Tripura	0.67	0.02%
Mizoram	0.20	0.00%
Total	4083.09	100.00%
Volume of Purchase by top 5 States	2523.11	61.79%

Table-11: VOLUME OF ELECTRICITY SALE THROUGH POWER EXCHANGES, MARCH 2014		
Name of the State/UT/Other Regional Entity	Volume of Sale (MUs)	% of Volume
MP	409.18	17.36%
Gujarat	363.29	15.41%
Orissa	198.36	8.42%
Delhi	181.00	7.68%
Chattisgarh	125.49	5.32%
Maharashtra	112.40	4.77%
Haryana	98.95	4.20%
JINDAL POWER	91.51	3.88%
Karnataka	86.89	3.69%
Himachal Pradesh	75.43	3.20%
Rajasthan	65.84	2.79%
Tripura	48.60	2.06%
Punjab	47.08	2.00%
JINDAL STAGE-II	46.76	1.98%
DCPP	45.40	1.93%
West Bengal	40.48	1.72%
KARCHAM WANGTOO	37.72	1.60%
DVC	29.38	1.25%
Andhra Pradesh	29.36	1.25%
NEEPCO Stations	24.95	1.06%
STERLITE	23.58	1.00%
BALCO	23.11	0.98%
ONGC PALATANA	22.90	0.97%
SHREE CEMENT	22.81	0.97%
EMCO	14.44	0.61%
AD HYDRO	10.68	0.45%
ACBIL	9.54	0.40%
CHUZACHEN HEP	9.54	0.40%
LANCO BUDHIL	7.94	0.34%
MAITHON	7.92	0.34%
SIMHAPURI	7.01	0.30%
Assam	5.72	0.24%
Sikkim	5.49	0.23%
NJPC	5.35	0.23%
J & K	4.62	0.20%
GMR KAMALANGA	4.00	0.17%
RANGANADI HEP	3.68	0.16%
Uttarakhand	3.54	0.15%
Meghalaya	2.81	0.12%
ADHUNIK	2.69	0.11%
Mizoram	0.74	0.03%
DOYANG HEP	0.49	0.02%
MALANA	0.11	0.00%
Total	2356.78	100.00%
Volume of sale by top 5 States	1277.33	54.20%

Table-12: VOLUME OF ELECTRICITY PURCHASE THROUGH POWER EXCHANGES, MARCH 2014		
Name of the State/UT/Other Regional Entity	Volume of Purchase (MUs)	% of Volume
Gujarat	722.60	30.66%
Rajasthan	265.43	11.26%
Maharashtra	221.32	9.39%
Haryana	212.70	9.02%
ESSAR STEEL	202.46	8.59%
Andhra Pradesh	196.76	8.35%
Uttarakhand	107.37	4.56%
Punjab	93.10	3.95%
West Bengal	71.58	3.04%
J & K	55.54	2.36%
MP	40.33	1.71%
Bihar	33.24	1.41%
Daman and Diu	31.46	1.33%
Karnataka	19.88	0.84%
Assam	19.42	0.82%
Uttar Pradesh	17.03	0.72%
Himachal Pradesh	13.85	0.59%
Meghalaya	11.58	0.49%
Arunachal Pradesh	11.07	0.47%
Orissa	5.46	0.23%
Chattisgarh	3.52	0.15%
Delhi	0.74	0.03%
Tripura	0.35	0.02%
Total	2356.78	100.00%
Volume of purchase by top 5 States	1624.51	68.93%

