

Monthly Report on Short-term Transactions of Electricity in India

October, 2019



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Abbreviations

Abbreviation	Expanded Version
ACBIL	ACB (India) Limited
ACP	Area Clearing Price
ACV	Area Clearing Volume
ACME_SLR	ACME Solar Power Project
ACME_RUMS	Acme Rewa Ultra Mega Solar Project
ARINSUM_RUMS	Solenergi Rewa Ultra Mega Solar Project
AZURE_SLR	Azure Power Solar Power Project
AZURE34_SLR	Azure Power 34 Pvt. Ltd. Solar Power Project
BALCO	Bharat Aluminum Company Limited
BARC	Bhabha Atomic Research Centre
BBMB	Bhakra Beas Management Board
BRBCL	Bhartiya Rail Bijlee Company Limited
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CGPL	Coastal Gujarat Power Limited
CHUKHA HEP	Chhukha Hydroelectric Project, Bhutan
CHUZACHEN HEP	Chuzachen Hydro Electric Power Project
COASTGEN	Coastal Energen Private Limited
DAGACHU	Dagachhu Hydro Power Corporation
DB POWER	Diligent Power Pvt. Ltd.
DCPP	Donga Mahua Captive Power Plant
DGEN MEGA POWER	DGEN Mega Power Project
DHARIWAL POWER	Dhariwal Power Station
DIKCHU HEP	Dikchu Hydro-electric Project, Sikkim
DOYANG HEP	Doyang Hydro Electric Project
DSM	Deviation Settlement Mechanism
DVC	Damodar Valley Corporation
EMCO	EMCO Energy Limited
ESSAR POWER	Essar Power Limited
ESSAR STEEL	Essar Steel Ltd
GIWEL_BHUJ	Green infra wind energy Limited, Bhuj
GMR CHHATTISGARH	GMR Chhattisgarh Energy Limited
GMR KAMALANGA	GMR Kamalanga Energy Ltd.
HVDC CHAMPA	Champa-Kurukshetra High Voltage Direct Current Link
IEX	Indian Energy Exchange Limited
IGSTPS	Indira Gandhi Super Thermal Power Station Jhajjar
IL&FS	Infrastructure Leasing & Financial Services Limited
INOX_BHUJ	INOX Wind Limited, Bhuj, Gujarat
J&K	Jammu & Kashmir
JAYPEE NIGRIE	Jaypee Nigrie Super Thermal Power Project
JHABUA POWER MP	Jhabua Thermal Power Project
JINDAL POWER	Jindal Power Limited
JINDAL STAGE-II	Jindal Power Ltd Stage II
JITPL	Jindal India Thermal Power Ltd.
JORETHANG	Jorethang Loop Hydroelectric Power Project

KAPP 3&4	Kakrapar Atomic Power Station Unit 3 & 4
KARCHAM WANGTOO	Karcham Wangtoo H.E. Project
KORBA WEST POWER	Korba West Power Company Limited
KOTESHWAR	Koteshwar Hydro Power project
KSK MAHANADI	KSK Mahanadi Power Ltd
KURICHU HEP	Kurichhu Hydro-electric Power Station, Bhutan
LANKO_AMK	LancoAmarkantak Power Private Limited
LANKO BUDHIL	LancoBudhil Hydro Power Private Limited
LANKO KONDAPALLY	LancoKondapally Power Private Limited
LOKTAK	Loktak Power Project
MAHINDRA_RUMS	Mahindra Rewa Ultra Mega Solar Project
MAHOBASLR	Mahoba Solar Power Project
MALANA	Malana Hydroelectric Plant
MANGDECHU HEP	Mangdechhu Hydroelectric Project, Mangdechhu River, Bhutan
Maruti Coal	Maruti Clean Coal and Power Limited
MB POWER	MB Power Ltd
MEENAKSHI	Meenakshi Energy Private Limited
MP	Madhya Pradesh
MTPS II	Muzaffarpur Thermal Power Station – Stage II
MUs	Million Units
NAPP	Narora Atomic Power Plant
NEEPCO	North Eastern Electric Power Corporation Limited
NEP	Nepal
NFL	National Fertilisers Limited
NHPC STATIONS	National Hydro Electric Power Corporation Ltd. Stations
NJPC	Nathpa Jhakri Hydroelectric Power Station
NLC	Neyveli Lignite Corporation Limited
NLDC	National Load Dispatch Centre
NPGC	Nabinagar Power Generating Company (Pvt.) Limited
NSPCL	NTPC - SAIL Power Company Private Limited
NTECL Vallur	NTPC Tamil Nadu Energy Company Limited Vallur
NTPC STATIONS	National Thermal Power Corporation Ltd. Stations
NTPL	NLC Tamil Nadu Power Limited
NVVN	NTPC Vidyut Vyapar Nigam Limited
ONGC Platana	ONGC Tripura Power Company
OPGC	Odisha Power Generation Corporation
OSTRO	Ostro Energy Private Limited
OTC	Over The Counter
PARE HEP	Pare hydroelectric project, Arunachal Pradesh
PX	Power Exchange
PXIL	Power Exchange India Limited
RAIL	Indian Railways
RAMPUR HEP	Rampur Hydro Electric Power Project
RANGIT HEP	Rangit Hydroelectric power project
RANGANADI HEP	Ranganadi Hydro Electric Power Project, Arunachal Pradesh
RAP-B	Rajasthan Atomic Power Plant-B
RAP-C	Rajasthan Atomic Power Plant-C
REC	Renewable Energy Certificate

RENEW_BHACHAU	ReNew Power Limited, Bhachau
RENEW_SLR	Renew Solar
RGPPL	Ratnagiri Gas and Power Private Limited
RLDC	Regional Load Dispatch Centre
RTC	Round The Clock
Sasan UMPP	Sasan Ultra Mega Power Project
SB_SLR	Soft Bank Solar
SEMBCORP	Sembcorp Gayatri Power Ltd
SHREE CEMENT	Shree Cement Limited
SIMHAPURI	Simhapuri Energy Private Limited
SKS Power	SKS Power Generation Chhattisgarh Limited
SPECTRUM	Spectrum Power Generation Ltd
TALA HEP	Tala Hydroelectric Project, Bhutan
TASHIDENG HEP	Tashiding Hydro Electric Project, Sikkim
TATA_SLR	Tata Solar
TEESTA STG3	Teesta Stage 3 Hydro Power Project
TEHRI	Tehri Hydro Electric Power Project
THERMAL POWERTECH	Thermal Powertech Corporation India Limited
URI-II	Uri-II Hydropower Project

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) 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 Deviation Settlement Mechanism (DSM). 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 analyse bilateral contracts executed by traders; (v) to provide information on volume and price of Renewable Energy Certificates (RECs) transacted through power exchanges; and (vi) to disclose/disseminate all relevant market information. The details of the report for the month of **October, 2019** are as under:

I: Volume of Short-term Transactions of Electricity

During October 2019, total electricity generation excluding generation from renewable and captive power plants in India was 98886.65 MUs (Table-1).

Of the total electricity generation, 9930.47 MUs (10.04%) was transacted through short-term, comprising of 4473.00 MUs (4.52%) through bilateral (through traders and term-ahead contracts on power exchanges and directly between distribution companies), followed by 3401.29 MUs (3.44%) through day ahead collective transactions on power exchanges and 2056.18 MUs (2.08%) through DSM (Table-1 & Figure-2).

Of the total short-term transactions, bilateral constitutes 45.04% (23.71% through traders and term-ahead contracts on power exchanges and 21.33% directly between distribution companies) followed by 34.25% through day ahead collective transactions on power exchanges and 20.71% through DSM (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 the trading licensees is provided in Table-2 & Figure-4. The volume of electricity transacted by the trading licensees includes bilateral transactions and the transactions undertaken through power exchanges. There were 36 trading licensees as on October 2019. In October 2019, 22 trading licensees were engaged in short term trading. Top 5 trading licensees had a share of 74.63% in the total volume traded by all the licensees. These are PTC India Ltd., Manikaran Power Ltd., Adani Enterprises Ltd., TATA Power Trading Company (P) Ltd. and Kreate Energy (I) Pvt. Ltd.

Herfindahl-Hirschman Index (HHI) has been used for measuring the competition among the trading licensees. Increase in the HHI generally indicates decrease in competition and increase of market concentration, and vice versa. The HHI below 0.15 indicates non-concentration, HHI between 0.15 and 0.25 indicates moderate concentration and HHI above 0.25 indicates high concentration. The HHI has been computed based on the volume of electricity traded (inter-State & intra-State) by inter-State trading licensees, and it was 0.1730 for the month of October 2019, which indicates moderate concentration of market power (Table-2).

The volume of electricity transacted through IEX and PXIL in the day ahead market was 3391.49 MUs and 9.81 MUs respectively. The volume of total buy bids and sell bids was 3923.32 MUs and 9771.37 MUs respectively in IEX while the same was 9.81 MUs and 40.98 MUs respectively in PXIL. The variation in the volume of buy bids and sell bids placed through power exchanges shows variation in the demand and supply position.

The volume of electricity transacted through IEX and PXIL in the term-ahead market was 438.57 MUs and 447.21 MUs respectively (Table-6 & Table-7).

II: Price of Short-term Transactions of Electricity

(i) *Price of electricity transacted through Traders:* The minimum, maximum and weighted average sale prices have been computed for the electricity transacted through traders and the sale prices were ₹2.72/kWh, ₹6.96/kWh and ₹4.61/kWh respectively (Table-3). The weighted average sale prices were also computed for the transactions during

Round the Clock (RTC), Peak and Off-peak periods separately, and the sale prices were ₹3.80/kWh, ₹5.64/kWh and ₹5.25/kWh respectively (Table-4).

(ii) Price of electricity transacted through Power Exchanges: The minimum, maximum and weighted average prices have been computed for the electricity transacted through IEX and PXIL. The minimum, maximum and weighted average prices were ₹0.88/kWh, ₹8.03/kWh and ₹2.87/kWh respectively in IEX and these were ₹2.26/kWh, ₹2.95/kWh and ₹2.48/kWh respectively in PXIL (Table-5).

The price of electricity transacted through IEX and PXIL in the term-ahead market was ₹3.63/kWh and ₹3.97/kWh respectively (Table-6 and Table-7).

(iii) Price of electricity transacted through DSM: The average deviation settlement price was ₹2.45/kWh. The minimum and maximum deviation settlement prices were ₹0.00/kWh and ₹8.00/kWh respectively (Table-8).

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

III: Trading Margin

As per the CERC (Fixation of Trading Margin) Regulations, 2010, the trading licensees are allowed to charge trading margin upto 7 paise/kWh in case the sale price exceeds ₹3/kWh, and 4 paise/kWh where the sale price is less than or equal to ₹3/kWh. The weighted average trading margin charged by the trading licensees for bilateral transactions during the month was ₹0.032/kWh, where the sale price was less than or equal to ₹3/kWh and ₹0.024/kWh, when the sale price exceeded ₹3/kWh.

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

Of the total bilateral transactions, top 5 regional entities sold 46.01% of the volume, and these were Gujarat, Thermal Powertech Corporation India Ltd., IL&FS, West Bengal and

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.

