



Monthly Report on Short-term Transactions of Electricity in India

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Abbreviations

Abbreviation	Expanded Version
ACBIL	ACB (India) Limited
ACP	Area Clearing Price
ACV	Area Clearing Volume
AD HYDRO	AD Hydro Power Limited
BALCO	Bharat Aluminium Company Limited
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CGPL	Coastal Gujarat Power Limited
CHUZACHEN	Chuzachen hydro electric power project
DCPP	Donga Mahua Captive Power Plant
DVC	Damodar Valley Corporation
EMCO	EMCO Energy Limited
HHI	Herfindahl-Hirschman Index
IEX	Indian Energy Exchange Limited
J&K	Jammu & Kashmir
JINDAL POWER	Jindal Power Limited
KARCHAM WANGTOO	Jaypee Karcham Hydro Corporation Limited
LANCO BUDHIL	Lanco Budhil Hydro Power Private 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 Ltd. Stations
NEW Grid	North, East, North-East and Western Regional Grid
NHPC Stations	National Hydro Electric Power Corporation Ltd. Stations
NJPC	Nathpa Jhakri Hydroelectric Power Station
NLDC	National Load Despatch Centre
NSPCL	NTPC - SAIL Power Company Private Limited
PX	Power Exchange
PXIL	Power Exchange India Limited
RANGANADI HEP	Ranganadi Hydro Electric Project
REC	Renewable Energy Certificate
RGPPL	Ratnagiri Gas and Power Private Limited
RLDC	Regional Load Despatch Centre
RTC	Round - the- Clock
SHREE CEMENT	Shree Cement Limited
SIMHAPURE	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 June, 2013 is as under:

I: Volume of Short-term Transactions of Electricity

During the month of June 2013, total electricity generation excluding generation from renewable and captive power plants in India was 76108.30 MUs (Table-1).

Of the total electricity generation, 8845.33 MUs (11.62%) were transacted through short-term, comprising of 4733.45 MUs (6.22%) through Bilateral (through traders and term-ahead contracts on Power Exchanges and directly between distribution companies), followed by 2167.76 MUs (2.85%) through day ahead collective transactions on Power Exchanges (IEX and PXIL) and 1944.12 MUs (2.55%) through UI (Table-1 & Figure-2).

Of the total short-term transactions, Bilateral constitute 53.51% (37.02% through traders and term-ahead contracts on Power Exchanges and 16.49% directly between distribution companies) followed by 24.51% through day ahead collective transactions on Power Exchanges and 21.98% through UI (Table-1& Figure-1). Daily volume of short-term transactions is shown in Table-17 & Figure-3.

The percentage share of electricity traded by each trading licensee in the total volume of electricity traded by all trading licensees is provided in Table-2 & Figure-4. The trading licensees undertake electricity transactions through bilateral and through power exchanges. Here, the volume of electricity transacted by the trading licensees includes bilateral

transactions and the transactions undertaken through power exchanges. There were 43 trading licensees as on 30.06.2013, of which only 21 have engaged in trading during June 2013. Top 5 trading licensees had a share of 72.70% 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 0.1698 for the month of June 2013, which indicates that there was moderate concentration of market power (Table-2).

The volume of electricity transacted through IEX and PXIL in the day ahead market was 2114.56 MUs and 53.20 MUs respectively. The volume of total Buy bids and Sale bids was 2578.34 MUs and 4191.51 MUs respectively in IEX and 72.79 MUs and 182.26 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 (0.62 times) and PXIL (0.40 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 11.48 MUs and 4.60 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 ₹4.36/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 ₹4.37/kWh, ₹3.98/kWh and ₹4.06/kWh respectively. Minimum and Maximum sale prices were ₹2.96/kWh and ₹6.22/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

₹0.90/kWh, ₹20.00/kWh and ₹2.52/kWh respectively in IEX and ₹0.80/kWh, ₹5.00/kWh and ₹2.15/kWh respectively in PXIL (Table-5).

The price of electricity transacted through IEX and PXIL in the term-ahead market was ₹2.71/kWh and ₹2.60/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 ₹1.64/kWh in the NEW Grid and ₹2.67/kWh in the SR Grid. Minimum and Maximum UI prices were ₹0.00/kWh and ₹10.80/kWh respectively in the New Grid, and ₹0.00/kWh and ₹9.06/kWh respectively in the SR Grid (Table-8).

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

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

Of the total bilateral transactions, top 5 regional entities sold 48.73% of the volume, and these were UT Chandigarh, Sterlite, Himachal Pradesh, Karcham Wangtoo and Jammu & Kashmir. Top 5 regional entities purchased 61.25% of the volume, and these were Punjab, Andhra Pradesh, Haryana, Delhi and Gujarat (Table-9, 10 & 19).

Of the total Power Exchange transactions, top 5 regional entities sold 51.21% of the volume, and these were Karcham Wangtoo, Delhi, Jindal Power, Karnataka and Himachal Pradesh. Top 5 regional entities purchased 73.07% of the volume, and these were Gujarat, Andhra Pradesh, Punjab, Rajasthan and Haryana (Table-11, 12 & 19).

Of the total UI transactions, top 5 regional entities underdrew 44.95% of the volume, and these were Haryana, Rajasthan, Punjab, Delhi and Madhya Pradesh. Top 5 regional entities overdrew 37.78% of the volume, and these were Uttar Pradesh, Gujarat, Maharashtra, West Bengal and Karcham Wangtoo (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 Karcham Wangtoo, Himachal Pradesh, UT Chandigarh, Sterlite Energy Limited and Jindal Power Limited. Top 5 electricity

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.

purchasing regional entities were Punjab, Andhra Pradesh, Gujarat, Haryana and Uttar Pradesh.

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

During the month, the volume of electricity that could not be cleared in the power exchanges due to congestion was 12.60% and 17.12% of the unconstrained cleared volume in IEX and PXIL, respectively. In terms of time, congestion occurred was 96.91% in IEX and 87.85% 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

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.

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 June 2013 are shown in Table-20. The market clearing volume of Solar RECs transacted on IEX and PXIL were 797 and 682 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 36147 and 36339 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 0.28 and 0.22 in IEX and PXIL respectively. For Non-Solar RECs, the ratio of buy and sell bids was 0.03 and 0.04 in IEX and PXIL respectively.