Table-13: VOLUME OF ELECTRICITY EXPORT THROUGH UI, MARCH 2014		
Name of the State/UT/Other Regional Entity	Volume of Export (MUs)	% of Volume
Maharashtra	119.94	11.00%
Uttar Pradesh	115.18	10.57%
Gujarat	81.55	7.48%
Rajasthan	80.35	7.37%
Tamilnadu	70.74	6.49%
Punjab	47.56	4.36%
J & K	46.60	4.28%
KARCHAM WANGTOO	46.60	4.28%
Haryana	44.52	4.08%
Delhi	40.62	3.73%
DVC	36.95	3.39%
Andhra Pradesh	28.17	2.58%
Chattisgarh	26.78	2.46%
MP	26.16	2.40%
JINDAL POWER	25.59	2.35%
NHPC Stations	24.85	2.28%
Jharkhand	24.41	2.24%
Bihar	21.87	2.01%
Karnataka	17.72	1.63%
Orissa	15.80	1.45%
Goa	15.79	1.45%
CGPL	15.42	1.41%
Assam	12.68	1.16%
Uttarakhand	12.68	1.16%
Himachal Pradesh	11.03	1.01%
West Bengal	10.79	0.99%
Sikkim	9.82	0.90%
NSPCL	6.03	0.55%
NJPC	5.87	0.54%
UT Chandigarh	5.59	0.51%
Pondicherry	4.82	0.44%
Manipur	4.80	0.44%
MAITHON	4.33	0.40%
NEEPCO Stations	4.08	0.37%
Dadra & Nagar Haveli	3.70	0.34%
Kerala	2.98	0.27%
Nagaland	2.49	0.23%
LANKO_AMK	2.18	0.20%
SIMHAPURI	2.01	0.18%
ACBIL	1.69	0.16%
DCPP	1.50	0.14%
STERLITE	1.36	0.12%
SHREE CEMENT	1.30	0.12%
BALCO	1.21	0.11%
Meghalaya	1.09	0.10%
Tripura	0.84	0.08%
Daman and Diu	0.57	0.05%
Arunachal Pradesh	0.54	0.05%
Mizoram	0.50	0.05%
AD HYDRO	0.39	0.04%
Total	1090.02	100.00%
Volume of Export by top 5 States	467.76	42.91%

Table-14: VOLUME OF ELECTRICITY IMPORT THROUGH UI, MARCH 2014		
Name of the State/UT/Other Regional Entity	Volume of Import (MUs)	% of Volume
Haryana	135.39	10.67%
Uttar Pradesh	96.04	7.57%
West Bengal	83.93	6.61%
Maharashtra	63.97	5.04%
Andhra Pradesh	56.73	4.47%
Chattisgarh	55.89	4.40%
Kerala	51.52	4.06%
Punjab	51.47	4.05%
J & K	46.30	3.65%
KARCHAM WANGTOO	46.30	3.65%
MP	43.73	3.44%
Rajasthan	38.56	3.04%
Orissa	35.90	2.83%
Bihar	34.75	2.74%
Uttarakhand	34.22	2.70%
Gujarat	34.20	2.69%
Karnataka	33.68	2.65%
Delhi	23.60	1.86%
CGPL	20.52	1.62%
Himachal Pradesh	19.05	1.50%
DVC	18.60	1.47%
Goa	16.55	1.30%
Assam	15.98	1.26%
SIMHAPURI	15.89	1.25%
STERLITE	15.32	1.21%
Arunachal Pradesh	14.76	1.16%
Meghalaya	14.25	1.12%
Jharkhand	14.02	1.10%
Tripura	13.61	1.07%
Tamilnadu	12.48	0.98%
Daman and Diu	11.91	0.94%
RGPPL(Dabhol)	11.87	0.93%
NHPC Stations	11.05	0.87%
ACBIL	10.87	0.86%
Dadra & Nagar Haveli	10.83	0.85%
UT Chandigarh	7.45	0.59%
Manipur	6.99	0.55%
JINDAL POWER	6.71	0.53%
Mizoram	4.89	0.39%
Nagaland	4.70	0.37%
Pondicherry	4.64	0.37%
DCPP	3.36	0.26%
NEEPCO Stations	3.00	0.24%
NJPC	2.82	0.22%
BALCO	2.72	0.21%
MAITHON	2.71	0.21%
SHREE CEMENT	2.65	0.21%
LANKO_AMK	1.01	0.08%
NSPCL	0.94	0.07%
Sikkim	0.79	0.06%
AD HYDRO	0.31	0.02%
Total	1269.42	100.00%
Volume of Import by top 5 States	436.06	34.35%