GMR Chhattisgarh Energy Limited. Top 5 regional entities purchased 59.11% of the volume, and these were Andhra Pradesh, Tamil Nadu, Haryana, Uttar Pradesh and Maharashtra (Table-9 & 10).

Of the total power exchange transactions, top 5 regional entities sold 46.08% of the volume, and these were Madhya Pradesh, Teesta Stage 3 Hydro Power Project, Karnataka, Himachal Pradesh, and Sembcorp Gayatri Power Ltd. Top 5 regional entities purchased 44.97% of the volume, and these were Maharashtra, Gujarat, Tamil Nadu, Delhi and Damodar Valley Corporation (Table-11 & 12).

Of the total DSM transactions, top 5 regional entities under drew 29.34% of the volume, and these were Odisha Power Generation Corporation, Chhukha Hydroelectric Project Bhutan, Madhya Pradesh, NTPC Station (Western Region) and Rajasthan (Table-13). Top 5 regional entities overdrew 30.80% of the volume, and these were Odisha, Tala Hydroelectric Project Bhutan, NTPC Station (Western Region), Tamil Nadu and Uttar Pradesh (Table-14).

Regional entity-wise total volume of net short-term transactions of electricity i.e. volume of net transactions through bilateral, power exchanges and DSM is shown in Table-15 & 19. Top 5 electricity selling regional entities were Thermal Powertech Corporation India Ltd, Gujarat, Teesta Stage 3 Hydro Power Project, IL&FS and GMR Chhattisgarh Energy Limited. Top 5 electricity purchasing regional entities were Tamil Nadu, Maharashtra, Andhra Pradesh, Haryana and Uttar Pradesh.

V: 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

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

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 October 2019, congestion did not occur in IEX and PXIL. The details of congestion are shown in Table-16. The volume of electricity that could not be cleared due to congestion & other reasons 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.

VI: Bilateral Contracts executed by Traders

The above sections covered an analysis on short-term transactions of electricity in October, 2019. This section covers an analysis of bilateral contracts executed in November, 2019.

(i) Duration of bilateral contracts: During November 2019, a total of 46 bilateral contracts (excluding banking/swap contracts) have been executed by traders for the volume of 1452.39 MUs. Figure-7 shows the percentage of contracts categorized according to the period of power supply. It can be observed from the figure that 69.57% of the bilateral contracts were executed for duration of up to one week, 23.91% of the contracts were executed for duration of more than a week and up to one month, 6.52% of the contracts were executed for duration of more than one month and up to three month, while no contracts were executed for duration of more than three month and up to twelve months.

During the month, 11 banking/swapping bilateral contracts were also executed for the volume of 114.20 MUs.

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.

(ii) Forward Curve based on price of bilateral contracts: A forward curve reflects present day's expectation of prices for a future period. The forward curve of electricity prices are based on sale prices of bilateral contracts executed by traders. The price of each contract for each day is taken into consideration while constructing the forward curve. On the basis of these prices, the weighted average price for each day is calculated using various sale prices of contracts for delivery on that particular day.

Figure-8 represents the forward curve of electricity sale prices for the period from 1st November, 2019 to 29th February, 2020 based on the bilateral contracts⁴ executed till November, 2019. Forward curves have been drawn for the contracts executed in October, 2019 and November, 2019 for the purpose of comparison. It is observed that the forward contract prices are lower for the contracts executed in November 2019 compared to the contracts executed in October 2019, during the period from 7th November 2019 to 31st December 2019.

VII: Volume and Price of Renewable Energy Certificates (RECs)

The concept of Renewable Energy Certificates (RECs) seeks to address mismatch between availability of renewable energy 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 electricity market.

One REC is equivalent to 1 MWh 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 was held on power exchanges in May, 2011.

The details of REC transactions for the month of October, 2019 are shown in Table-20. The market clearing volume of solar RECs transacted on IEX and PXIL were 59944 and 39636 respectively and the weighted average market clearing price of these RECs was ₹2400/MWh in IEX and ₹2400/MWh in PXIL. Market clearing volume of non-solar RECs transacted on IEX and PXIL were 388821 and 177509 respectively and the weighted

⁴Excluding Banking/Swapping contracts

average market clearing price of these RECs was ₹1650/MWh in IEX and ₹1650/MWh in PXIL. For Non-solar RECs issued before 1st April 2017, the market clearing volume on PXIL was 21529 and the weighted average market clearing price was ₹1710/MWh.

The gap between the volume of buy and sell bids of RECs placed through power exchanges shows about the variation in demand for both solar and non-solar RECs. For Solar RECs, the ratio of buy bids to sell bids was 11.00 and 6.43 in IEX and PXIL respectively. For non-solar RECs, the ratio of buy bids to sell bids was 1.36 and 1.30 in IEX and PXIL respectively.

VIII: Inferences:

- The percentage of short-term transactions of electricity to total electricity generation was 10.04%.
- Of the total short-term transactions, bilateral constitutes 45.04% (23.71% through traders and term-ahead contracts on power exchanges and 21.33% directly between distribution companies) followed by 34.25% through day ahead collective transactions on power exchanges and 20.71% through DSM.
- Top 5 trading licensees had a share of 74.63% in the total volume traded by all the trading licensees.
- The Herfindahl Hirschman Index computed for the volume of electricity traded by trading licensees was 0.1730, indicating moderate concentration of market power.
- The weighted average price of electricity transacted through trading licensees was ₹4.61/kWh. The weighted average price of electricity transacted through IEX and PXIL were ₹2.87/kWh and ₹2.48/kWh respectively.
- The average price of electricity transacted through DSM was ₹2.45/kWh.
- The weighted average trading margin charged by the trading licensees for bilateral transactions during the month was ₹0.032/kWh, where the sale price was less than or equal to ₹3/kWh and ₹0.024/kWh, when the sale price exceeded ₹3/kWh. The trading margin charged during the month was in line with the Trading Margin regulations.
- Top 5 electricity selling regional entities were Thermal Powertech Corporation India Ltd, Gujarat, Teesta Stage 3 Hydro Power Project, IL&FS and GMR Chhattisgarh Energy Limited. Top 5 electricity purchasing regional entities were Tamil Nadu, Maharashtra, Andhra Pradesh, Haryana and Uttar Pradesh.
- During the month of October 2019, both IEX and PXIL did not witness any congestion.

- In November 2019, 69.57% of the bilateral contracts were executed for duration of up to one week, 23.91% of the contracts were executed for duration of more than a week and up to one month, 6.52% of the contracts were executed for duration of more than one month and up to three month, while no contracts were executed for duration of more than three month and up to twelve months.
- The forward curves based on prices of bilateral contracts show that the prices are lower for the contracts executed in November 2019 compared to the contracts executed in October 2019, during the period from 7th November 2019 – 31st December 2019.
- The market clearing volume of solar RECs transacted on IEX and PXIL were 59944 and 39636 respectively and the weighted average market clearing price of these RECs was ₹2400/MWh in IEX and ₹2400/MWh in PXIL. Market clearing volume of non-solar RECs transacted on IEX and PXIL were 388821 and 177509 respectively and the weighted average market clearing price of these RECs was ₹1650/MWh in IEX and ₹1650/MWh in PXIL.

Table-1: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (ALL INDIA), OCTOBER 2019				
Sr. No	Short-term transactions	Volume (MUs)	% to Volume of short-term transactions	% to Total Generation
1	Bilateral	4473.00	45.04	4.52
	(i) <i>Through Traders and PXs</i>	2354.84	23.71	2.38
	(ii) <i>Direct</i>	2118.16	21.33	2.14
2	Through Power Exchanges	3401.29	34.25	3.44
	(i) <i>IEX</i>	3391.49	34.15	3.43
	(ii) <i>PXIL</i>	9.81	0.10	0.01
3	Through DSM	2056.18	20.71	2.08
	Total	9930.47	-	10.04
	Total Generation	9886.65	-	-

Source: NLDC

Figure-1: Volume of Short-term Transactions of Electricity, October 2019

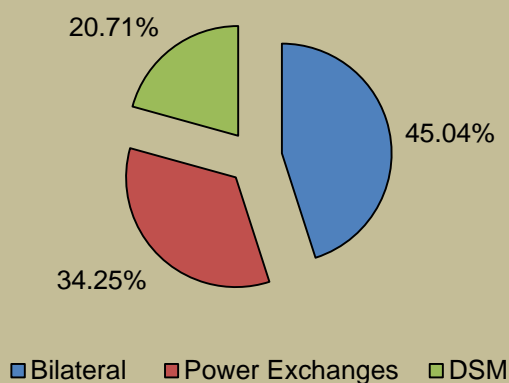
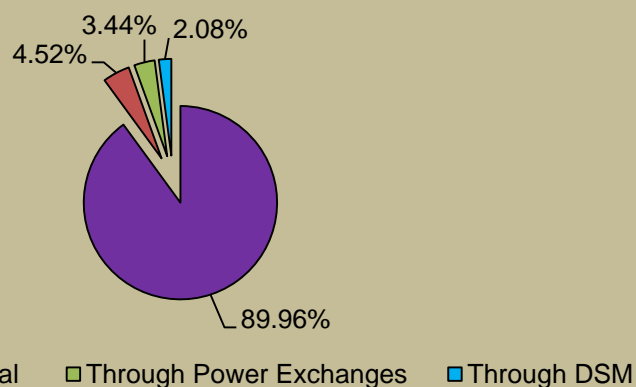


Figure-2: Volume of Various Kinds of Electricity Transactions in Total Electricity Generation, October 2019