VI: Inferences:

- The percentage of short-term transactions of electricity to total electricity generation was 11.62%.
- Of the total short-term transactions of electricity, 53.51% was transacted through bilateral (through traders and term ahead contracts on power exchanges and directly by distribution companies), followed by 24.51% through Power Exchanges and 21.98% through UI.
- Top 5 trading licensees had a share of 72.70% in the total volume traded by all the trading licensees.
- The Herfindahl Hirschman Index computed for volume of electricity traded by trading licensees was 0.1698, indicating a moderate concentration of market power.
- The price of electricity transacted through trading licensees (₹4.36/kWh) was higher when compared with the price of electricity transacted through IEX (₹2.52/kWh) and PXIL (₹2.15/kWh) respectively.
- The price of electricity transacted through UI was ₹1.64/kWh in the NEW Grid and ₹2.67/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: 0.62) and PXIL (1: 0.40) when compared with the supply offered through these exchanges.
- Top 5 electricity selling regional entities were Karcham Wangtoo, Himachal Pradesh, UT Chandigarh, Sterlite Energy Limited and Jindal Power Limited. Top 5 electricity purchasing regional entities were Punjab, Andhra Pradesh, Gujarat, Haryana and Uttar Pradesh.
- The volume of electricity that could not be cleared in the power exchanges due to congestion was 12.60% and 17.12% of the unconstrained cleared volume in IEX and PXIL, respectively. In terms of time, congestion occurred was 96.91% in IEX and 87.85% in PXIL.
- The market clearing volume of Solar RECs transacted on IEX and PXIL were 797 and 682 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 36147 and 36339 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), JUNE 2013				
Sr.No	Short-term transactions	Volume (MUs)	% to Volume of short-term transactions	% to Total Generation
1	Bilateral	4733.45	53.51%	6.22%
	(i) Through Traders and PXs	3274.56	37.02%	4.30%
	(ii) Direct	1458.89	16.49%	1.92%
2	Through Power Exchanges	2167.76	24.51%	2.85%
	(i) IEX	2114.56	23.91%	2.78%
	(ii) PXIL	53.20	0.60%	0.07%
3	Through UI	1944.12	21.98%	2.55%
	Total	8845.33	100.00%	11.62%
	Total Generation	76108.30	–	–

Source: NLDC

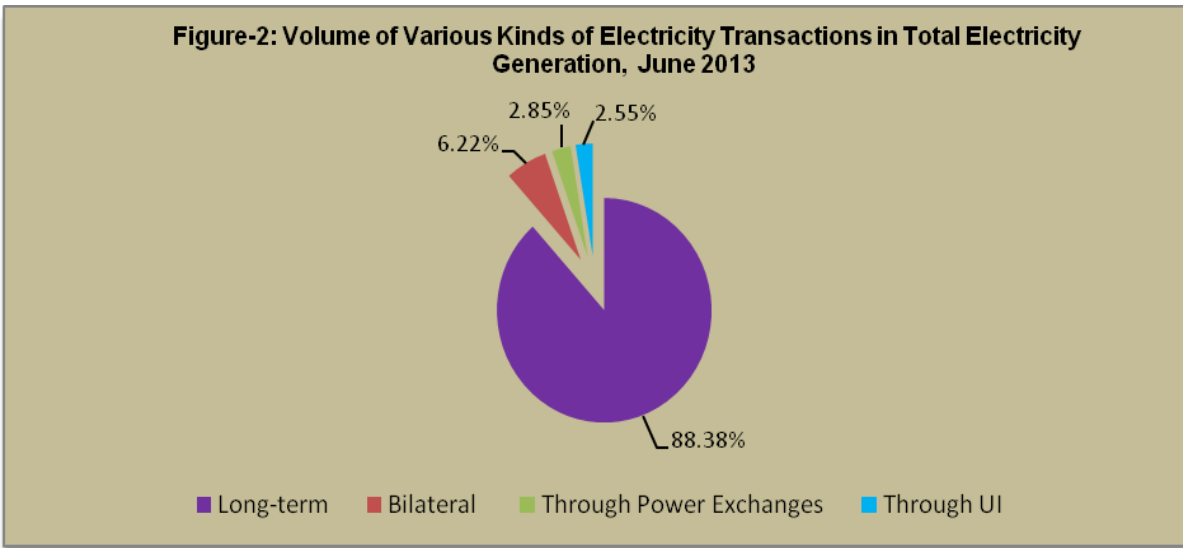
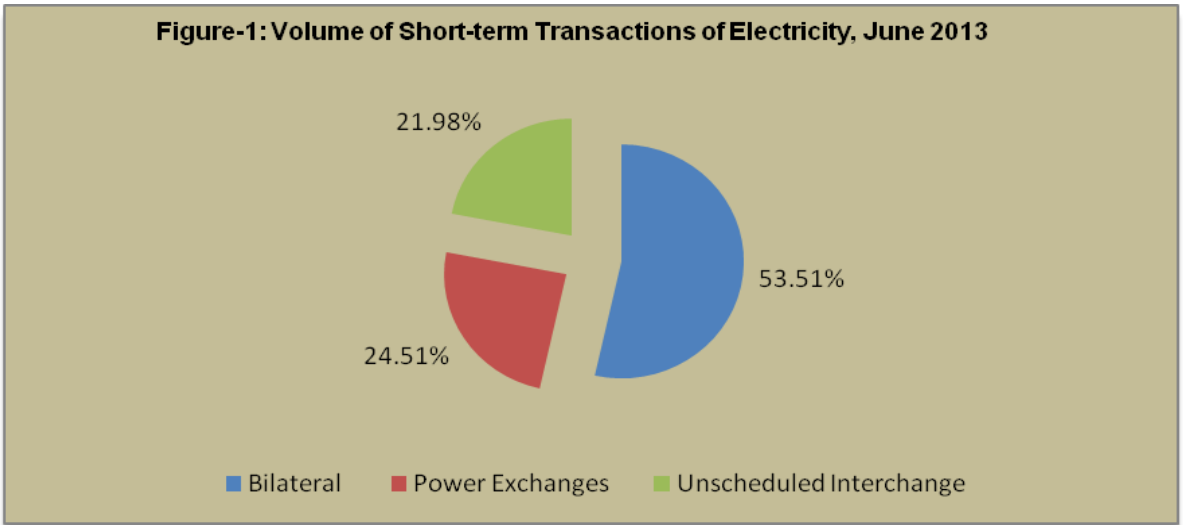


Figure-3: Volume of Short-term Transactions of Electricity, June 2013 (Day-wise)