Table-15: TOTAL VOLUME OF NET SHORT-TERM TRANSACTIONS OF ELECTRICITY (REGIONAL ENTITY-WISE), MARCH 2014

Sr.No.	Name of the State/UT/Other Regional Entity	Total volume of net short-term transactions of electricity*
1	Andhra Pradesh	980.62
2	Rajasthan	531.02
3	Uttar Pradesh	436.52
4	Uttarakhand	323.43
5	West Bengal	262.96
6	Tamilnadu	238.38
7	ESSAR STEEL	202.46
8	J & K	190.13
9	Bihar	161.82
10	Maharashtra	143.16
11	Jharkhand	139.30
12	Himachal Pradesh	103.62
13	Dadra & Nagar Haveli	87.48
14	Assam	84.13
15	Gujarat	77.08
16	Meghalaya	58.13
17	Daman and Diu	42.80
18	Haryana	25.95
19	Arunachal Pradesh	25.29
20	Nagaland	12.83
21	RGPPL(Dabhol)	11.87
22	CGPL	5.10
23	Mizoram	3.85
24	Manipur	2.20
25	UT Chandigarh	1.87
26	Meenakshi	0.99
27	Goa	0.76
28	MALANA	-0.11
29	Pondicherry	-0.18
30	DOYANG HEP	-0.49
31	LANKO_AMK	-1.17
32	ADHUNIK	-2.69
33	RANGANADI HEP	-3.68
34	GMR KAMALANGA	-4.00
35	NSPCL	-5.08
36	LANCO BUDHIL	-7.94
37	NJPC	-8.40
38	CHUZACHEN HEP	-9.54
39	AD HYDRO	-10.76
40	Sikkim	-12.33
41	NHPC Stations	-13.80
42	EMCO	-14.44
43	ACBIL	-20.36
44	BALCO	-21.60
45	ONGC PALATANA	-22.90
46	NEEPCO Stations	-26.03
47	Kerala	-33.15
48	Tripura	-40.92
49	DCPP	-44.84
50	JINDAL STAGE-II	-46.76
51	DVC	-93.01
52	MAITHON	-109.20
53	KARCHAM WANGTOO	-115.77
54	Chattisgarh	-125.54
55	Orissa	-140.42
56	SHREE CEMENT	-178.43
57	Punjab	-193.10
58	SIMHAPURI	-224.55
59	STERLITE	-298.42
60	MP	-335.19
61	JINDAL POWER	-466.39
62	Karnataka	-573.03
63	Delhi	-684.06

* 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

Table-16: DETAILS OF CONGESTION IN POWER EXCHANGES, MARCH 2014			
	Details of Congestion	IEX	PXIL
A	Unconstrained Cleared Volume* (MUs)	2828.23	80.63
B	Actual Cleared Volume and hence scheduled (MUs)	2281.78	75.00
C	Volume of electricity that could not be cleared and hence not scheduled because of congestion (MUs) (A-B)	546.45	5.63
D	Volume of electricity that could not be cleared as % to Unconstrained Cleared Volume	19.32%	6.99%
E	Percentage of the time congestion occurred during the month (Number of hours congestion occurred/Total number of hours in the month)	100.00%	54.07%
F	Congestion occurrence (%) time block wise		
	0.00 - 6.00 hours	25.00%	19.70%
	6.00 - 12.00 hours	25.00%	27.10%
	12.00 - 18.00 hours	25.00%	28.53%
	18.00 - 24.00 hours	25.00%	24.67%
<i>* This power would have been scheduled had there been no congestion.</i>			
<i>Source: IEX & PXIL</i>			

Table-17: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY IN INDIA (MUs), MARCH 2014 (DAY-WISE)						
Date	Bilateral		Power Exchange (Area Clearing Volume# of Day Ahead Market)		Unscheduled Interchange (Over Draw+ Under Generation)	Total Electricity Generation (MU) as given at CEA Website*
	Through Traders and PXs**	Direct	IEX	PXI		
1-Mar-14	108.16	26.70	67.24	3.27	44.82	2652.40
2-Mar-14	104.60	25.32	68.43	3.18	43.38	2528.65
3-Mar-14	97.09	24.22	75.84	2.92	49.79	2599.11
4-Mar-14	97.81	26.42	81.40	2.79	47.77	2583.46
5-Mar-14	99.01	26.82	74.70	2.79	47.85	2614.00
6-Mar-14	108.22	26.29	78.74	2.96	45.08	2632.72
7-Mar-14	110.66	24.95	82.19	2.78	46.15	2645.94
8-Mar-14	116.31	26.98	78.27	2.13	47.25	2615.78
9-Mar-14	104.62	22.03	76.96	2.65	47.21	2560.32
10-Mar-14	120.69	26.85	75.51	2.80	52.36	2583.95
11-Mar-14	121.07	22.05	83.83	2.41	57.31	2589.32
12-Mar-14	119.76	22.01	83.86	2.79	58.94	2621.49
13-Mar-14	122.22	21.99	82.81	2.85	43.76	2673.38
14-Mar-14	121.58	22.00	84.19	2.82	45.00	2735.47
15-Mar-14	122.50	20.68	84.74	2.89	45.95	2777.46
16-Mar-14	117.67	18.06	75.77	2.58	45.14	2674.34
17-Mar-14	107.59	17.73	53.49	1.82	50.24	2581.58
18-Mar-14	124.59	16.74	76.33	1.85	52.91	2635.12
19-Mar-14	125.15	17.33	75.50	2.61	44.33	2794.01
20-Mar-14	127.39	19.74	65.39	1.50	71.81	2790.64
21-Mar-14	128.91	19.16	70.61	2.77	47.27	2780.99
22-Mar-14	126.61	19.91	62.55	2.05	41.45	2831.43
23-Mar-14	117.96	19.08	61.85	2.00	43.06	2775.85
24-Mar-14	126.79	17.23	67.10	1.97	40.81	2742.23
25-Mar-14	124.36	17.51	68.42	1.44	43.73	2791.94
26-Mar-14	127.75	16.88	70.13	1.82	44.97	2842.90
27-Mar-14	126.16	16.49	76.10	2.19	44.23	2863.61
28-Mar-14	124.48	16.55	74.92	2.41	40.24	2879.00
29-Mar-14	116.44	16.20	73.21	2.25	40.63	2859.76
30-Mar-14	116.96	15.46	63.52	1.39	44.93	2793.45
31-Mar-14	125.07	16.97	68.20	2.32	42.65	2853.04
Total	3638.22	646.33	2281.78	75.00	1461.03	84637.38