**Figure-3: Volume of Short-term Transactions of Electricity,
October 2019 (Day-wise)**

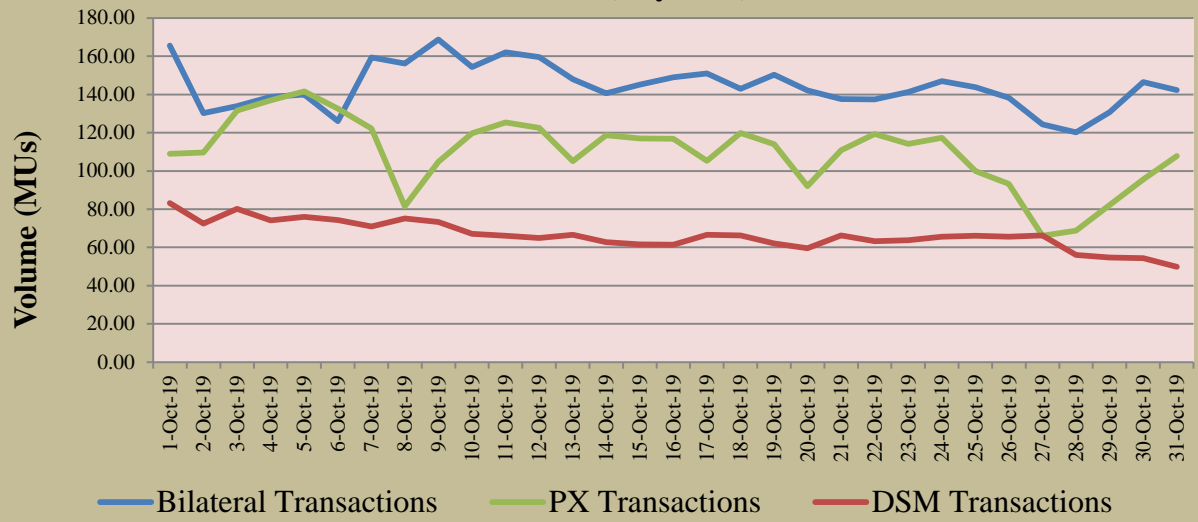


Table-2: PERCENTAGE SHARE OF ELECTRICITY TRANSACTED BY TRADING LICENSEES, OCTOBER 2019			
Sr.No	Name of the Trading Licensee	% Share in total Volume transacted by Trading Licensees	Herfindahl-Hirschman Index
1	PTC India Ltd.	34.91	0.1219
2	Manikaran Power Ltd.	13.65	0.0186
3	Adani Enterprises Ltd.	11.55	0.0133
4	Tata Power Trading Company (P) Ltd.	8.19	0.0067
5	Kreate Energy (I) Pvt. Ltd.	6.33	0.0040
6	Arunachal Pradesh Power Corporation (P) Ltd	5.68	0.0032
7	Jaiprakash Associates Ltd.	4.56	0.0021
8	NHPC Limited	3.68	0.0014
9	GMR Energy Trading Ltd.	2.93	0.0009
10	NTPC Vidyut Vyapar Nigam Ltd.	2.13	0.0005
11	Knowledge Infrastructure Systems (P) Ltd	1.18	0.0001
12	Essar Electric Power Development Corp. Ltd.	0.94	0.0001
13	JSW Power Trading Company Ltd	0.88	0.0001
14	Statkraft Markets Pvt. Ltd.	0.79	0.0001
15	Instinct Infra & Power Ltd.	0.77	0.0001
16	National Energy Trading & Services Ltd.	0.58	0.0000
17	RPG Power Trading Company Ltd.	0.34	0.0000
18	IPCL Power Trading Pvt. Ltd.	0.24	0.0000
19	Shree Cement Ltd.	0.22	0.0000
20	Gita Power & Infrastructure Private Limited	0.22	0.0000
21	Customized Energy Solutions India (P) Ltd.	0.19	0.0000
22	Phillip Commodities India (P) Ltd.	0.05	0.0000
TOTAL		100.00%	0.1730
Top 5 trading licensees		74.63%	
<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>			

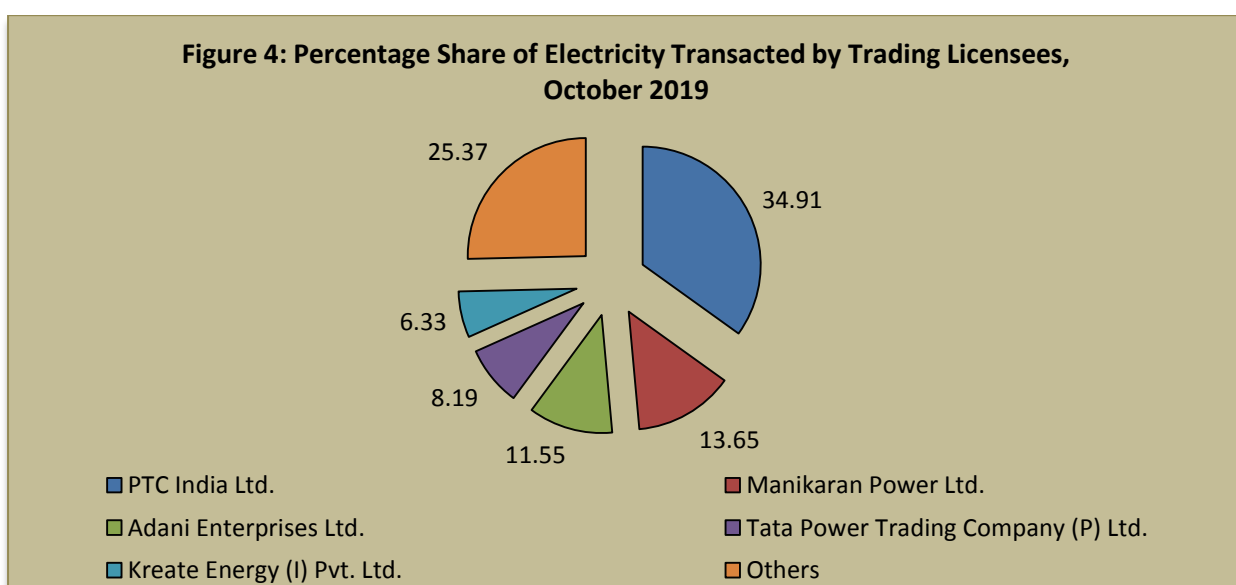


Table-3: PRICE OF ELECTRICITY TRANSACTED THROUGH TRADERS, OCTOBER 2019		
Sr.No	Item	Sale Price of Traders (₹/kWh)
1	Minimum	2.72
2	Maximum	6.96
3	Weighted Average	4.61

Source: Information submitted by trading licensees

Table-4: PRICE OF ELECTRICITY TRANSACTED THROUGH TRADERS (TIME-WISE), OCTOBER 2019		
Sr.No	Period of Trade	Sale Price of Traders (₹/kWh)
1	RTC	3.80
2	PEAK	5.64
3	OFF PEAK	5.25

Source: Information submitted by trading licensees

Table-5: PRICE OF ELECTRICITY TRANSACTED THROUGH POWER EXCHANGES, OCTOBER 2019			
Sr.No	ACP	Price in IEX (₹/kWh)	Price in PXIL (₹/kWh)
1	Minimum	0.88	2.26
2	Maximum	8.03	2.95
3	Weighted Average	2.87	2.48

Source: Information submitted by IEX and PXIL

Table-6: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF IEX, OCTOBER 2019			
Sr.No	Term ahead contracts	Actual Scheduled Volume (MUs)	Weighted Average Price (₹/kWh)
1	Intra-Day Contracts	47.07	3.91
2	Day Ahead Contingency Contracts	50.32	3.28
3	Daily Contracts	239.32	3.77
4	Weekly Contracts	101.87	3.32
	Total	438.57	3.63

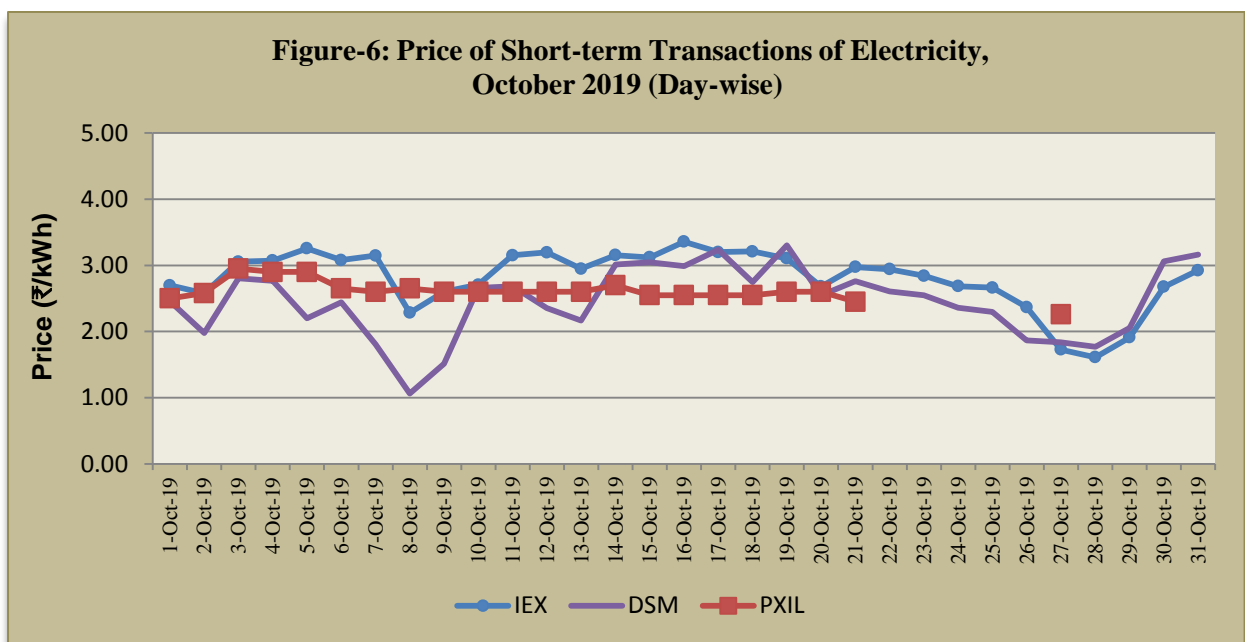
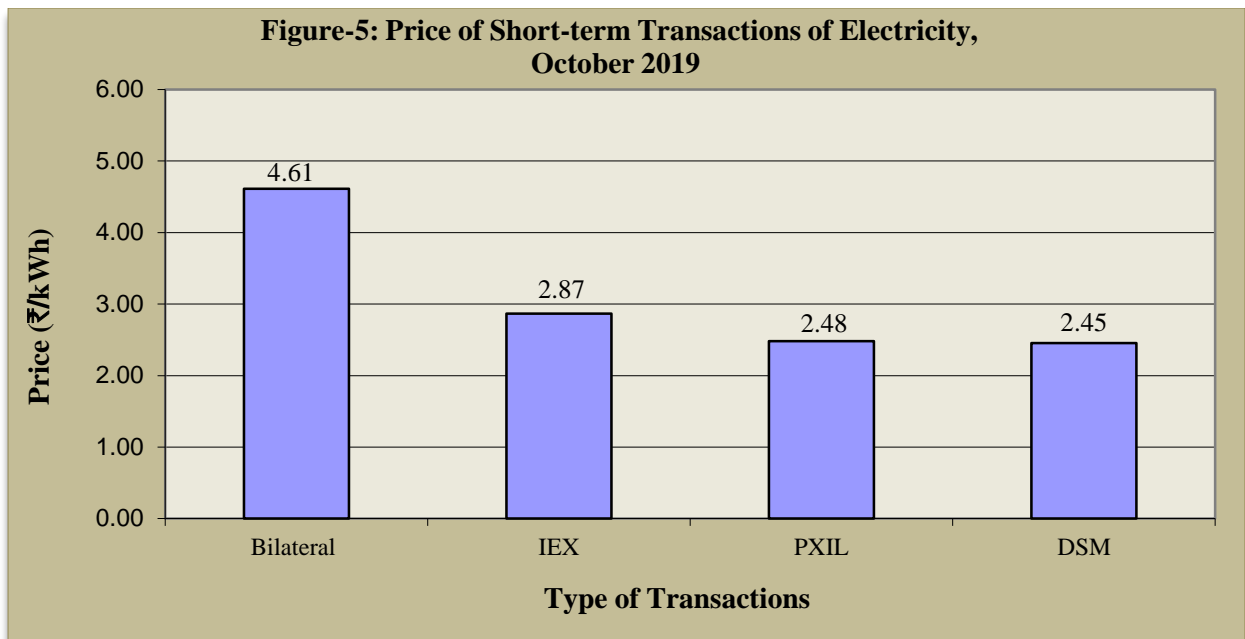
Source: IEX