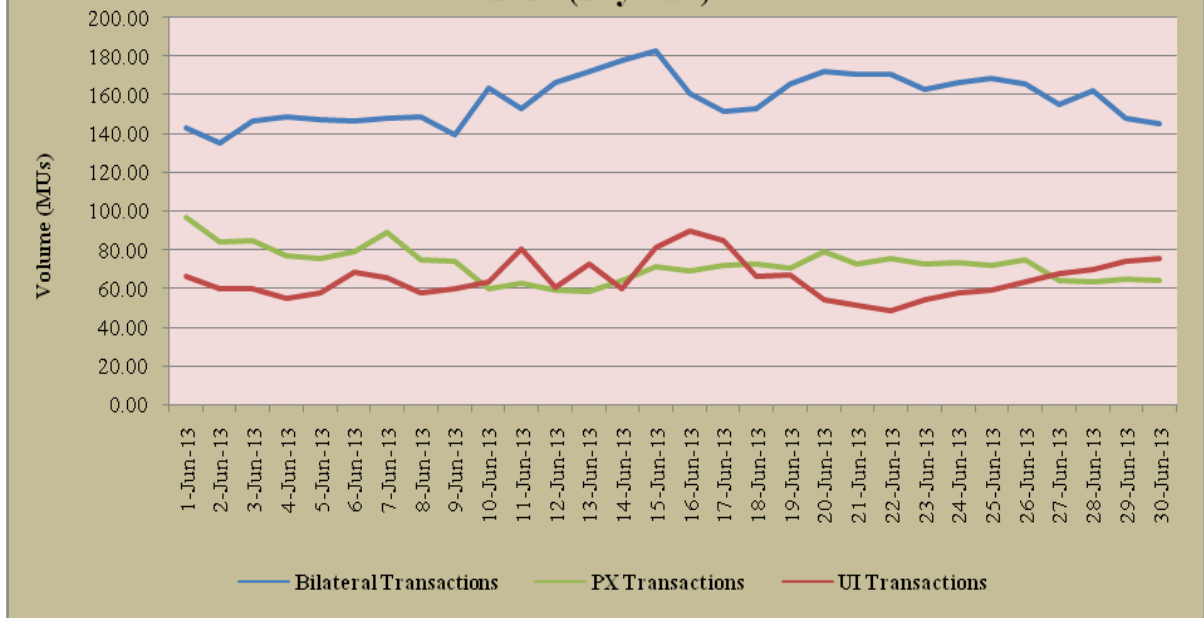
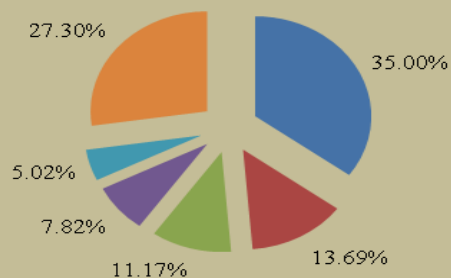


Table-2: PERCENTAGE SHARE OF ELECTRICITY TRANSACTED BY TRADING LICENSEES, JUNE 2013

Sr.No	Name of the Trading Licensee	% Share in total Volume transacted by Trading Licensees	Herfindahl-Hirschman Index
1	PTC India Ltd.	35.00%	0.1225
2	JSW Power Trading Company Ltd	13.69%	0.0187
3	Tata Power Trading Company (P) Ltd.	11.17%	0.0125
4	NTPC Vidyut Vyapar Nigam Ltd.	7.82%	0.0061
5	Reliance Energy Trading (P) Ltd	5.02%	0.0025
6	Jaiprakash Associates Ltd.	3.79%	0.0014
7	Adani Enterprises Ltd.	3.55%	0.0013
8	Mittal Processors (P) Ltd.	3.35%	0.0011
9	GMR Energy Trading Ltd.	3.16%	0.0010
10	Shree Cement Ltd.	2.87%	0.0008
11	National Energy Trading & Services Ltd.	2.39%	0.0006
12	Knowledge Infrastructure Systems (P) Ltd	2.34%	0.0005
13	Essar Electric Power Development Corp. Ltd.	1.61%	0.0003
14	Manikaran Power Ltd.	1.19%	0.0001
15	Instinct Infra & Power Ltd.	1.11%	0.0001
16	RPG Power Trading Company Ltd.	0.86%	0.0001
17	Arunachal Pradesh Power corporation (P) Ltd	0.71%	0.0000
18	Indrajit Power Technology (P) Ltd.	0.12%	0.0000
19	Pune Power Development (P) Ltd.	0.11%	0.0000
20	Customized Energy Solutions India (P) Ltd.	0.08%	0.0000
21	Ambitious Power Trading Company Ltd.	0.07%	0.0000
TOTAL		100.00%	0.1698
Top 5 trading licensees		72.70%	
<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>			

Figure-4: Percentage Share of Electricity Transacted by Trading Licensees, June 2013



■ PTC India Ltd.
 ■ JSW Power Trading Company Ltd
 ■ Tata Power Trading Company (P) Ltd.
 ■ NTPC Vidyut Vyapar Nigam Ltd.
 ■ Reliance Energy Trading (P) Ltd
 ■ Others

Table-3: PRICE OF ELECTRICITY TRANSACTED THROUGH TRADERS, JUNE 2013		
Sr.No		Sale Price of Traders (₹/kWh)
1	Minimum	2.96
2	Maximum	6.22
3	Weighted Average	4.36

Source: Information submitted by trading licensees

Table-4: PRICE OF ELECTRICITY TRANSACTED THROUGH TRADERS (TIME-WISE), JUNE 2013		
Sr.No	Period of Trade	Sale Price of Traders (₹/kWh)
1	RTC	4.37
2	PEAK	3.98
3	OFF PEAK	4.06

Source: Information submitted by trading licensees

Table-5: PRICE OF ELECTRICITY TRANSACTED THROUGH POWER EXCHANGES, JUNE 2013			
Sr.No	ACP	Price in IEX (₹/kWh)	Price in PXIL (₹/kWh)
1	Minimum	0.90	0.80
2	Maximum	20.00	5.00
3	Weighted Average	2.52	2.15

Source: Information submitted by IEX and PXIL

Table-6: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF IEX, JUNE 2013			
Sr.No	Term ahead contracts	Actual Scheduled Volume (MUs)	Weighted Average Price (₹/kWh)
1	Intra-Day Contracts	10.77	2.70
2	Day Ahead Contingency Contracts	0.72	2.90
	Total	11.48	2.71

Source: IEX

Table-7: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF PXIL, JUNE 2013			
Sr.No	Term ahead contracts	Actual Scheduled Volume (MUs)	Weighted Average Price (₹/kWh)
1	Intra-Day Contracts	4.60	2.60
	Total	4.60	2.60

Source: PXIL

Table-8: PRICE OF ELECTRICITY TRANSACTED THROUGH UI, JUNE 2013			
Sr.No		Price in NEW Grid (₹/kWh)	Price in SR Grid (₹/kWh)
1	Minimum	0.00	0.00
2	Maximum	10.80	9.06
3	Average	1.64	2.67