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), MARCH 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*	All India Grid	
Minimum Price								Maximum Price	Average Price**
1-Mar-14	1.50	5.21	2.70	1.64	4.50	2.76	0.00	6.16	1.53
2-Mar-14	1.50	5.21	2.45	1.50	3.40	2.48	0.00	5.32	1.69
3-Mar-14	1.50	5.21	2.78	1.25	4.25	2.66	0.00	5.95	1.46
4-Mar-14	1.50	5.21	2.84	1.51	3.70	2.56	0.00	6.16	1.42
5-Mar-14	1.50	5.00	2.65	1.25	9.39	2.48	0.00	3.45	1.43
6-Mar-14	1.48	4.50	2.74	1.25	4.10	2.96	0.00	5.74	1.08
7-Mar-14	1.50	5.20	2.85	1.25	4.50	2.87	0.00	7.20	1.68
8-Mar-14	1.48	5.00	2.81	1.48	5.00	2.50	0.00	6.36	2.22
9-Mar-14	1.61	4.70	2.71	1.44	3.75	2.96	0.00	5.95	1.98
10-Mar-14	1.90	5.08	3.17	1.25	3.75	2.54	0.00	3.24	0.82
11-Mar-14	1.80	5.01	2.96	1.87	4.50	2.80	0.00	3.24	0.50
12-Mar-14	1.70	4.95	2.81	1.50	4.10	2.74	0.00	8.24	1.51
13-Mar-14	1.60	5.65	2.81	1.00	4.10	2.54	0.00	5.32	1.64
14-Mar-14	1.60	6.00	2.85	1.64	3.75	2.72	0.00	6.16	2.32
15-Mar-14	1.60	5.82	3.02	1.25	3.25	2.50	0.00	5.32	1.74
16-Mar-14	1.60	5.51	2.84	1.68	4.20	2.54	0.00	5.74	1.28
17-Mar-14	1.04	5.51	2.35	1.69	4.78	2.47	0.00	3.03	0.68
18-Mar-14	1.70	5.51	2.90	1.00	3.80	2.55	0.00	5.32	1.06
19-Mar-14	2.00	5.51	3.07	3.10	3.80	3.30	0.00	5.74	2.47
20-Mar-14	2.00	5.51	3.05	3.25	4.10	3.37	0.00	6.36	2.66
21-Mar-14	2.00	5.51	3.05	2.90	3.25	2.99	0.00	5.95	2.72
22-Mar-14	2.00	5.81	3.05	2.75	5.00	3.52	0.00	7.82	2.27
23-Mar-14	2.00	5.81	2.74	2.50	2.75	2.51	0.00	5.95	1.49
24-Mar-14	1.77	5.81	2.92	2.00	3.25	2.62	0.00	5.32	1.27
25-Mar-14	0.50	5.81	2.86	3.40	5.00	3.93	0.00	4.91	1.40
26-Mar-14	0.50	5.86	2.90	1.75	3.80	2.54	0.00	5.74	1.39
27-Mar-14	1.90	6.01	2.95	2.00	3.40	2.89	0.00	6.36	2.44
28-Mar-14	2.36	10.00	3.05	2.00	3.25	2.75	0.00	6.36	2.77
29-Mar-14	2.25	6.11	2.91	2.00	3.25	2.76	0.00	6.36	2.14
30-Mar-14	2.20	6.01	2.70	2.00	3.25	2.83	0.00	6.16	1.47
31-Mar-14	1.84	6.01	2.85	2.00	3.26	2.67	0.00	5.74	1.79
	0.50#	10.00#	2.86	1.00#	9.39#	2.76	0.00#	8.24#	1.69