Table-7: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF PXIL, OCTOBER 2019			
Sr.No	Term ahead contracts	Actual Scheduled Volume (MUs)	Weighted Average Price (₹/kWh)
1	Intra-Day Contracts	46.02	3.91
2	Any Day(s) Contracts	199.09	4.42
3	Weekly Contracts	202.11	3.55
	Total	447.21	3.97

Source: PXIL

Table-8: PRICE OF ELECTRICITY TRANSACTED THROUGH DSM, OCTOBER 2019		
Sr.No	Item	Price in All India Grid (₹/kWh)
1	Minimum	0.00
2	Maximum	8.00
3	Average	2.45

Source: NLDC



Note: In PXIL, no transactions were recorded on 22nd–26th and 28th–31st October 2019

Table-9: VOLUME OF ELECTRICITY SOLD THROUGH BILATERAL, OCTOBER 2019		
Name of the Entity	Volume of Sale (MUs)	% of Volume
GUJARAT	803.66	17.87
THERMAL POWERTECH	384.79	8.56
IL&FS	344.30	7.66
WEST BENGAL	272.95	6.07
GMR CHATTISGARH	263.16	5.85
KSK MAHANADI	210.31	4.68
ESSAR POWER	203.52	4.53
RAJASTHAN	203.16	4.52
CHHATTISGARH	183.34	4.08
SKS POWER	157.30	3.50
MB POWER	150.39	3.34
DVC	147.19	3.27
ADHUNIK POWER LTD	105.06	2.34
HIMACHAL PRADESH	102.35	2.28
PUNJAB	101.76	2.26
JAYPEE NIGRIE	91.65	2.04
DB POWER	90.44	2.01
ODISHA	80.73	1.80
DAGACHU	63.45	1.41
DELHI	60.20	1.34
MP	57.81	1.29
J & K	47.36	1.05
CHUZACHEN HEP	43.72	0.97
JINDAL POWER	39.02	0.87
ONGC PALATANA	38.29	0.85
KARNATAKA	26.02	0.58
MEGHALAYA	25.44	0.57
TELANGANA	22.33	0.50
DIKCHU HEP	20.13	0.45
TASHIDENG HEP	19.65	0.44
JORETHANG	19.61	0.44
ACBIL	19.45	0.43
SIKKIM	18.90	0.42
BIHAR	14.97	0.33
UTTAR PRADESH	14.60	0.32
JHABUA POWER_MP	10.26	0.23
ANDHRA PRADESH	7.52	0.17
MAHARASHTRA	6.83	0.15
JINDAL STAGE-II	6.10	0.14
TAMIL NADU	3.65	0.08
TEESTA STG3	3.39	0.08
HARYANA	2.90	0.06
COASTGEN	2.89	0.06
NTPC STATIONS-NER	2.72	0.06
JHARKHAND	0.82	0.02
MANIPUR	0.59	0.01
NTPC STATIONS-ER	0.51	0.01
TRN ENERGY	0.49	0.01
DADRA & NAGAR HAVELI	0.45	0.01
Total	4496.09	100.00
Volume Sold by top 5 Regional Entities	2068.86	46.01

Table-10: VOLUME OF ELECTRICITY PURCHASED THROUGH BILATERAL, OCTOBER 2019

Name of the Entity	Volume of Purchase (MUs)	% of Volume
ANDHRA PRADESH	593.96	13.28
TAMIL NADU	577.30	12.91
HARYANA	528.10	11.81
UTTAR PRADESH	500.20	11.18
MAHARASHTRA	444.26	9.93
WEST BENGAL	350.87	7.84
MP	343.31	7.68
CHHATTISGARH	252.19	5.64
ESSAR STEEL	180.97	4.05
BANGLADESH	142.56	3.19
GUJARAT	124.25	2.78
JHARKHAND	106.59	2.38
BIHAR	73.38	1.64
HIMACHAL PRADESH	67.81	1.52
DELHI	51.50	1.15
ASSAM	39.58	0.88
TELANGANA	25.66	0.57
DVC	24.31	0.54
GOA	24.08	0.54
NEPAL(NVVN)	15.68	0.35
ODISHA	6.44	0.14
TOTAL	4473.00	100.00
Volume Purchased by top 5 Regional Entities	2643.82	59.11

Table-11: VOLUME OF ELECTRICITY SOLD THROUGH POWER EXCHANGES, OCTOBER 2019		
Name of the Entity	Volume of Sale (MUs)	% of Volume
MP	500.02	14.70
TEESTA STG3	415.98	12.23
KARNATAKA	316.75	9.31
HIMACHAL PRADESH	184.67	5.43
SEMBICORP	149.92	4.41
ASSAM	139.87	4.11
NLC	133.58	3.93
THERMAL POWERTECH	85.16	2.50
ODISHA	84.57	2.49
RAJASTHAN	80.01	2.35
JHARKHAND	77.91	2.29
UTTAR PRADESH	74.60	2.19
JAYPEE NIGRIE	70.54	2.07
CHHATTISGARH	68.85	2.02
TELANGANA	65.94	1.94
DELHI	56.97	1.68
GMR CHATTISGARH	49.79	1.46
GUJARAT	49.10	1.44
HARYANA	46.55	1.37
TASHIDENG HEP	41.63	1.22
JORETHANG	40.70	1.20
MEGHALAYA	37.34	1.10
AD HYDRO	34.50	1.01
UTTARAKHAND	34.23	1.01
MAHARASHTRA	34.17	1.00
SPECTRUM	31.72	0.93
DIKCHU HEP	31.69	0.93
SIKKIM	31.18	0.92
MIZORAM	31.03	0.91
KARCHAM WANGTOO	30.51	0.90
MB POWER	29.46	0.87
SAINJ HEP	29.30	0.86
DB POWER	28.98	0.85
CHANDIGARH	27.91	0.82
JHABUA POWER_MP	26.02	0.76
ANDHRA PRADESH	23.84	0.70
TRIPURA	21.17	0.62
BIHAR	19.82	0.58
NTPC STATIONS-WR	16.84	0.50
ARUNACHAL PRADESH	13.70	0.40
MARUTI COAL	12.09	0.36
TAMIL NADU	11.61	0.34
PUNJAB	11.17	0.33
ACBIL	10.12	0.30
ESSAR POWER	8.18	0.24
GOA	8.12	0.24
CHUZACHEN HEP	7.19	0.21
NTPC STATIONS-ER	7.13	0.21

NTPC STATIONS-NER	6.75	0.20
JINDAL POWER	6.63	0.19
WEST BENGAL	6.50	0.19
J & K	5.50	0.16
SKS POWER	5.09	0.15
MANIPUR	4.09	0.12
NTPC STATIONS-SR	3.98	0.12
KERALA	3.72	0.11
ONGC PALATANA	3.64	0.11
IL&FS	3.24	0.10
MALANA	2.21	0.06
LANCO BUDHIL	1.85	0.05
ADHUNIK POWER LTD	1.81	0.05
NAGALAND	1.25	0.04
NTPC STATIONS-NR	1.20	0.04
RGPP (DABHOL)	0.71	0.02
DADRA & NAGAR HAVELI	0.43	0.01
DHARIWAL POWER	0.16	0.005
DVC	0.12	0.004
EMCO	0.12	0.003
BRBCL,NABINAGAR	0.08	0.002
DGEN MEGA POWER	0.07	0.002
Total	3401.29	100.00
Volume sold by top 5 Regional Entities	1567.34	46.08

Table-12: VOLUME OF ELECTRICITY PURCHASED THROUGH POWER EXCHANGES, OCTOBER 2019		
Name of the Entity	Volume of Purchase (MUs)	% of Volume
MAHARASHTRA	417.69	12.28
GUJARAT	311.94	9.17
TAMIL NADU	301.80	8.87
DELHI	258.71	7.61
DVC	239.35	7.04
ANDHRA PRADESH	231.47	6.81
BIHAR	185.49	5.45
HARYANA	164.80	4.85
WEST BENGAL	162.44	4.78
TELANGANA	161.24	4.74
J & K	123.08	3.62
KARNATAKA	106.09	3.12
RAJASTHAN	105.85	3.11
UTTARAKHAND	103.06	3.03
DADRA & NAGAR HAVELI	73.54	2.16
UTTAR PRADESH	67.10	1.97
ODISHA	62.82	1.85
ASSAM	55.33	1.63
KERALA	53.85	1.58
HIMACHAL PRADESH	42.70	1.26
CHHATTISGARH	41.99	1.23
DAMAN AND DIU	40.24	1.18
GOA	27.86	0.82
PUNJAB	21.71	0.64
MEGHALAYA	20.88	0.61
JHARKHAND	9.57	0.28
MP	4.68	0.14
NAGALAND	3.81	0.11
MANIPUR	1.20	0.04
ARUNACHAL PRADESH	0.49	0.01
CHANDIGARH	0.39	0.01
TRIPURA	0.12	0.004
TOTAL	3401.29	100.00
Volume purchased by top 5 Regional Entities	1529.49	44.97

Table-13: VOLUME OF ELECTRICITY UNDER DRAWAL (EXPORTED) THROUGH DSM, OCTOBER 2019		
Name of the Entity	Volume of Under drawal (MUs)	% of Volume
OPGC	210.60	10.40
CHUKHA HEP	119.96	5.92
MP	92.59	4.57
NTPC STATIONS-WR	90.46	4.47
RAJASTHAN	80.50	3.98
TELANGANA	79.45	3.92
KARNATAKA	76.81	3.79
BIHAR	74.96	3.70
NHPC STATIONS	73.58	3.63
MAHARASHTRA	65.99	3.26
SASAN UMPP	64.92	3.21
GUJARAT	61.43	3.03
NTPC STATIONS-NR	57.95	2.86
TAMIL NADU	57.91	2.86
UTTAR PRADESH	50.03	2.47
NLC	46.18	2.28
ANDHRA PRADESH	45.23	2.23
J & K	42.86	2.12
NTPC STATIONS-ER	34.39	1.70
PUNJAB	32.74	1.62
HARYANA	32.16	1.59
DELHI	24.50	1.21
WEST BENGAL	22.40	1.11
KURICHU HEP	20.35	1.01
NTPC STATIONS-SR	20.34	1.00
CHHATTISGARH	19.67	0.97
JHARKHAND	19.61	0.97
ESSAR STEEL	19.46	0.96
HIMACHAL PRADESH	15.18	0.75
NAPP	14.79	0.73
BBMB	14.41	0.71
GOA	13.68	0.68
UTTARAKHAND	12.20	0.60
PONDICHERRY	11.00	0.54
TRIPURA	10.86	0.54
GIWEL_BHUI	10.56	0.52
ARUNACHAL PRADESH	10.12	0.50
TEESTA HEP	10.04	0.50
OSTRO	9.75	0.48
DVC	8.82	0.44
RAMPUR HEP	7.85	0.39
NJPC	7.64	0.38
MB POWER	7.51	0.37
NEEPCO STATIONS	7.36	0.36
RENEW_BHACHAU	7.27	0.36

