

Monthly Report on Short-term Transactions of Electricity in India

December, 2020



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Abbreviations

Abbreviation	Expanded Version
ABSP_ANTP	Acme Bhiwadi Solar Power Private Limited, Anantpur
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
ADANI GREEN	Adani Green Energy Limited
ADY1_PVGD	Adyah Solar Energy Pvt Ltd., Block 1 Pavagada Solar Park
ADY2_PVGD	Adyah Solar Energy Pvt Ltd., Block 2 Pavagada Solar Park
ADY3_PVGD	Adyah Solar Energy Pvt Ltd., Block 3 Pavagada Solar Park
ADY6_PVGD	Adyah Solar Energy Pvt Ltd., Block 6 Pavagada Solar Park
ADY10_PVGD	Adyah Solar Energy Pvt Ltd., Block 10 Pavagada Solar Park
ADY13_PVGD	Adyah Solar Energy Pvt Ltd., Block 13 Pavagada Solar Park
AGEMPL BHUJ	Adani Green Energy (MP) Ltd., Bhuj
AHSP_ANTP	Acme Hisar Solar Power Private Limited, Anantpur
AKS_PVGD	ACME Kurukshetra Solar Energy Pvt. Ltd
AKSP_ANTP	Acme Karnal Solar Power Private Limited, Anantpur
ALFANAR_BHUJ	Alfanar Group Wind Project, Bhuj, Gujarat
AMPS Hazira	Arcelor Mittal Nippon Steel, Hazira
APTEL	Appellate Tribunal for Electricity
ARERJL_SLR	Adani Renewable Energy Park Rajasthan Ltd.
ARINSUM_RUMS	Solenergi Rewa Ultra Mega Solar Project
ARS_PVGD	ACME REWARI Solar Power Pvt Ltd.
ASEJTL_SLR	Adani Solar Energy Jodhpur Two Ltd.
AVAADA1_PVGD	Avaada Solar Energy Private Ltd., Pavagada Project 1
AVAADA2_PVGD	Avaada Solar Energy Private Ltd., Pavagada Project 2
AYANA_NPKUNTA	Ayana Power, NP Kunta
AZURE_ANTP	Azure Power, Anantpur
AZURE_PVGD	Azure Power, Pavagada
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
BETAM_TCN	Betam Wind Energy Private Limited, Tuticorin
BHADRAVATHI HVDC	Bhadravathi High Voltage Direct Current Link
BRBCL	Bhartiya Rail Bijlee Company Limited
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CGPL	Coastal Gujarat Power Limited
CHUKHA HEP	Chukha Hydroelectric Project, Bhutan
CHUZACHEN HEP	Chuzachen Hydro Electric Power Project
CLEAN_SLR	Clean Solar Power Pvt. Ltd
COASTGEN	Coastal Energen Private Limited
DAGACHU	Dagachhu Hydro Power Corporation
DAM	Day Ahead Market
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
FORTUM1_PVGD	Fortum Finnsurya Energy Private Ltd, Pavagada Project 1
FORTUM2_PVGD	Fortum Finnsurya Energy Private Ltd, Pavagada Project 2
FRV_ANTP	Fotowatio Renewable Ventures, Anantapur
FRV_NPK	Fotowatio Renewable Ventures, NP Kunta
GIWEL_BHUI	Green infra wind energy Limited, Bhuj
GIWEL_TCN	Green Infra Wind Energy Limited, Tuticorin
GMR CHHATTISGARH	GMR Chhattisgarh Energy Limited
GMR KAMALANGA	GMR Kamalanga Energy Ltd.
G-TAM	Green Term Ahead Market
HVDC ALPD	Alipurduar High Voltage Direct Current Link
HVDC CHAMPA	Champa-Kurukshetra High Voltage Direct Current Link
HVDC PUS	Pasauli High Voltage Direct Current Link
HVDC RAIGARH	Raigarh-Pugalur 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_BHUI	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
KREDL_PVGD	Karnataka Renewable Energy Development Ltd, Pavagada
KSK MAHANADI	KSK Mahanadi Power Ltd
KSMPL_SLR	Kilaj Solar (Maharashtra) Private Limited
KURICHU HEP	Kurichhu Hydro-electric Power Station, Bhutan
LANKO_AMK	Lanco Amarkantak Power Private Limited
LANKO BUDHIL	Lanco Budhil Hydro Power Private Limited
LANKOKONDAPALLY	Lanco Kondapally 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
MYTRAH_TCN	Mytrah Energy (India) Private Limited, Tuticorin
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_ANTP	NTPC Anantapur
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
ORANGE_TCN	Orange Renewable Power Pvt. Ltd, Tuticorin
OSTRO	Ostro Energy Private Limited
OTC	Over The Counter
PARAM_PVGD	Parampujya Solar Energy Private Ltd
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
REGL	Raigarh Energy Generation Limited
RENEW_BHACHAU	ReNew Power Limited, Bhachau
RENEW_BHUJ	ReNew Power Limited, Bhuj
RENEW_PVGD	ReNew Wind Energy (TN2) Private Limited
RENEW_SLR	Renew Solar
RENEW_SLR_BKN	Renew Solar Bikaner
RGPPL_IR	Ratnagiri Gas and Power Private Ltd., supply to Indian Railways
RGPPL_OTHER	Ratnagiri Gas and Power Private Limited
RLDC	Regional Load Dispatch Centre
RPREL	Raipur Energen Limited
RTC	Round The Clock
RTM	Real Time Market
Sasan UMPP	Sasan Ultra Mega Power Project