Source: NLDC

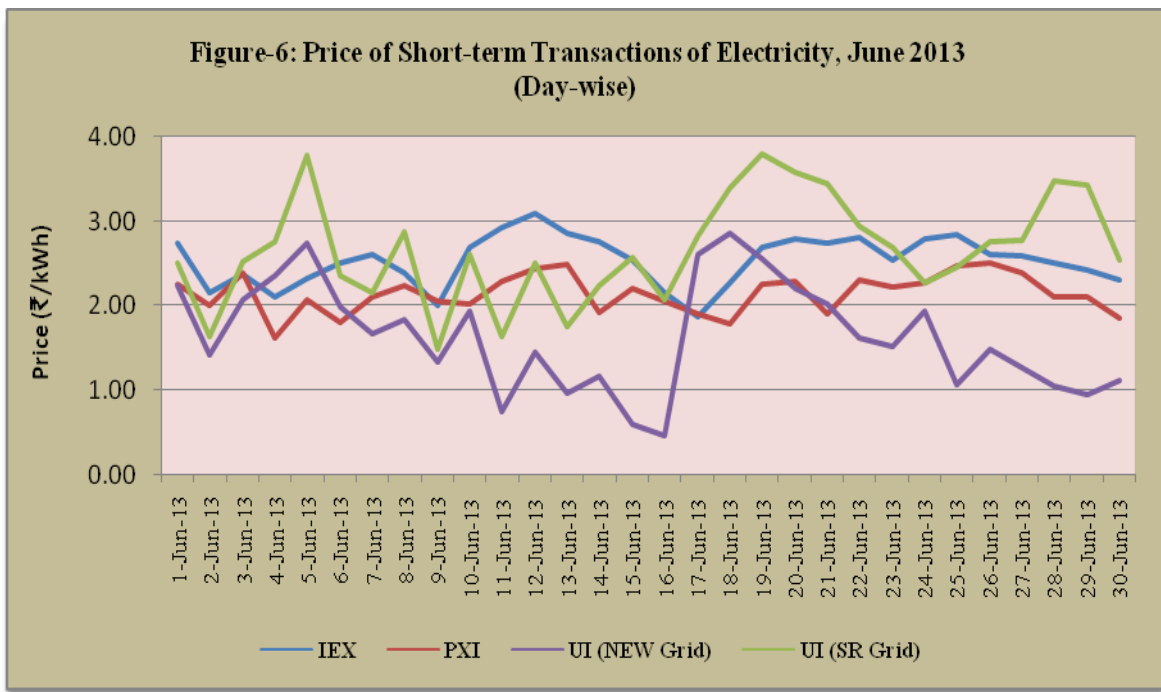
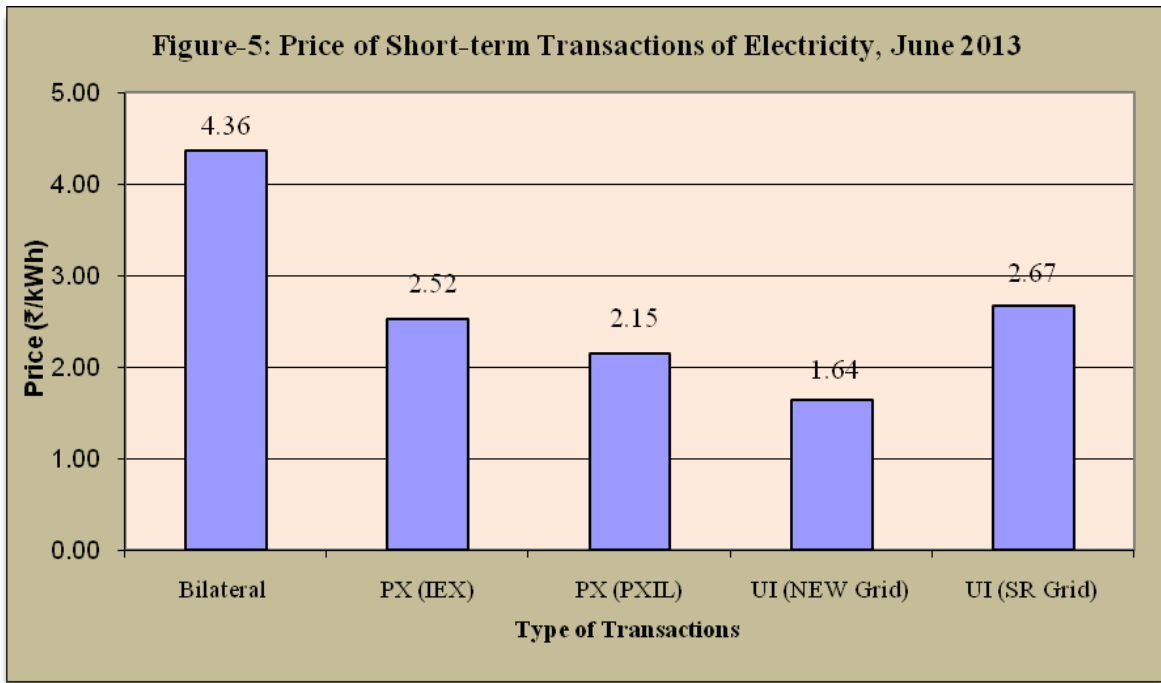


Table-9: VOLUME OF ELECTRICITY SALE THROUGH BILATERAL, JUNE 2013		
Name of the State/UT/Other Regional Entity	Volume of Sale (MUs)	% of Volume
UT Chandigarh	613.94	11.91%
STERLITE	571.74	11.09%
Himachal Pradesh	504.42	9.79%
KARCHAM WANGTOO	501.78	9.73%
J & K	320.06	6.21%
Karnataka	305.65	5.93%
Rajasthan	275.39	5.34%
JINDAL POWER	252.70	4.90%
Orissa	219.09	4.25%
Gujarat	212.53	4.12%
DVC	195.58	3.79%
SHREE CEMENT	182.39	3.54%
Chattisgarh	174.67	3.39%
Maharashtra	167.31	3.25%
SIMHAPURI	151.00	2.93%
MP	139.05	2.70%
West Bengal	116.49	2.26%
Delhi	68.98	1.34%
AD HYDRO	60.87	1.18%
Jharkhand	29.30	0.57%
Sikkim	24.34	0.47%
MAITHON POWER LTD	24.06	0.47%
Uttar Pradesh	9.57	0.19%
Meghalaya	8.51	0.17%
ACBIL	7.03	0.14%
Assam	6.97	0.14%
Tripura	4.29	0.08%
Uttarakhand	3.49	0.07%
Punjab	2.39	0.05%
Haryana	1.00	0.02%
Total	5154.59	100.00%
Volume of sale by top 5 States	2511.94	48.73%