SB_SLR	6.98	0.34
ODISHA	6.72	0.33
BRBCL,NABINAGAR	6.65	0.33
ASSAM	6.50	0.32
DADRA & NAGAR HAVELI	6.34	0.31
MANGDECHU HEP	6.14	0.30
RAIL	5.86	0.29
CGPL	5.59	0.28
MAITHON POWER LTD	5.50	0.27
ARINSUM_RUMS	4.98	0.25
JAYPEE NIGRIE	4.82	0.24
MAHINDRA_RUMS	4.64	0.23
KARCHAM WANGTOO	4.59	0.23
BANGLADESH	4.58	0.23
AZURE_SLR	4.47	0.22
ACME_RUMS	4.43	0.22
SIKKIM	4.19	0.21
NAGALAND	4.02	0.20
NEPAL(NVVN)	4.00	0.20
MAHOBIA_SLR	3.93	0.19
KERALA	3.83	0.19
MEGHALAYA	3.72	0.18
MIZORAM	3.68	0.18
NTPC STATIONS-NER	3.64	0.18
ACBIL	3.62	0.18
THERMAL POWERTECH	3.59	0.18
TEESTA STG3	3.51	0.17
BARC	3.47	0.17
TEHRI	3.43	0.17
CHANDIGARH	3.41	0.17
LANKO_AMK	2.96	0.15
AZURE34_SLR	2.94	0.15
NPGC	2.86	0.14
TATA_SLR	2.85	0.14
RGPP (DABHOL)	2.78	0.14
RANGANADI HEP	2.42	0.12
IGSTPS	2.13	0.10
EMCO	2.06	0.10
JINDAL POWER	2.02	0.10
KISHANGANGA HEP	1.93	0.10
NTPL	1.84	0.09
KSK MAHANADI	1.84	0.09
MANIPUR	1.84	0.09
COASTGEN	1.77	0.09
KOTESHWAR	1.77	0.09
AD HYDRO	1.73	0.09
RAP B	1.63	0.08
SEMBICORP	1.58	0.08
DIKCHU HEP	1.42	0.07

TASHIDENG HEP	1.34	0.07
JINDAL STAGE-II	1.33	0.07
JITPL	1.28	0.06
CHUZACHEN HEP	1.21	0.06
SKS POWER	1.20	0.06
BALCO	1.18	0.06
MTPS II	1.15	0.06
DAMAN AND DIU	1.08	0.05
JHABUA POWER_MP	1.04	0.05
DB POWER	1.01	0.05
GMR CHATTISGARH	0.99	0.05
LOKTAK	0.99	0.05
RAP C	0.99	0.05
SAINJ HEP	0.94	0.05
ESSAR POWER	0.93	0.05
DHARIWAL POWER	0.92	0.05
GMR KAMALANGA	0.87	0.04
ADHUNIK POWER LTD	0.83	0.04
NSPCL	0.82	0.04
PARE HEP	0.74	0.04
RANGIT HEP	0.72	0.04
ONGC PALATANA	0.70	0.03
INOX_BHUJ	0.68	0.03
RKM POWER	0.63	0.03
ACME_SLR	0.63	0.03
LANCO BUDHIL	0.57	0.03
NETCL VALLUR	0.53	0.03
DOYANG HEP	0.38	0.02
RENEW_SLR	0.34	0.02
HVDC CHAMPA	0.27	0.01
DAGACHU	0.25	0.01
JORETHANG	0.23	0.01
NFF	0.22	0.01
IL&FS	0.16	0.01
MALANA	0.15	0.01
TRN ENERGY	0.05	0.002
SHREE CEMENT	0.04	0.002
DGEN MEGA POWER	0.04	0.002
TALA HEP	0.02	0.001
DCPP	0.02	0.001
Total	2024.75	100.00
Volume Exported by top 5 Regional Entities	594.11	29.34

Table-14: VOLUME OF ELECTRICITY OVER DRAWAL (IMPORTED) THROUGH DSM, OCTOBER 2019		
Name of the Entity	Volume of Over drawal (MUs)	% of Volume
ODISHA	192.93	9.24
TALA HEP	182.53	8.75
NTPC STATIONS-WR	119.93	5.75
TAMIL NADU	77.34	3.71
UTTAR PRADESH	70.09	3.36
RAJASTHAN	59.66	2.86
MANGDECHU HEP	56.41	2.70
DVC	55.77	2.67
WEST BENGAL	54.67	2.62
HARYANA	53.50	2.56
NTPC STATIONS-NR	52.86	2.53
MAHARASHTRA	51.21	2.45
GUJARAT	51.05	2.45
CHHATTISGARH	46.34	2.22
MTPS II	42.93	2.06
KARNATAKA	42.73	2.05
CGPL	41.73	2.00
ANDHRA PRADESH	41.28	1.98
KERALA	39.90	1.91
NTPC STATIONS-ER	38.67	1.85
NTPC STATIONS-SR	34.61	1.66
PUNJAB	32.65	1.56
UTTARAKHAND	27.86	1.34
ESSAR STEEL	27.54	1.32
BIHAR	26.92	1.29
DB POWER	24.64	1.18
TELANGANA	23.94	1.15
ASSAM	23.33	1.12
RGPL (DABHOL)	23.31	1.12
HIMACHAL PRADESH	21.17	1.01
MP	20.52	0.98
GMR CHATTISGARH	19.06	0.91
DAMAN AND DIU	17.66	0.85
JHABUA POWER_MP	17.17	0.82
J & K	16.42	0.79
NHPC STATIONS	16.26	0.78
NLC	15.67	0.75
JHARKHAND	12.74	0.61
TEESTA STG3	11.85	0.57
MB POWER	11.06	0.53
DAGACHU	10.54	0.51
DELHI	9.80	0.47
NETCL VALLUR	9.76	0.47
IL&FS	8.19	0.39
EMCO	7.98	0.38
BALCO	7.80	0.37
GIWEL_BHUJ	7.37	0.35

CHANDIGARH	6.93	0.33
ADHUNIK POWER LTD	6.85	0.33
TRIPURA	6.23	0.30
OSTRO	6.11	0.29
THERMAL POWERTECH	5.86	0.28
MAHINDRA_RUMS	5.85	0.28
MEGHALAYA	5.76	0.28
RAP B	5.51	0.26
JINDAL STAGE-II	5.49	0.26
KSK MAHANADI	5.38	0.26
NAPP	5.13	0.25
KARCHAM WANGTOO	5.05	0.24
NEPAL(NVVN)	4.99	0.24
BRBCL,NABINAGAR	4.85	0.23
SEMBCORP	4.78	0.23
DADRA & NAGAR HAVELI	4.77	0.23
NTPC STATIONS-NER	4.34	0.21
NJPC	4.22	0.20
SB_SLR	4.04	0.19
JORETHANG	3.89	0.19
RENEW_BHACHAU	3.85	0.18
BBMB	3.80	0.18
NPGC	3.55	0.17
ACME_RUMS	3.54	0.17
DIKCHU HEP	3.48	0.17
GOA	3.41	0.16
KAPP 3&4	3.40	0.16
JITPL	3.40	0.16
MANIPUR	3.36	0.16
BANGLADESH	3.35	0.16
IGSTPS	3.31	0.16
MAITHON POWER LTD	3.20	0.15
PONDICHERRY	3.17	0.15
NTPL	3.04	0.15
TATA_SLR	3.03	0.15
ARINSUM_RUMS	3.02	0.14
RKM POWER	2.93	0.14
MAHOBA_SLR	2.92	0.14
ESSAR POWER	2.82	0.14
AZURE_SLR	2.74	0.13
SIKKIM	2.72	0.13
ONGC PALATANA	2.71	0.13
AZURE34_SLR	2.59	0.12
ARUNACHAL PRADESH	2.59	0.12
COASTGEN	2.31	0.11
ACBIL	2.22	0.11
SKS POWER	2.19	0.10
RAP C	2.12	0.10
MIZORAM	2.05	0.10
NSPCL	2.05	0.10
TASHIDENG HEP	1.95	0.09

TEHRI	1.92	0.09
RAIL	1.88	0.09
CHUZACHEN HEP	1.79	0.09
NEEPCO STATIONS	1.72	0.08
KOTESHWAR	1.57	0.08
SASAN UMPP	1.45	0.07
GMR KAMALANGA	1.37	0.07
INOX_BHUJ	1.35	0.06
DGEN MEGA POWER	1.33	0.06
HVDC CHAMPA	1.32	0.06
NAGALAND	1.25	0.06
JAYPEE NIGRIE	1.14	0.05
AD HYDRO	1.10	0.05
RENEW_SLR	0.98	0.05
TRN ENERGY	0.95	0.05
LANKO_AMK	0.89	0.04
DHARIWAL POWER	0.88	0.04
JINDAL POWER	0.82	0.04
KORBA WEST POWER	0.72	0.03
RANGANADI HEP	0.66	0.03
KISHANGANGA HEP	0.66	0.03
MEENAKSHI	0.61	0.03
SAINJ HEP	0.58	0.03
LANKO KONDAPALLI	0.58	0.03
KURICHU HEP	0.55	0.03
SIMHAPURI	0.54	0.03
OPGC	0.52	0.02
RAMPUR HEP	0.51	0.02
LOKTAK	0.41	0.02
MALANA	0.38	0.02
TEESTA HEP	0.37	0.02
SHREE CEMENT	0.35	0.02
ACME_SLR	0.31	0.02
LANCO BUDHIL	0.25	0.01
PARE HEP	0.25	0.01
RANGIT HEP	0.22	0.01
NFF	0.18	0.01
DOYANG HEP	0.18	0.01
NEP	0.07	0.003
DCPP	0.04	0.002
CHUKHA HEP	0.02	0.001
BARC	0.0001	0.00001
TOTAL	2086.88	100.00
Volume Imported by top 5 Regional Entities	642.81	30.80

Table-15: TOTAL VOLUME OF NET SHORT-TERM TRANSACTIONS OF ELECTRICITY (REGIONAL ENTITY-WISE), OCTOBER 2019		
S. No.	Name of the Entity	Total volume of net short-term transactions of electricity*
1	TAMIL NADU	883.27
2	MAHARASHTRA	806.17
3	ANDHRA PRADESH	790.12
4	HARYANA	664.80
5	UTTAR PRADESH	498.15
6	WEST BENGAL	266.13
7	ESSAR STEEL	189.06
8	TALA HEP	182.50
9	DELHI	178.34
10	BIHAR	176.04
11	DVC	163.30
12	BANGLADESH	141.32
13	ODISHA	90.17
14	KERALA	86.20
15	UTTARAKHAND	84.50
16	DADRA & NAGAR HAVELI	71.08
17	CHHATTISGARH	68.66
18	DAMAN AND DIU	56.83
19	MANGDECHU HEP	50.27
20	J & K	43.79
21	TELANGANA	43.11
22	MTPS II	41.78
23	CGPL	36.14
24	GOA	33.55
25	JHARKHAND	30.56
26	RGPPL (DABHOL)	19.81
27	NEPAL(NVVN)	16.67
28	NTPC STATIONS-WR	12.63
29	NTPC STATIONS-SR	10.29
30	NETCL VALLUR	9.23
31	BALCO	6.63
32	EMCO	5.80
33	RAP B	3.88
34	KAPP 3&4	3.40
35	RKM POWER	2.30
36	JITPL	2.12
37	NSPCL	1.23
38	DGEN MEGA POWER	1.22
39	MAHINDRA_RUMS	1.21
40	NTPL	1.20
41	IGSTPS	1.18
42	RAP C	1.14
43	HVDC CHAMPA	1.05
44	KORBA WEST POWER	0.72
45	NPGC	0.70
46	INOX_BHUJ	0.67
47	RENEW_SLR	0.63
48	MEENAKSHI	0.61