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), MARCH 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	244.61	1.56	-243.05	47.08	93.10	46.03	47.56	51.47	3.92	-193.10
Haryana	199.76	21.09	-178.67	98.95	212.70	113.75	44.52	135.39	90.87	25.95
Rajasthan	164.87	538.09	373.22	65.84	265.43	199.59	80.35	38.56	-41.79	531.02
Delhi	486.78	0.00	-486.78	181.00	0.74	-180.27	40.62	23.60	-17.02	-684.06
Uttar Pradesh	80.09	518.73	438.63	0.00	17.03	17.03	115.18	96.04	-19.14	436.52
Uttarakhand	1.84	199.90	198.06	3.54	107.37	103.83	12.68	34.22	21.54	323.43
Himachal Pradesh	0.75	157.93	157.18	75.43	13.85	-61.58	11.03	19.05	8.02	103.62
J & K	22.13	161.64	139.51	4.62	55.54	50.92	46.60	46.30	-0.30	190.13
UT Chandigarh	0.00	0.00	0.00	0.00	0.00	0.00	5.59	7.45	1.87	1.87
MP	18.09	34.18	16.10	409.18	40.33	-368.85	26.16	43.73	17.57	-335.19
Maharashtra	0.00	90.23	90.23	112.40	221.32	108.92	119.94	63.97	-55.98	143.16
Gujarat	300.29	65.42	-234.87	363.29	722.60	359.31	81.55	34.20	-47.35	77.08
Chattisgarh	46.83	14.16	-32.67	125.49	3.52	-121.98	26.78	55.89	29.11	-125.54
Daman and Diu	0.00	0.00	0.00	0.00	31.46	31.46	0.57	11.91	11.34	42.80
Dadra & Nagar Haveli	0.00	80.35	80.35	0.00	0.00	0.00	3.70	10.83	7.13	87.48
Andhra Pradesh	14.31	798.98	784.67	29.36	196.76	167.39	28.17	56.73	28.56	980.62
Karnataka	521.97	0.00	-521.97	86.89	19.88	-67.01	17.72	33.68	15.96	-573.03
Kerala	288.71	207.02	-81.69	0.00	0.00	0.00	2.98	51.52	48.54	-33.15
Tamilnadu	0.00	296.64	296.64	0.00	0.00	0.00	70.74	12.48	-58.26	238.38
Pondicherry	0.00	0.00	0.00	0.00	0.00	0.00	4.82	4.64	-0.18	-0.18
West Bengal	211.96	370.68	158.72	40.48	71.58	31.10	10.79	83.93	73.14	262.96
Orissa	7.93	40.31	32.38	198.36	5.46	-192.90	15.80	35.90	20.10	-140.42
Bihar	0.00	115.69	115.69	0.00	33.24	33.24	21.87	34.75	12.89	161.82
Jharkhand	5.75	155.43	149.68	0.00	0.00	0.00	24.41	14.02	-10.39	139.30
Sikkim	0.00	2.19	2.19	5.49	0.00	-5.49	9.82	0.79	-9.03	-12.33
DVC	135.14	89.85	-45.29	29.38	0.00	-29.38	36.95	18.60	-18.35	-93.01
Arunachal Pradesh	0.00	0.00	0.00	0.00	11.07	11.07	0.54	14.76	14.23	25.29
Assam	7.20	74.32	67.12	5.72	19.42	13.70	12.68	15.98	3.30	84.13
Manipur	0.00	0.00	0.00	0.00	0.00	0.00	4.80	6.99	2.20	2.20
Meghalaya	0.00	36.21	36.21	2.81	11.58	8.76	1.09	14.25	13.15	58.13
Mizoram	0.00	0.20	0.20	0.74	0.00	-0.74	0.50	4.89	4.39	3.85
Nagaland	0.00	10.62	10.62	0.00	0.00	0.00	2.49	4.70	2.21	12.83
Tripura	6.12	0.67	-5.45	48.60	0.35	-48.24	0.84	13.61	12.77	-40.92
Goa	0.00	0.00	0.00	0.00	0.00	0.00	15.79	16.55	0.76	0.76
NHPC Stations	0.00	0.00	0.00	0.00	0.00	0.00	24.85	11.05	-13.80	-13.80
NJPC	0.00	0.00	0.00	5.35	0.00	-5.35	5.87	2.82	-3.05	-8.40
AD HYDRO	0.00	0.00	0.00	10.68	0.00	-10.68	0.39	0.31	-0.08	-10.76
KARCHAM WANGTOO	77.75	0.00	-77.75	37.72	0.00	-37.72	46.60	46.30	-0.30	-115.77
SHREE CEMENT	156.96	0.00	-156.96	22.81	0.00	-22.81	1.30	2.65	1.35	-178.43
LANCO BUDHIL	0.00	0.00	0.00	7.94	0.00	-7.94	0.00	0.00	0.00	-7.94
MALANA	0.00	0.00	0.00	0.11	0.00	-0.11	0.00	0.00	0.00	-0.11