Table-10: VOLUME OF ELECTRICITY PURCHASE THROUGH BILATERAL, JUNE 2013

Name of the State/UT/Other Regional Entity	Volume of Purchase (MUs)	% of Volume
Punjab	968.78	20.46%
Andhra Pradesh	602.20	12.72%
Haryana	520.52	10.99%
Delhi	424.90	8.97%
Gujarat	383.24	8.09%
West Bengal	315.30	6.66%
Uttar Pradesh	290.75	6.14%
Tamilnadu	195.92	4.14%
Bihar	175.90	3.72%
Jharkhand	158.91	3.36%
Kerala	142.83	3.02%
Rajasthan	142.48	3.01%
Assam	91.15	1.93%
Dadra & Nagar Haveli	70.58	1.49%
Uttarakhand	68.50	1.45%
DVC	64.30	1.36%
Maharashtra	54.37	1.15%
Karnataka	25.27	0.53%
J & K	14.14	0.30%
Himachal Pradesh	10.90	0.23%
Chattisgarh	9.87	0.21%
Orissa	1.80	0.04%
Meenakshi	0.95	0.02%
Meghalaya	0.84	0.02%
Total	4734.40	100.00%
Volume of sale by top 5 States	2899.65	61.25%

Table-11: VOLUME OF ELECTRICITY SALE THROUGH POWER EXCHANGES, JUNE 2013		
Name of the State/UT/Other Regional Entity	Volume of Sale (MUs)	% of Volume
KARCHAM WANGTOO	281.31	12.98%
Delhi	248.02	11.44%
JINDAL POWER	225.08	10.38%
Karnataka	206.16	9.51%
Himachal Pradesh	149.44	6.89%
MP	137.09	6.32%
Gujarat	111.38	5.14%
AD HYDRO	75.45	3.48%
Andhra Pradesh	73.63	3.40%
West Bengal	68.22	3.15%
Maharashtra	58.60	2.70%
Chattisgarh	50.18	2.31%
CHUZACHEN	45.55	2.10%
Meenakshi	45.14	2.08%
EMCO	34.83	1.61%
Sikkim	34.01	1.57%
Meghalaya	33.47	1.54%
Haryana	29.84	1.38%
ACBIL	29.70	1.37%
LANCO BUDHIL	29.31	1.35%
SIMHAPURI	28.64	1.32%
Punjab	22.17	1.02%
MAITHON POWER LTD	20.58	0.95%
Uttarakhand	20.18	0.93%
NEEPCO Stations	19.60	0.90%
STERLITE	19.14	0.88%
Orissa	18.18	0.84%
DVC	15.87	0.73%
Assam	13.88	0.64%
Rajasthan	10.37	0.48%
RANGANADI HEP	5.34	0.25%
Arunachal Pradesh	3.17	0.15%
J & K	2.73	0.13%
Nagaland	1.00	0.05%
SHREE CEMENT	0.27	0.01%
Tripura	0.21	0.01%
BALCO	0.02	0.00%
Total	2167.76	100.00%
Volume of sale by top 5 States	1110.01	51.21%

Table-12: VOLUME OF ELECTRICITY PURCHASE THROUGH POWER EXCHANGES, JUNE 2013		
Name of the State/UT/Other Regional Entity	Volume of Purchase (MUs)	% of Volume
Gujarat	533.23	24.60%
Andhra Pradesh	422.85	19.51%
Punjab	281.11	12.97%
Rajasthan	211.75	9.77%
Haryana	135.06	6.23%
Tamilnadu	103.65	4.78%
Uttarakhand	90.19	4.16%
Uttar Pradesh	86.14	3.97%
J & K	62.25	2.87%
Kerala	56.92	2.63%
Maharashtra	52.72	2.43%
MP	42.54	1.96%
Chattisgarh	18.24	0.84%
Assam	17.28	0.80%
Karnataka	15.09	0.70%
West Bengal	8.84	0.41%
Meghalaya	6.39	0.29%
Himachal Pradesh	5.83	0.27%
Tripura	4.89	0.23%
UT Chandigarh	4.62	0.21%
Arunachal Pradesh	2.97	0.14%
Goa	2.31	0.11%
Daman and Diu	2.29	0.11%
Delhi	0.60	0.03%
Total	2167.76	100.00%
Volume of purchase by top 5 States	1584.00	73.07%

Table-13: VOLUME OF ELECTRICITY EXPORT THROUGH UI, JUNE 2013		
Name of the State/UT/Other Regional Entity	Volume of Export (MUs)	% of Volume
Haryana	198.74	12.06%
Rajasthan	165.36	10.03%
Punjab	154.77	9.39%
Delhi	116.90	7.09%
MP	105.22	6.38%
Uttar Pradesh	87.23	5.29%
Maharashtra	74.16	4.50%
Bihar	67.86	4.12%
Gujarat	61.59	3.74%
Jharkhand	53.93	3.27%
Chattisgarh	47.12	2.86%
J & K	42.25	2.56%
Himachal Pradesh	39.75	2.41%
Tamilnadu	38.49	2.34%
NHPC Stations	38.16	2.31%
West Bengal	35.71	2.17%
Karnataka	28.65	1.74%
Andhra Pradesh	27.18	1.65%
Uttarakhand	26.02	1.58%
DVC	24.36	1.48%
JINDAL POWER	22.57	1.37%
Orissa	20.52	1.25%
Assam	15.20	0.92%
STERLITE	12.76	0.77%
Goa	12.12	0.74%
Manipur	10.56	0.64%
Meghalaya	10.40	0.63%
UT Chandigarh	9.91	0.60%
AD HYDRO	9.87	0.60%
Pondicherry	8.95	0.54%
Dadra & Nagar Haveli	8.56	0.52%
NEEPCO Stations	7.97	0.48%
Sikkim	7.46	0.45%
CGPL	6.67	0.40%
Arunachal Pradesh	6.64	0.40%
KARCHAM WANGTOO	6.22	0.38%
LANKO_AMK	6.18	0.38%
Daman and Diu	5.01	0.30%
MAITHON POWER LTD	4.48	0.27%
NSPCL	3.93	0.24%
Mizoram	3.52	0.21%
NJPC	3.30	0.20%
Nagaland	2.91	0.18%
ACBIL	1.96	0.12%
Kerala	1.74	0.11%
Tripura	1.48	0.09%
SIMHAPURI	1.46	0.09%
SHREE CEMENT	1.40	0.08%
RGPPL(Dabhol)	0.87	0.05%
BALCO	0.37	0.02%
DCPP	0.01	0.00%
LANKO_KONDAPALLY	0.01	0.00%
Total	1648.46	100.00%
Volume of Export by top 5 States	741.00	44.95%