49	LANKO KONDAPALLI	0.58
50	SIMHAPURI	0.54
51	GMR KAMALANGA	0.49
52	TRN ENERGY	0.42
53	SHREE CEMENT	0.31
54	TATA_SLR	0.18
55	NEP	0.07
56	DCPP	0.01
57	NFF	-0.04
58	DHARIWAL POWER	-0.19
59	KOTESHWAR	-0.20
60	DOYANG HEP	-0.20
61	NAGALAND	-0.22
62	ACME_SLR	-0.32
63	AZURE34_SLR	-0.36
64	PARE HEP	-0.49
65	RANGIT HEP	-0.50
66	LOKTAK	-0.58
67	ACME_RUMS	-0.89
68	MAHOBA_SLR	-1.01
69	KISHANGANGA HEP	-1.27
70	TEHRI	-1.52
71	AZURE_SLR	-1.74
72	RANGANADI HEP	-1.75
73	BRBCL,NABINAGAR	-1.87
74	JINDAL STAGE-II	-1.94
75	ARINSUM_RUMS	-1.96
76	MANIPUR	-1.96
77	MALANA	-1.98
78	LANKO_AMK	-2.07
79	LANCO BUDHIL	-2.16
80	MAITHON POWER LTD	-2.30
81	COASTGEN	-2.35
82	SB_SLR	-2.94
83	GIWEL_BHUJ	-3.19
84	NTPC STATIONS-ER	-3.35
85	NJPC	-3.42
86	RENEW_BHACHAU	-3.42
87	BARC	-3.47
88	OSTRO	-3.64
89	RAIL	-3.97
90	NEEPCO STATIONS	-5.64
91	NTPC STATIONS-NR	-6.29
92	RAMPUR HEP	-7.34
93	PONDICHERRY	-7.84
94	NTPC STATIONS-NER	-8.78
95	NAPP	-9.66
96	TEESTA HEP	-9.66
97	BBMB	-10.61
98	MARUTI COAL	-12.09
99	KURICHU HEP	-19.80
100	JHABUA POWER_MP	-20.15

101	ARUNACHAL PRADESH	-20.74
102	CHANDIGARH	-24.00
103	TRIPURA	-25.68
104	ASSAM	-28.14
105	SAINJ HEP	-29.65
106	KARCHAM WANGTOO	-30.04
107	ACBIL	-30.97
108	SPECTRUM	-31.72
109	MIZORAM	-32.66
110	AD HYDRO	-35.14
111	MEGHALAYA	-39.87
112	ONGC PALATANA	-39.92
113	JINDAL POWER	-46.85
114	DIKCHU HEP	-49.75
115	CHUZACHEN HEP	-50.32
116	SIKKIM	-51.55
117	DAGACHU	-53.15
118	JORETHANG	-56.65
119	NHPC STATIONS	-57.31
120	TASHIDENG HEP	-60.67
121	SASAN UMPP	-63.48
122	PUNJAB	-91.30
123	DB POWER	-95.79
124	ADHUNIK POWER LTD	-100.84
125	CHUKHA HEP	-119.94
126	SEMBCORP	-146.72
127	SKS POWER	-161.40
128	NLC	-164.09
129	JAYPEE NIGRIE	-165.87
130	HIMACHAL PRADESH	-170.52
131	MB POWER	-176.29
132	RAJASTHAN	-198.17
133	KSK MAHANADI	-206.77
134	ESSAR POWER	-209.81
135	OPGC	-210.09
136	KARNATAKA	-270.76
137	MP	-281.90
138	GMR CHATTISGARH	-294.89
139	IL&FS	-339.51
140	TEESTA STG3	-411.03
141	GUJARAT	-426.94
142	THERMAL POWERTECH	-467.67
* 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, OCTOBER 2019			
	Details of Congestion	IEX	PXIL
A	Unconstrained Cleared Volume (MUs)	3391.49	9.81
B	Actual Cleared Volume and hence scheduled (MUs)	3391.49	9.81
C	Volume of electricity that could not be cleared and hence not scheduled because of congestion (MUs)	0.00	0.00
D	Volume of electricity that could not be cleared and hence not scheduled because of reasons other than congestion (MUs)	0.00	0.00
E	Volume of electricity that could not be cleared as % to Unconstrained Cleared Volume	0.00%	0.00%
F	Percentage of the time congestion occurred during the month (Number of hours congestion occurred/Total number of hours in the month)	0.00%	0.00%
G	Congestion occurrence (%) time block wise		
	0.00 - 6.00 hours	0.00%	0.00%
	6.00 - 12.00 hours	0.00%	0.00%
	12.00 - 18.00 hours	0.00%	0.00%
	18.00 - 24.00 hours	0.00%	0.00%
<i>Source: IEX & PXIL & NLDC</i>			

Table-17: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY IN INDIA (DAY-WISE) (MUs), OCTOBER 2019

Date	Bilateral		Power Exchange (Area Clearing Volume [#] of Day Ahead Market)		Deviation Settlement (Over Drawl + Under Generation)	Total Electricity Generation (MU) as given at CEA Website*
	Through Traders and PXs**	Direct	IEX	PXIL		
1-Oct-19	94.23	71.37	108.83	0.07	83.25	3156.67
2-Oct-19	70.91	59.28	104.82	4.80	72.52	3126.76
3-Oct-19	69.80	64.04	131.53	0.07	80.10	3301.30
4-Oct-19	72.43	66.36	136.86	0.07	74.16	3330.61
5-Oct-19	72.22	67.66	141.48	0.07	76.05	3357.28
6-Oct-19	62.55	63.48	132.44	0.10	74.34	3235.69
7-Oct-19	85.91	73.44	122.18	0.09	70.98	3235.05
8-Oct-19	80.39	75.77	81.40	0.09	75.09	3078.89
9-Oct-19	88.81	79.94	104.64	0.10	73.28	3241.09
10-Oct-19	75.56	78.72	119.67	0.08	67.03	3389.97
11-Oct-19	81.40	80.69	125.24	0.10	66.03	3427.99
12-Oct-19	80.25	79.29	122.37	0.09	64.90	3428.21
13-Oct-19	77.94	70.11	104.94	0.10	66.56	3309.78
14-Oct-19	73.21	67.41	118.51	0.09	62.73	3443.38
15-Oct-19	78.54	66.64	116.99	0.09	61.55	3475.11
16-Oct-19	80.49	68.48	116.73	0.09	61.48	3486.61
17-Oct-19	84.76	66.16	105.23	0.07	66.61	3491.01
18-Oct-19	77.70	65.31	119.75	0.07	66.29	3414.79
19-Oct-19	87.80	62.44	113.97	0.06	62.16	3315.14
20-Oct-19	78.77	63.42	91.97	0.08	59.55	3161.46
21-Oct-19	71.95	65.68	110.66	0.08	66.27	3179.19
22-Oct-19	71.34	66.03	119.38	0.00	63.23	3217.70
23-Oct-19	74.78	66.56	114.14	0.00	63.70	3177.79
24-Oct-19	72.22	74.75	117.38	0.00	65.59	3085.01
25-Oct-19	71.60	72.25	100.00	0.00	66.04	3013.96
26-Oct-19	69.35	68.90	93.26	0.00	65.59	2871.20
27-Oct-19	61.36	63.02	62.75	3.35	66.19	2738.44
28-Oct-19	65.29	54.84	68.74	0.00	55.99	2677.14
29-Oct-19	70.21	60.53	82.23	0.00	54.64	2747.87
30-Oct-19	77.19	69.27	95.61	0.00	54.35	2845.16
31-Oct-19	75.89	66.31	107.79	0.00	49.91	2926.40
Total	2354.84	2118.16	3391.49	9.81	2056.18	98886.65
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 (DAY-WISE) (₹/kWh), OCTOBER 2019									
Market Segment	Day ahead market of IEX			Day ahead market of PXIL			Under Drawl/Over Drawl from the Grid (DSM)		
Date	Mini mum ACP	Maxi mum ACP	Weighted Average Price*	Mini mum ACP	Maxi mum ACP	Weighted Average Price*	All India Grid		
							Mini mum Price	Maxim um Price	Average Price**
1-Oct-19	1.45	5.00	2.70	2.50	2.50	2.50	0.00	8.00	2.46
2-Oct-19	1.50	4.22	2.58	2.58	2.58	2.58	0.00	8.00	1.98
3-Oct-19	2.00	6.66	3.05	2.95	2.95	2.95	0.00	8.00	2.80
4-Oct-19	2.35	7.00	3.07	2.90	2.90	2.90	0.00	6.73	2.77
5-Oct-19	2.50	7.45	3.26	2.90	2.90	2.90	0.00	4.65	2.20
6-Oct-19	2.21	5.40	3.08	2.65	2.65	2.65	0.00	6.40	2.44
7-Oct-19	2.31	8.03	3.15	2.60	2.60	2.60	0.00	5.20	1.81
8-Oct-19	1.25	3.28	2.28	2.65	2.65	2.65	0.00	4.73	1.06
9-Oct-19	1.67	4.63	2.60	2.60	2.60	2.60	0.00	4.90	1.51
10-Oct-19	2.00	4.71	2.71	2.60	2.60	2.60	0.52	8.00	2.66
11-Oct-19	2.50	7.44	3.15	2.60	2.60	2.60	0.00	8.00	2.68
12-Oct-19	2.55	7.51	3.20	2.60	2.60	2.60	0.00	5.85	2.35
13-Oct-19	2.44	4.26	2.95	2.60	2.60	2.60	0.00	5.12	2.16
14-Oct-19	2.20	5.52	3.16	2.70	2.70	2.70	0.00	7.38	3.01
15-Oct-19	2.46	5.20	3.12	2.55	2.55	2.55	0.00	7.06	3.05
16-Oct-19	2.53	8.02	3.36	2.55	2.55	2.55	0.00	6.21	2.99
17-Oct-19	2.68	5.75	3.20	2.55	2.55	2.55	0.00	7.39	3.23
18-Oct-19	2.50	5.70	3.21	2.55	2.55	2.55	0.00	5.57	2.75
19-Oct-19	2.50	5.75	3.11	2.60	2.60	2.60	0.00	7.38	3.30
20-Oct-19	2.00	3.67	2.68	2.60	2.60	2.60	0.00	6.66	2.55
21-Oct-19	2.30	4.27	2.98	2.45	2.45	2.45	0.00	7.36	2.76
22-Oct-19	2.50	4.41	2.94	-	-	-	0.00	6.09	2.61
23-Oct-19	2.27	4.23	2.84	-	-	-	0.00	6.38	2.55
24-Oct-19	2.44	4.00	2.68	-	-	-	0.00	8.00	2.36
25-Oct-19	2.00	4.20	2.66	-	-	-	0.00	8.00	2.29
26-Oct-19	1.50	3.16	2.37	-	-	-	0.00	6.23	1.86
27-Oct-19	1.00	3.00	1.73	2.26	2.26	2.26	0.00	6.42	1.84
28-Oct-19	0.88	2.99	1.61	-	-	-	0.00	5.56	1.77
29-Oct-19	1.00	3.54	1.91	-	-	-	0.00	7.23	2.05
30-Oct-19	1.89	4.20	2.67	-	-	-	0.00	6.99	3.06
31-Oct-19	2.30	4.40	2.92	-	-	-	0.00	8.00	3.16
	0.88[#]	8.03[#]	2.87	2.26[#]	2.95[#]	2.48	0.00[#]	8.00[#]	2.45
Source: Data on price of PX transactions from IEX and PXIL and data on DSM 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 DSM of 96 time blocks of 15 minutes each in a day. DSM price includes Ceiling DSM Rate +40% additional DSM charge.									
# Maximum/Minimum in the month									