SB_SLR	Soft Bank Solar
SBG_CLEANTECH_SLR	SBG Cleantech Ltd
SBG_NPK	SB Energy Solar Private Limited, NP Kunta
SBG_PVGD	SB Energy Solar Private Limited, Pavagada
SEMBCORP	Sembcorp Gayatri Power Ltd
SHREE CEMENT	Shree Cement Limited
SIMHAPURI	Simhapuri Energy Private Limited
SKS Power	SKS Power Generation Chhattisgarh Limited
SINGOLI BHATWARI HEP	Singoli-Bhatwari Hydroelectric Project, Uttarakhand
SPECTRUM	Spectrum Power Generation Ltd
SPRNG_NPKUNTA	Sprng Energy, NP Kunta
TALA HEP	Tala Hydroelectric Project, Bhutan
TASHIDENG HEP	Tashiding Hydro Electric Project, Sikkim
TATA_ANTP	TATA Power Anantapur
TATA_PVGD	Tata Power Renewable Energy Ltd
TATA_SLR	Tata Solar
TEESTA STG3	Teesta Stage 3 Hydro Power Project
TEHRI	Tehri Hydro Electric Power Project
TAM	Term Ahead Market
THERMAL POWERTECH	Thermal Powertech Corporation India Limited
URI-II	Uri-II Hydropower Project
VINDHYACHAL HVDC	Vindhyachal High Voltage Direct Current Link
YARROW_PVGD	Yarrow Infra Structure Private Ltd

1.Introduction

1.1. 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 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 details of the report for the month of **December, 2020** are as under:

2. Volume of Short-term Transactions of Electricity

2.1. During December2020, total electricity generation excluding generation from renewable and captive power plants in India was 103655.60MUs (Table-1). Of the total electricity generation, 13.44% was transacted through short-term, comprising of 6.50% through Day Ahead Market (DAM) and Real Time Market (RTM) of power exchanges, followed by 5.15% through bilateral (through traders and term-ahead contracts on power exchanges and directly between distribution companies) and 1.79% through DSM (Table-1 & Figure-1).

2.2. Of the total short-term transactions (13929.05MUs), the electricity transacted in DAM and RTM of power exchanges constitutes 48.39%, followed by38.32% through bilateral (25.55% through traders and term-ahead contracts on power exchanges and 12.77% directly between distribution companies) and 13.29% through DSM (Table-1 & Figure-2). Daily volume of short-term transactions is shown in Table-21 & Figure-4.

2.3. Of the total volume of electricity transacted through power exchanges, 68.52% of the volume was transacted in DAM, followed by17.69% in Term Ahead Market (TAM) and 13.79% in RTM (Figure-3).

2.4. 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-5. The volume of electricity transacted by the trading licensees includes bilateral transactions and the transactions undertaken through power exchanges. There were 34 trading licensees as on December 2020. In December 2020, 23 trading licensees were engaged in short term trading. Top 5 trading licensees had a share of 82.22% in the total volume traded by all the licensees. These are PTC India Ltd., Adani Enterprises Ltd., NTPC Vidyut Vyapar Nigam Ltd., GMR Energy Trading Ltd. and Manikaran Power Ltd.

2.5. 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 0.2115 for the month of December 2020, which indicates moderate concentration of market power (Table-2).

2.6. The volume of electricity transacted in the DAM of IEX and PXIL was 5605.58MUs and 5.42MUs respectively. The volume of total buy bids and sell bids was 6572.75MUs and 10814.11MUs respectively in IEX, while the same was 16.25 MUs and 149.00MUs respectively in PXIL.