Table-14: VOLUME OF ELECTRICITY IMPORT THROUGH UI, JUNE 2013

Name of the State/UT/Other Regional Entity	Volume of Import (MUs)	% of Volume
Uttar Pradesh	154.43	10.77%
Gujarat	105.49	7.36%
Maharashtra	102.76	7.17%
West Bengal	90.44	6.31%
KARCHAM WANGTOO	88.52	6.17%
Orissa	75.36	5.26%
Kerala	63.66	4.44%
STERLITE	52.22	3.64%
Uttarakhand	46.32	3.23%
DVC	43.24	3.02%
Tamilnadu	42.80	2.99%
CGPL	42.66	2.98%
Assam	41.70	2.91%
Chattisgarh	38.71	2.70%
Andhra Pradesh	35.20	2.46%
NHPC Stations	34.22	2.39%
J & K	31.04	2.16%
Haryana	29.06	2.03%
Himachal Pradesh	28.74	2.00%
Punjab	24.11	1.68%
Goa	22.77	1.59%
Tripura	20.13	1.40%
Delhi	18.19	1.27%
MP	17.53	1.22%
Bihar	16.03	1.12%
Karnataka	15.82	1.10%
Rajasthan	13.62	0.95%
Jharkhand	13.19	0.92%
Daman and Diu	12.37	0.86%
UT Chandigarh	12.05	0.84%
Dadra & Nagar Haveli	11.87	0.83%
LANKO_AMK	8.69	0.61%
MAITHON POWER LTD	8.23	0.57%
NJPC	7.60	0.53%
SHREE CEMENT	7.28	0.51%
RGPPL(Dabhol)	7.19	0.50%
Arunachal Pradesh	6.58	0.46%
ACBIL	6.55	0.46%
AD HYDRO	5.10	0.36%
NEEPCO Stations	4.93	0.34%
Meghalaya	4.81	0.34%
Nagaland	3.93	0.27%
Mizoram	3.56	0.25%
Sikkim	2.94	0.21%
BALCO	2.63	0.18%
Manipur	2.27	0.16%
Pondicherry	2.22	0.15%
JINDAL POWER	1.99	0.14%
NSPCL	1.71	0.12%
SIMHAPURI	0.98	0.07%
LANKO_KONDAPALLY	0.30	0.02%
DCPP	0.001	0.00%
Total	1433.70	100.00%
Volume of Export by top 5 States	541.63	37.78%

Table-15: TOTAL VOLUME OF NET SHORT-TERM TRANSACTIONS OF ELECTRICITY (REGIONAL ENTITY-WISE), JUNE 2013

Sr.No.	Name of the State/UT/Other Regional Entity	Total volume of net short-term transactions of electricity*
1	Punjab	1094.67
2	Andhra Pradesh	959.44
3	Gujarat	636.45
4	Haryana	455.07
5	Uttar Pradesh	434.51
6	Tamilnadu	303.87
7	Kerala	261.67
8	West Bengal	194.16
9	Uttarakhand	155.31
10	Bihar	124.07
11	Assam	114.08
12	Jharkhand	88.86
13	Dadra & Nagar Haveli	73.89
14	CGPL	35.99
15	Tripura	19.04
16	Goa	12.96
17	Delhi	9.77
18	Daman and Diu	9.65
19	RGPPL(Dabhol)	6.32
20	NJPC	4.30
21	LANKO_AMK	2.51
22	BALCO	2.24
23	LANKO_KONDAPALLY	0.29
24	Mizoram	0.04
25	Nagaland	0.02
26	DCPP	-0.01
27	Arunachal Pradesh	-0.27
28	NSPCL	-2.22
29	NHPC Stations	-3.94
30	RANGANADI HEP	-5.34
31	Pondicherry	-6.73
32	Manipur	-8.29
33	NEEPCO Stations	-22.64
34	LANCO BUDHIL	-29.31
35	ACBIL	-32.14
36	EMCO	-34.83
37	Meghalaya	-40.34
38	MAITHON POWER LTD	-40.88
39	Meenakshi	-44.19
40	CHUZACHEN	-45.55
41	Sikkim	-62.87
42	Rajasthan	-83.26
43	Maharashtra	-90.23
44	DVC	-128.27
45	AD HYDRO	-141.09
46	SHREE CEMENT	-176.78
47	SIMHAPURI	-180.11
48	Orissa	-180.63
49	Chattisgarh	-205.14
50	J & K	-257.61
51	MP	-321.29
52	Karnataka	-484.27
53	JINDAL POWER	-498.37
54	STERLITE	-551.42
55	UT Chandigarh	-607.18
56	Himachal Pradesh	-648.14
57	KARCHAM WANGTOO	-700.79

* 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, JUNE 2013			
	Details of Congestion	IEX	PXIL
A	Unconstrained Cleared Volume* (MUs)	2419.50	64.19
B	Actual Cleared Volume and hence scheduled (MUs)	2114.56	53.20
C	Volume of electricity that could not be cleared and hence not scheduled because of congestion (MUs) (A-B)	304.94	10.99
D	Volume of electricity that could not be cleared as % to Unconstrained Cleared Volume	12.60%	17.12%
E	Percentage of the time congestion occurred during the month (Number of hours congestion occurred/Total number of hours in the month)	96.91%	87.85%
F	Congestion occurrence (%) time block wise		
	0.00 - 6.00 hours	23.65%	24.35%
	6.00 - 12.00 hours	25.65%	27.04%
	12.00 - 18.00 hours	25.69%	26.09%
	18.00 - 24.00 hours	25.01%	22.53%
<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), JUNE 2013 (DAY-WISE)						
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-Jun-13	94.50	48.58	92.03	4.99	66.01	2599.48
2-Jun-13	90.69	44.49	82.18	1.64	59.85	2572.73
3-Jun-13	97.61	48.69	83.01	1.91	59.44	2661.23
4-Jun-13	100.02	48.63	75.56	1.70	54.44	2684.13
5-Jun-13	98.69	48.55	73.04	2.26	57.41	2682.60
6-Jun-13	98.09	48.60	77.25	1.55	68.27	2608.36
7-Jun-13	99.34	48.38	86.37	2.80	65.05	2575.20
8-Jun-13	99.17	49.11	73.44	1.38	57.26	2593.15
9-Jun-13	95.83	43.62	72.02	1.82	59.69	2506.95
10-Jun-13	121.23	41.93	58.25	1.57	63.03	2549.36
11-Jun-13	112.46	40.57	61.06	1.74	80.25	2530.92
12-Jun-13	120.62	45.44	57.70	1.09	60.19	2528.41
13-Jun-13	123.54	48.42	56.73	1.53	72.49	2461.56
14-Jun-13	128.46	48.83	62.44	1.77	59.46	2461.22
15-Jun-13	129.15	53.39	69.13	1.93	81.01	2353.14
16-Jun-13	108.69	52.28	67.40	1.56	89.67	2227.13
17-Jun-13	102.24	49.46	70.06	1.58	84.69	2303.55
18-Jun-13	103.74	48.86	71.26	1.45	66.40	2400.45
19-Jun-13	114.87	50.67	68.61	1.56	66.51	2506.31
20-Jun-13	117.54	54.57	77.77	1.12	53.85	2601.87
21-Jun-13	117.72	52.71	71.27	1.26	51.32	2590.08
22-Jun-13	117.90	52.74	73.76	1.62	48.18	2578.94
23-Jun-13	113.68	49.05	71.15	1.50	53.60	2561.20
24-Jun-13	118.38	47.88	71.43	1.78	57.15	2626.16
25-Jun-13	115.75	52.94	69.61	1.98	59.03	2570.60
26-Jun-13	113.44	52.38	72.55	1.89	63.13	2690.00
27-Jun-13	108.47	46.27	62.00	1.85	67.68	2535.62
28-Jun-13	111.68	50.05	61.76	1.31	69.73	2517.67
29-Jun-13	100.32	47.53	62.86	1.81	73.84	2636.00
30-Jun-13	100.73	44.25	62.86	1.25	75.50	2394.28
Total	3274.56	1458.89	2114.56	53.20	1944.12	76108.30
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), JUNE 2013 (DAY-WISE)