Table-19: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (REGIONAL ENTITY*- WISE) (MUs), OCTOBER 2019										
Name of the Entity	Through Bilateral			Through Power Exchange			Through DSM with Regional Grid			Total Net***
	Sale	Purchase	Net**	Sale	Purchase	Net**	Import (Over Drawl)	Export (Under Drawl)	Net**	
PUNJAB	101.76	0.00	-101.76	11.17	21.71	10.55	32.65	32.74	-0.09	-91.30
HARYANA	2.90	528.10	525.20	46.55	164.80	118.25	53.50	32.16	21.35	664.80
RAJASTHAN	203.16	0.00	-203.16	80.01	105.85	25.83	59.66	80.50	-20.84	-198.17
DELHI	60.20	51.50	-8.70	56.97	258.71	201.74	9.80	24.50	-14.70	178.34
U P	14.60	500.20	485.60	74.60	67.10	-7.50	70.09	50.03	20.05	498.15
UTTARAKHAND	0.00	0.00	0.00	34.23	103.06	68.83	27.86	12.20	15.67	84.50
HIMACHAL P	102.35	67.81	-34.54	184.67	42.70	-141.97	21.17	15.18	6.00	-170.52
J & K	47.36	0.00	-47.36	5.50	123.08	117.59	16.42	42.86	-26.44	43.79
CHANDIGARH	0.00	0.00	0.00	27.91	0.39	-27.52	6.93	3.41	3.52	-24.00
MP	57.81	343.31	285.51	500.02	4.68	-495.34	20.52	92.59	-72.07	-281.90
MAHARASHTRA	6.83	444.26	437.43	34.17	417.69	383.52	51.21	65.99	-14.78	806.17
GUJARAT	803.66	124.25	-679.40	49.10	311.94	262.84	51.05	61.43	-10.38	-426.94
CHHATTISGARH	183.34	252.19	68.84	68.85	41.99	-26.86	46.34	19.67	26.68	68.66
GOA	0.00	24.08	24.08	8.12	27.86	19.74	3.41	13.68	-10.27	33.55
DAMAN AND DIU	0.00	0.00	0.00	0.00	40.24	40.24	17.66	1.08	16.59	56.83
DADRA & NAGAR	0.45	0.00	-0.45	0.43	73.54	73.10	4.77	6.34	-1.57	71.08
ANDHRA P	7.52	593.96	586.44	23.84	231.47	207.63	41.28	45.23	-3.95	790.12
KARNATAKA	26.02	0.00	-26.02	316.75	106.09	-210.66	42.73	76.81	-34.08	-270.76
KERALA	0.00	0.00	0.00	3.72	53.85	50.13	39.90	3.83	36.07	86.20
TAMIL NADU	3.65	577.30	573.65	11.61	301.80	290.19	77.34	57.91	19.43	883.27
PONDICHERRY	0.00	0.00	0.00	0.00	0.00	0.00	3.17	11.00	-7.84	-7.84
TELANGANA	22.33	25.66	3.33	65.94	161.24	95.30	23.94	79.45	-55.51	43.11
WEST BENGAL	272.95	350.87	77.92	6.50	162.44	155.94	54.67	22.40	32.26	266.13
ODISHA	80.73	6.44	-74.29	84.57	62.82	-21.75	192.93	6.72	186.21	90.17
BIHAR	14.97	73.38	58.41	19.82	185.49	165.67	26.92	74.96	-48.04	176.04
JHARKHAND	0.82	106.59	105.77	77.91	9.57	-68.34	12.74	19.61	-6.87	30.56
SIKKIM	18.90	0.00	-18.90	31.18	0.00	-31.18	2.72	4.19	-1.47	-51.55
DVC	147.19	24.31	-122.87	0.12	239.35	239.22	55.77	8.82	46.95	163.30
ARUNACHAL P	0.00	0.00	0.00	13.70	0.49	-13.21	2.59	10.12	-7.53	-20.74
ASSAM	0.00	39.58	39.58	139.87	55.33	-84.54	23.33	6.50	16.83	-28.14
MANIPUR	0.59	0.00	-0.59	4.09	1.20	-2.89	3.36	1.84	1.52	-1.96
MEGHALAYA	25.44	0.00	-25.44	37.34	20.88	-16.46	5.76	3.72	2.03	-39.87
MIZORAM	0.00	0.00	0.00	31.03	0.00	-31.03	2.05	3.68	-1.63	-32.66
NAGALAND	0.00	0.00	0.00	1.25	3.81	2.56	1.25	4.02	-2.77	-0.22
TRIPURA	0.00	0.00	0.00	21.17	0.12	-21.05	6.23	10.86	-4.63	-25.68
NTPC STNS-NR	0.00	0.00	0.00	1.20	0.00	-1.20	52.86	57.95	-5.09	-6.29
NHPC STNS	0.00	0.00	0.00	0.00	0.00	0.00	16.26	73.58	-57.31	-57.31
NFF	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.22	-0.04	-0.04
RAIL	0.00	0.00	0.00	0.00	0.00	0.00	1.88	5.86	-3.97	-3.97
NEP	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.07	0.07
NAPP	0.00	0.00	0.00	0.00	0.00	0.00	5.13	14.79	-9.66	-9.66
RAP B	0.00	0.00	0.00	0.00	0.00	0.00	5.51	1.63	3.88	3.88
NJPC	0.00	0.00	0.00	0.00	0.00	0.00	4.22	7.64	-3.42	-3.42
TEHRI	0.00	0.00	0.00	0.00	0.00	0.00	1.92	3.43	-1.52	-1.52
BBMB	0.00	0.00	0.00	0.00	0.00	0.00	3.80	14.41	-10.61	-10.61
RAP C	0.00	0.00	0.00	0.00	0.00	0.00	2.12	0.99	1.14	1.14
AD HYDRO	0.00	0.00	0.00	34.50	0.00	-34.50	1.10	1.73	-0.63	-35.14
IGSTPS	0.00	0.00	0.00	0.00	0.00	0.00	3.31	2.13	1.18	1.18

KOTESHWAR	0.00	0.00	0.00	0.00	0.00	0.00	1.57	1.77	-0.20	-0.20
KARCHAM WANGT	0.00	0.00	0.00	30.51	0.00	-30.51	5.05	4.59	0.46	-30.04
SHREE CEMENT	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.04	0.31	0.31
LANCO BUDHIL	0.00	0.00	0.00	1.85	0.00	-1.85	0.25	0.57	-0.31	-2.16
RAMPUR HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.51	7.85	-7.34	-7.34
MALANA	0.00	0.00	0.00	2.21	0.00	-2.21	0.38	0.15	0.23	-1.98
SAINJ HEP	0.00	0.00	0.00	29.30	0.00	-29.30	0.58	0.94	-0.35	-29.65
KISHANGANGA HE	0.00	0.00	0.00	0.00	0.00	0.00	0.66	1.93	-1.27	-1.27
RENEW_SLR	0.00	0.00	0.00	0.00	0.00	0.00	0.98	0.34	0.63	0.63
AZURE_SLR	0.00	0.00	0.00	0.00	0.00	0.00	2.74	4.47	-1.74	-1.74
SB_SLR	0.00	0.00	0.00	0.00	0.00	0.00	4.04	6.98	-2.94	-2.94
MAHOBIA_SLR	0.00	0.00	0.00	0.00	0.00	0.00	2.92	3.93	-1.01	-1.01
ACME_SLR	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.63	-0.32	-0.32
AZURE34_SLR	0.00	0.00	0.00	0.00	0.00	0.00	2.59	2.94	-0.36	-0.36
TATA_SLR	0.00	0.00	0.00	0.00	0.00	0.00	3.03	2.85	0.18	0.18
NTPC STNS-WR	0.00	0.00	0.00	16.84	0.00	-16.84	119.93	90.46	29.47	12.63
JINDAL POWER	39.02	0.00	-39.02	6.63	0.00	-6.63	0.82	2.02	-1.20	-46.85
LANCO_AMK	0.00	0.00	0.00	0.00	0.00	0.00	0.89	2.96	-2.07	-2.07
NSPCL	0.00	0.00	0.00	0.00	0.00	0.00	2.05	0.82	1.23	1.23
ACBIL	19.45	0.00	-19.45	10.12	0.00	-10.12	2.22	3.62	-1.40	-30.97
BALCO	0.00	0.00	0.00	0.00	0.00	0.00	7.80	1.18	6.63	6.63
RGPPL (DABHOL)	0.00	0.00	0.00	0.71	0.00	-0.71	23.31	2.78	20.53	19.81
CGPL	0.00	0.00	0.00	0.00	0.00	0.00	41.73	5.59	36.14	36.14
DCPP	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.02	0.01	0.01
EMCO	0.00	0.00	0.00	0.12	0.00	-0.12	7.98	2.06	5.92	5.80
ESSAR STEEL	0.00	180.97	180.97	0.00	0.00	0.00	27.54	19.46	8.09	189.06
KSK MAHANADI	210.31	0.00	-210.31	0.00	0.00	0.00	5.38	1.84	3.54	-206.77
ESSAR POWER	203.52	0.00	-203.52	8.18	0.00	-8.18	2.82	0.93	1.90	-209.81
JINDAL STAGE-II	6.10	0.00	-6.10	0.00	0.00	0.00	5.49	1.33	4.15	-1.94
DB POWER	90.44	0.00	-90.44	28.98	0.00	-28.98	24.64	1.01	23.63	-95.79
DHARIWAL POWER	0.00	0.00	0.00	0.16	0.00	-0.16	0.88	0.92	-0.04	-0.19
JAYPEE NIGRIE	91.65	0.00	-91.65	70.54	0.00	-70.54	1.14	4.82	-3.68	-165.87
DGEN MEGA POWE	0.00	0.00	0.00	0.07	0.00	-0.07	1.33	0.04	1.29	1.22
GMR CHATTISGAR	263.16	0.00	-263.16	49.79	0.00	-49.79	19.06	0.99	18.07	-294.89
KORBA WEST POW	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.72	0.72
MB POWER	150.39	0.00	-150.39	29.46	0.00	-29.46	11.06	7.51	3.55	-176.29
MARUTI COAL	0.00	0.00	0.00	12.09	0.00	-12.09	0.00	0.00	0.00	-12.09
SPECTRUM	0.00	0.00	0.00	31.72	0.00	-31.72	0.00	0.00	0.00	-31.72
JHABUA POWER_M	10.26	0.00	-10.26	26.02	0.00	-26.02	17.17	1.04	16.12	-20.15
SASAN UMPP	0.00	0.00	0.00	0.00	0.00	0.00	1.45	64.92	-63.48	-63.48
TRN ENERGY	0.49	0.00	-0.49	0.00	0.00	0.00	0.95	0.05	0.91	0.42
RKM POWER	0.00	0.00	0.00	0.00	0.00	0.00	2.93	0.63	2.30	2.30
SKS POWER	157.30	0.00	-157.30	5.09	0.00	-5.09	2.19	1.20	0.99	-161.40
BARC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.47	-3.47	-3.47
KAPP 3&4	0.00	0.00	0.00	0.00	0.00	0.00	3.40	0.00	3.40	3.40
HVDC CHAMPA	0.00	0.00	0.00	0.00	0.00	0.00	1.32	0.27	1.05	1.05
MAHINDRA_RUMS	0.00	0.00	0.00	0.00	0.00	0.00	5.85	4.64	1.21	1.21
ARINSUM_RUMS	0.00	0.00	0.00	0.00	0.00	0.00	3.02	4.98	-1.96	-1.96
OSTRO	0.00	0.00	0.00	0.00	0.00	0.00	6.11	9.75	-3.64	-3.64
ACME_RUMS	0.00	0.00	0.00	0.00	0.00	0.00	3.54	4.43	-0.89	-0.89
RENEW_BHACHAU	0.00	0.00	0.00	0.00	0.00	0.00	3.85	7.27	-3.42	-3.42
GIWEL_BHUJ	0.00	0.00	0.00	0.00	0.00	0.00	7.37	10.56	-3.19	-3.19
INOX_BHUJ	0.00	0.00	0.00	0.00	0.00	0.00	1.35	0.68	0.67	0.67
NTPC STNS-SR	0.00	0.00	0.00	3.98	0.00	-3.98	34.61	20.34	14.27	10.29