JINDAL POWER	356.00	0.00	-356.00	91.51	0.00	-91.51	25.59	6.71	-18.88	-466.39
LANKO_AMK	0.00	0.00	0.00	0.00	0.00	0.00	2.18	1.01	-1.17	-1.17
NSPCL	0.00	0.00	0.00	0.00	0.00	0.00	6.03	0.94	-5.08	-5.08
ACBIL	20.00	0.00	-20.00	9.54	0.00	-9.54	1.69	10.87	9.18	-20.36
BALCO	0.00	0.00	0.00	23.11	0.00	-23.11	1.21	2.72	1.51	-21.60
RGPPL(Dabhol)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.87	11.87	11.87
CGPL	0.00	0.00	0.00	0.00	0.00	0.00	15.42	20.52	5.10	5.10
DCPP	1.29	0.00	-1.29	45.40	0.00	-45.40	1.50	3.36	1.85	-44.84
EMCO	0.00	0.00	0.00	14.44	0.00	-14.44	0.00	0.00	0.00	-14.44
ESSAR STEEL	0.00	0.00	0.00	0.00	202.46	202.46	0.00	0.00	0.00	202.46
JINDAL STAGE-II	0.00	0.00	0.00	46.76	0.00	-46.76	0.00	0.00	0.00	-46.76
SIMHAPURI	231.41	0.00	-231.41	7.01	0.00	-7.01	2.01	15.89	13.87	-224.55
Meenakshi	0.00	0.99	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.99
STERLITE	288.80	0.00	-288.80	23.58	0.00	-23.58	1.36	15.32	13.97	-298.42
MAITHON	99.66	0.00	-99.66	7.92	0.00	-7.92	4.33	2.71	-1.62	-109.20
ADHUNIK	0.00	0.00	0.00	2.69	0.00	-2.69	0.00	0.00	0.00	-2.69
CHUZACHEN HEP	0.00	0.00	0.00	9.54	0.00	-9.54	0.00	0.00	0.00	-9.54
GMR KAMALANGA	0.00	0.00	0.00	4.00	0.00	-4.00	0.00	0.00	0.00	-4.00
NEEPCO Stations	0.00	0.00	0.00	24.95	0.00	-24.95	4.08	3.00	-1.08	-26.03
RANGANADI HEP	0.00	0.00	0.00	3.68	0.00	-3.68	0.00	0.00	0.00	-3.68
DOYANG HEP	0.00	0.00	0.00	0.49	0.00	-0.49	0.00	0.00	0.00	-0.49
ONGC PALATANA	0.00	0.00	0.00	22.90	0.00	-22.90	0.00	0.00	0.00	-22.90
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, MARCH 2014					
Sr.No.	Details of REC Transactions	IEX		PXIL	
		Solar	Non Solar	Solar	Non Solar
A	Volume of Buy Bid	7211	361842	3808	296885
B	Volume of Sell Bid	131759	2893896	17757	2583000
C	Ratio of Buy Bid to Sell Bid Volume	0.05	0.13	0.21	0.11
D	Market Clearing Volume (MWh)	7211	361842	3808	296885
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>