Market Segment	Day ahead market of IEX			Day ahead market of PXIL			Under Drawl/Over Drawl 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-Jun-13	1.00	7.21	2.73	1.50	5.00	2.24	0.00	8.21	2.24	0.00	7.65	2.51	
2-Jun-13	0.90	5.60	2.16	1.28	3.75	2.00	0.00	3.93	1.41	0.00	5.06	1.64	
3-Jun-13	1.00	6.46	2.37	1.47	3.75	2.39	0.00	7.37	2.07	0.00	7.65	2.54	
4-Jun-13	0.93	6.50	2.10	1.40	3.75	1.61	0.00	5.63	2.35	0.00	7.09	2.77	
5-Jun-13	0.90	16.00	2.32	1.40	3.75	2.07	0.00	7.93	2.75	0.00	7.09	3.78	
6-Jun-13	0.95	17.00	2.50	1.40	3.75	1.80	0.00	7.37	1.99	0.00	5.91	2.37	
7-Jun-13	1.25	9.00	2.61	1.20	3.75	2.10	0.00	5.06	1.67	0.00	5.06	2.16	
8-Jun-13	0.95	16.00	2.39	1.23	2.70	2.23	0.00	7.65	1.84	0.00	8.49	2.88	
9-Jun-13	0.90	8.00	2.00	1.20	2.70	2.04	0.00	4.22	1.33	0.00	5.06	1.49	
10-Jun-13	1.29	10.00	2.69	0.80	3.70	2.01	0.00	5.63	1.94	0.00	5.91	2.62	
11-Jun-13	1.59	16.00	2.93	0.80	3.70	2.28	0.00	3.36	0.74	0.00	5.34	1.65	
12-Jun-13	1.80	16.00	3.09	1.29	3.02	2.44	0.00	7.09	1.45	0.00	7.37	2.51	
13-Jun-13	1.68	17.00	2.86	1.96	3.01	2.49	0.00	5.06	0.95	0.00	4.78	1.76	
14-Jun-13	1.29	9.00	2.75	1.20	3.01	1.91	0.00	5.06	1.16	0.00	7.65	2.25	
15-Jun-13	1.29	8.00	2.54	0.80	3.01	2.20	0.00	2.51	0.59	0.00	5.63	2.57	
16-Jun-13	1.20	3.70	2.15	1.20	3.01	2.04	0.00	4.78	0.46	0.00	5.91	2.08	
17-Jun-13	1.25	5.50	1.87	1.80	3.01	1.89	0.00	10.80	2.62	0.00	7.65	2.83	
18-Jun-13	1.40	6.50	2.27	1.60	3.10	1.78	0.00	10.80	2.86	0.00	8.49	3.40	
19-Jun-13	1.80	5.50	2.68	1.75	2.50	2.25	0.50	9.06	2.57	0.17	9.06	3.80	
20-Jun-13	2.00	5.80	2.78	2.00	2.73	2.28	0.00	7.93	2.22	0.00	7.09	3.58	
21-Jun-13	1.84	5.50	2.73	1.50	2.60	1.89	0.00	5.34	2.02	0.00	7.65	3.45	
22-Jun-13	1.98	6.01	2.80	1.50	2.65	2.30	0.00	5.63	1.62	0.00	7.65	2.94	
23-Jun-13	1.80	6.01	2.54	1.29	2.65	2.22	0.00	4.50	1.51	0.00	7.09	2.69	
24-Jun-13	2.00	6.05	2.78	1.75	2.65	2.27	0.00	7.37	1.94	0.00	5.91	2.27	
25-Jun-13	1.99	9.00	2.84	1.75	3.00	2.46	0.00	5.63	1.06	0.00	7.93	2.46	
26-Jun-13	1.90	6.01	2.61	1.28	3.20	2.50	0.00	4.78	1.48	0.50	8.49	2.76	
27-Jun-13	1.79	19.50	2.59	1.70	2.80	2.38	0.00	4.22	1.26	0.00	5.91	2.79	
28-Jun-13	1.80	16.50	2.50	1.70	2.60	2.10	0.00	7.09	1.05	0.17	7.09	3.48	
29-Jun-13	1.58	20.00	2.42	1.50	4.50	2.09	0.00	4.22	0.94	0.00	7.65	3.43	
30-Jun-13	1.31	6.01	2.30	1.50	2.30	1.85	0.00	4.50	1.10	0.17	5.34	2.54	
	0.90#	20.00#	2.52	0.80#	5.00#	2.15	0.00#	10.80#	1.64	0.00#	9.06#	2.67	