LANKO KONDAPAI	0.00	0.00	0.00	0.00	0.00	0.00	0.58	0.00	0.58	0.58
SIMHAPURI	0.00	0.00	0.00	0.00	0.00	0.00	0.54	0.00	0.54	0.54
MEENAKSHI	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.61	0.61
COASTGEN	2.89	0.00	-2.89	0.00	0.00	0.00	2.31	1.77	0.54	-2.35
THERMAL POWER T	384.79	0.00	-384.79	85.16	0.00	-85.16	5.86	3.59	2.27	-467.67
IL&FS	344.30	0.00	-344.30	3.24	0.00	-3.24	8.19	0.16	8.03	-339.51
NLC	0.00	0.00	0.00	133.58	0.00	-133.58	15.67	46.18	-30.51	-164.09
SEMBCORP	0.00	0.00	0.00	149.92	0.00	-149.92	4.78	1.58	3.20	-146.72
NETCL VALLUR	0.00	0.00	0.00	0.00	0.00	0.00	9.76	0.53	9.23	9.23
NTPL	0.00	0.00	0.00	0.00	0.00	0.00	3.04	1.84	1.20	1.20
NTPC STNS-ER	0.51	0.00	-0.51	7.13	0.00	-7.13	38.67	34.39	4.28	-3.35
MAITHON POWER I	0.00	0.00	0.00	0.00	0.00	0.00	3.20	5.50	-2.30	-2.30
NPGC	0.00	0.00	0.00	0.00	0.00	0.00	3.55	2.86	0.70	0.70
ADHUNIK POWER I	105.06	0.00	-105.06	1.81	0.00	-1.81	6.85	0.83	6.02	-100.84
CHUZACHEN HEP	43.72	0.00	-43.72	7.19	0.00	-7.19	1.79	1.21	0.58	-50.32
RANGIT HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.72	-0.50	-0.50
GMR KAMALANGA	0.00	0.00	0.00	0.00	0.00	0.00	1.37	0.87	0.49	0.49
JITPL	0.00	0.00	0.00	0.00	0.00	0.00	3.40	1.28	2.12	2.12
TEESTA HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.37	10.04	-9.66	-9.66
DAGACHU	63.45	0.00	-63.45	0.00	0.00	0.00	10.54	0.25	10.30	-53.15
JORETHANG	19.61	0.00	-19.61	40.70	0.00	-40.70	3.89	0.23	3.66	-56.65
NEPAL(NVVN)	0.00	15.68	15.68	0.00	0.00	0.00	4.99	4.00	0.99	16.67
BANGLADESH	0.00	142.56	142.56	0.00	0.00	0.00	3.35	4.58	-1.24	141.32
TEESTA STG3	3.39	0.00	-3.39	415.98	0.00	-415.98	11.85	3.51	8.34	-411.03
DIKCHU HEP	20.13	0.00	-20.13	31.69	0.00	-31.69	3.48	1.42	2.07	-49.75
TASHIDENG HEP	19.65	0.00	-19.65	41.63	0.00	-41.63	1.95	1.34	0.61	-60.67
OPGC	0.00	0.00	0.00	0.00	0.00	0.00	0.52	210.60	-210.09	-210.09
BRBCL,NABINAGA	0.00	0.00	0.00	0.08	0.00	-0.08	4.85	6.65	-1.79	-1.87
MTPS II	0.00	0.00	0.00	0.00	0.00	0.00	42.93	1.15	41.78	41.78
TALA HEP	0.00	0.00	0.00	0.00	0.00	0.00	182.53	0.02	182.50	182.50
CHUKHA HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.02	119.96	-119.94	-119.94
KURICHU HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.55	20.35	-19.80	-19.80
MANGDECHU HEP	0.00	0.00	0.00	0.00	0.00	0.00	56.41	6.14	50.27	50.27
NTPC STNS-NER	2.72	0.00	-2.72	6.75	0.00	-6.75	4.34	3.64	0.70	-8.78
NEEPCO STNS	0.00	0.00	0.00	0.00	0.00	0.00	1.72	7.36	-5.64	-5.64
RANGANADI HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.66	2.42	-1.75	-1.75
DOYANG HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.38	-0.20	-0.20
ONGC PALATANA	38.29	0.00	-38.29	3.64	0.00	-3.64	2.71	0.70	2.01	-39.92
LOKTAK	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.99	-0.58	-0.58
PARE HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.74	-0.49	-0.49

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 DSM

Figure 7: Bilateral Contracts executed by Traders in November, 2019

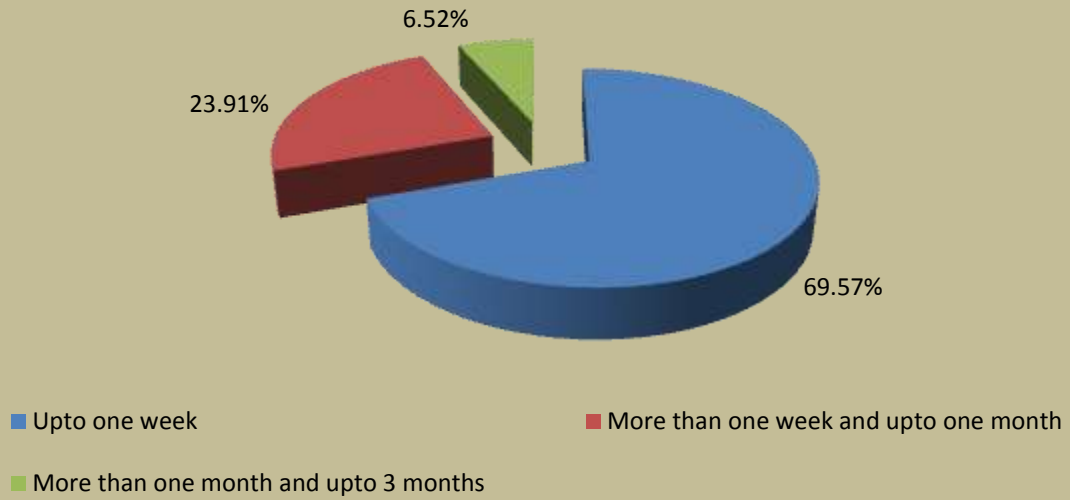


Figure-8: Forward Curve based on Prices of Bilateral Contracts

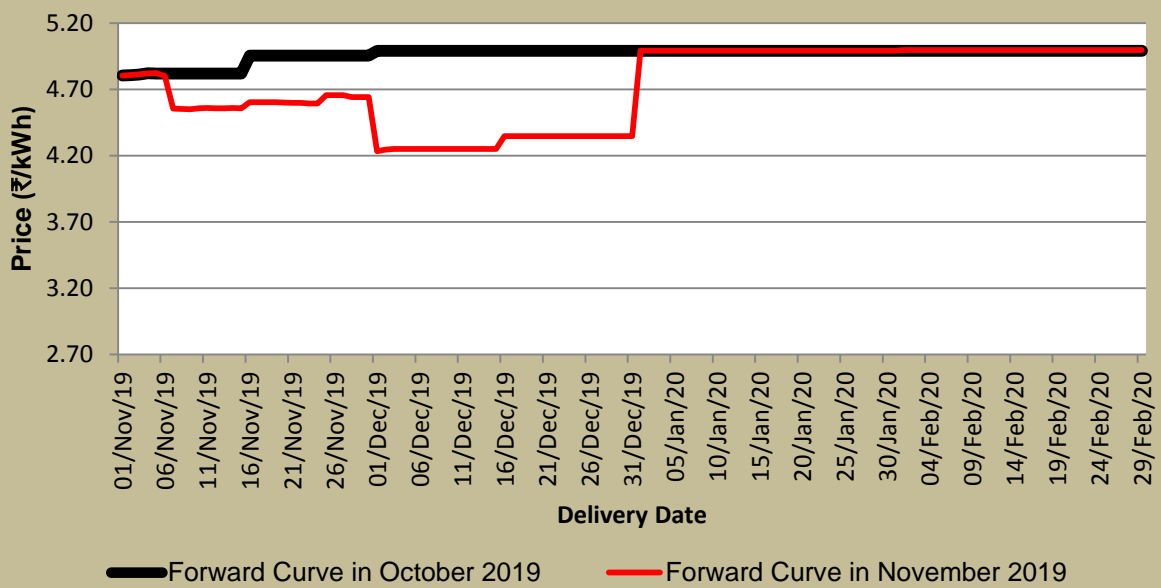


Table-20 : VOLUME AND PRICE OF RENEWABLE ENERGY CERTIFICATES (RECs) TRANSACTIONED THROUGH POWER EXCHANGES, OCTOBER 2019						
Sr. No.	Details of REC Transactions	IEX		PXIL		
		Solar	Non-Solar	Solar	Non Solar	Non-Solar (issued before 1 st April 2017)
A	Volume of Buy Bid	659128	703274	254763	259433	23000
B	Volume of Sell Bid	59944	515874	39636	198874	21529
C	Ratio of Buy Bid to Sell Bid Volume	11.00	1.36	6.43	1.30	1.07
D	Market Clearing Volume (MWh)	59944	388821	39636	177509	21529
E	Weighted average Market Clearing Price (₹/MWh)	2400	1650	2400	1650	1710

Source: IEX and PXIL

Note 1: 1 REC = 1 MWh

Note 2:

<i>Forbearance and Floor Price w.e.f 1st April 2017</i>		
Type of REC	Floor Price (₹/MWh)	Forbearance Price (₹/MWh)
<i>Solar</i>	<i>1000.00</i>	<i>2400.00</i>
<i>Non-Solar</i>	<i>1000.00</i>	<i>3000.00</i>