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), JUNE 2013

Name of the State/UT/Other Regional Entity	Through Bilateral			Through Power Exchange			Through UI with Regional Grid			Total Net***
	Sale	Purchase	Net**	Sale	Purchase	Net**	Export (Under Drawl)	Import (Over Drawl)	Net**	
Punjab	2.39	968.78	966.39	22.17	281.11	258.94	154.77	24.11	-130.65	1094.67
Haryana	1.00	520.52	519.52	29.84	135.06	105.22	198.74	29.06	-169.68	455.07
Rajasthan	275.39	142.48	-132.90	10.37	211.75	201.37	165.36	13.62	-151.74	-83.26
Delhi	68.98	424.90	355.91	248.02	0.60	-247.42	116.90	18.19	-98.72	9.77
Uttar Pradesh	9.57	290.75	281.17	0.00	86.14	86.14	87.23	154.43	67.20	434.51
Uttarakhand	3.49	68.50	65.01	20.18	90.19	70.01	26.02	46.32	20.29	155.31
Himachal Pradesh	504.42	10.90	-493.52	149.44	5.83	-143.61	39.75	28.74	-11.01	-648.14
J & K	320.06	14.14	-305.92	2.73	62.25	59.52	42.25	31.04	-11.21	-257.61
UT Chandigarh	613.94	0.00	-613.94	0.00	4.62	4.62	9.91	12.05	2.14	-607.18
MP	139.05	0.00	-139.05	137.09	42.54	-94.55	105.22	17.53	-87.69	-321.29
Maharashtra	167.31	54.37	-112.94	58.60	52.72	-5.89	74.16	102.76	28.60	-90.23
Gujarat	212.53	383.24	170.71	111.38	533.23	421.85	61.59	105.49	43.89	636.45
Chattisgarh	174.67	9.87	-164.79	50.18	18.24	-31.94	47.12	38.71	-8.41	-205.14
Daman and Diu	0.00	0.00	0.00	0.00	2.29	2.29	5.01	12.37	7.36	9.65
Dadra & Nagar Haveli	0.00	70.58	70.58	0.00	0.00	0.00	8.56	11.87	3.31	73.89
Andhra Pradesh	0.00	602.20	602.20	73.63	422.85	349.22	27.18	35.20	8.01	959.44
Karnataka	305.65	25.27	-280.38	206.16	15.09	-191.07	28.65	15.82	-12.83	-484.27
Kerala	0.00	142.83	142.83	0.00	56.92	56.92	1.74	63.66	61.91	261.67
Tamilnadu	0.00	195.92	195.92	0.00	103.65	103.65	38.49	42.80	4.30	303.87
Pondicherry	0.00	0.00	0.00	0.00	0.00	0.00	8.95	2.22	-6.73	-6.73
West Bengal	116.49	315.30	198.81	68.22	8.84	-59.38	35.71	90.44	54.73	194.16
Orissa	219.09	1.80	-217.29	18.18	0.00	-18.18	20.52	75.36	54.84	-180.63
Bihar	0.00	175.90	175.90	0.00	0.00	0.00	67.86	16.03	-51.83	124.07
Jharkhand	29.30	158.91	129.60	0.00	0.00	0.00	53.93	13.19	-40.74	88.86
Sikkim	24.34	0.00	-24.34	34.01	0.00	-34.01	7.46	2.94	-4.52	-62.87
DVC	195.58	64.30	-131.28	15.87	0.00	-15.87	24.36	43.24	18.88	-128.27
Arunachal Pradesh	0.00	0.00	0.00	3.17	2.97	-0.21	6.64	6.58	-0.06	-0.27
Assam	6.97	91.15	84.18	13.88	17.28	3.40	15.20	41.70	26.50	114.08
Manipur	0.00	0.00	0.00	0.00	0.00	0.00	10.56	2.27	-8.29	-8.29
Meghalaya	8.51	0.84	-7.67	33.47	6.39	-27.08	10.40	4.81	-5.59	-40.34
Mizoram	0.00	0.00	0.00	0.00	0.00	0.00	3.52	3.56	0.04	0.04
Nagaland	0.00	0.00	0.00	1.00	0.00	-1.00	2.91	3.93	1.02	0.02
Tripura	4.29	0.00	-4.29	0.21	4.89	4.68	1.48	20.13	18.65	19.04
Goa	0.00	0.00	0.00	0.00	2.31	2.31	12.12	22.77	10.66	12.96
NHPC Stations	0.00	0.00	0.00	0.00	0.00	0.00	38.16	34.22	-3.94	-3.94
NJPC	0.00	0.00	0.00	0.00	0.00	0.00	3.30	7.60	4.30	4.30
AD HYDRO	60.87	0.00	-60.87	75.45	0.00	-75.45	9.87	5.10	-4.78	-141.09
KARCHAM WANGTOO	501.78	0.00	-501.78	281.31	0.00	-281.31	6.22	88.52	82.30	-700.79
SHREE CEMENT	182.39	0.00	-182.39	0.27	0.00	-0.27	1.40	7.28	5.88	-176.78
LANCO BUDHIL	0.00	0.00	0.00	29.31	0.00	-29.31	0.00	0.00	0.00	-29.31
ADANI HVDC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JINDAL POWER	252.70	0.00	-252.70	225.08	0.00	-225.08	22.57	1.99	-20.58	-498.37
LANCO_AMK	0.00	0.00	0.00	0.00	0.00	0.00	6.18	8.69	2.51	2.51
NSPCL	0.00	0.00	0.00	0.00	0.00	0.00	3.93	1.71	-2.22	-2.22
ACBIL	7.03	0.00	-7.03	29.70	0.00	-29.70	1.96	6.55	4.58	-32.14
BALCO	0.00	0.00	0.00	0.02	0.00	-0.02	0.37	2.63	2.26	2.24
RGPPPL(Dabhol)	0.00	0.00	0.00	0.00	0.00	0.00	0.87	7.19	6.32	6.32

CGPL	0.00	0.00	0.00	0.00	0.00	0.00	6.67	42.66	35.99	35.99
DCPP	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	-0.01	-0.01
EMCO	0.00	0.00	0.00	34.83	0.00	-34.83	0.00	0.00	0.00	-34.83
VANDANA VIDYUT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LANKO KONDAPALLY	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.30	0.29	0.29
SIMHAPURI	151.00	0.00	-151.00	28.64	0.00	-28.64	1.46	0.98	-0.48	-180.11
Meenakshi	0.00	0.95	0.95	45.14	0.00	-45.14	0.00	0.00	0.00	-44.19
STERLITE	571.74	0.00	-571.74	19.14	0.00	-19.14	12.76	52.22	39.46	-551.42
MAITHON POWER LTD	24.06	0.00	-24.06	20.58	0.00	-20.58	4.48	8.23	3.75	-40.88
ADHUNIK POWER LTD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CHUZACHEN	0.00	0.00	0.00	45.55	0.00	-45.55	0.00	0.00	0.00	-45.55
NEEPCO Stations	0.00	0.00	0.00	19.60	0.00	-19.60	7.97	4.93	-3.04	-22.64
RANGANADI HEP	0.00	0.00	0.00	5.34	0.00	-5.34	0.00	0.00	0.00	-5.34

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, JUNE 2013					
Sr.No.	Details of REC Transactions	IEX		PXIL	
		Solar	Non-Solar	Solar	Non Solar
A	Volume of Buy Bid	797	36147	682	36339
B	Volume of Sell Bid	2836	1401048	3096	987886
C	Ratio of Buy Bid to Sell Bid Volume	0.28	0.03	0.22	0.04
D	Market Clearing Volume (MWh)	797	36147	682	36339
E	Market Clearing Price (₹/MWh)	9300	1500	9300	1500

Source: IEX and PXIL

Note 1: 1 REC = 1 MWh

Note 2:

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