2.7. The volume of electricity transacted in the RTM of IEX was 1129.09MUs. No electricity was transacted in the RTM of PXIL. The volume of total buy bids and sell bids was 1359.37MUs and 2710.51MUs respectively in IEX, while there were no bids 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.

2.8. The volume of electricity transacted in the TAM of IEX and PXIL was 435.72MUs and 915.98MUs respectively (Table-7 & Table-8). The volume of electricity transacted in the Green Term Ahead Market (G-TAM) of IEX was 96.82MUs (Table-9).

3. Price of Short-term Transactions of Electricity

3.1. **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 ₹ 2.24/kWh, ₹4.70/kWh and ₹3.03/kWh respectively (Table-3). The weighted average sale prices were also computed for the electricity transacted during Round the Clock (RTC) and Off-peak periods separately, and the sale prices were ₹2.91/kWh and ₹3.10/kWh respectively. No electricity was transacted during the Peak period (Table-4).

3.2. **Price of electricity transacted through Power Exchanges:** The minimum, maximum and weighted average prices for the electricity transacted in the DAM of IEX were ₹1.57/kWh, ₹6.05/kWh and ₹3.01/kWh respectively. These prices in the DAM of PXIL were ₹2.00/kWh, ₹5.99/kWh and ₹3.16/kWh respectively (Table-5). The minimum, maximum and weighted average prices for the electricity transacted in the RTM of IEX were ₹0.90/kWh, ₹15.00/kWh and ₹3.11/kWh respectively (Table-6). The price of electricity transacted in the TAM of IEX and PXIL was ₹2.60/kWh and ₹2.61/kWh respectively (Table-7 and Table-8). The price of electricity transacted in the G-TAM of IEX was ₹3.63/kWh (Table-9).

3.3. **Price of electricity transacted through DSM:** The minimum, maximum and average price of DSM was ₹0.00/kWh and ₹8.00/kWh ₹2.72/kWh respectively (Table-10).

3.4. The prices of electricity transacted through trading licensees, power exchanges and DSM and their comparison is shown in Table-22 & 23, Figure-6&7.

4. Trading Margin

4.1. As per the CERC (Procedure, Terms and Conditions for grant of trading licence and other related matters) Regulations 2020, the trading licensees are allowed to charge trading margin of not less than 0 paise/kWh and upto 7 paise/kWh. The weighted average trading margin charged by the trading licensees for bilateral transactions during the month was ₹0.024/kWh.

5. Volume of Short-term Transactions of Electricity (Regional Entity¹-Wise)

5.1. Of the total bilateral transactions, top 5 regional entities sold 55.70% of the volume, and these were Punjab, Gujarat, Raipur Energen Limited, Sembcorp Gayatri Power Ltd. and Uttar Pradesh. Top 5 regional entities purchased 70.34% of the volume, and these were Madhya Pradesh, Punjab, Tamil Nadu, Himachal Pradesh and Rajasthan (Table-11&12).

5.2. Of the total DAM transactions of power exchanges, top 5 regional entities sold 47.96% of the volume, and these were West Bengal, Uttar Pradesh, Odisha, Jindal Power Limited and Jindal Power Ltd Stage II. Top 5 regional entities purchased 56.51% of the volume, and these were Andhra Pradesh, Maharashtra, Tamil Nadu, Gujarat and Telangana (Table-13 & 14).

5.3. Of the total RTM transactions of power exchanges, top 5 regional entities sold 44.47% of the volume, and these were Odisha, West Bengal, Neyveli Lignite Corporation, Uttar Pradesh and Sembcorp Gayatri Power Ltd. Top 5 regional entities purchased 74.07% of the volume, and these were Jammu & Kashmir, Rajasthan, Telangana, Andhra Pradesh and Maharashtra (Table-15 & 16).

5.4. Of the total DSM transactions, top 5 regional entities under drew 23.48% of the volume, and these were Uttar Pradesh, NTPC Stations (Western Region), Maharashtra, Madhya Pradesh and Karnataka (Table-17). Top 5 regional entities overdrew 21.39% of the volume, and these were Rajasthan, Tala Hydroelectric Project-Bhutan, NTPC Stations (Western Region), NTPC Stations (Northern Region) and Gujarat (Table-18).

5.5. The total volume of net short-term transactions of electricity (Regional entity-wise) i.e. volume of net transactions through bilateral, power exchanges and DSM is shown in Table-19 & 24. Top 5 electricity selling regional entities were Sembcorp Gayatri Power Ltd., Raipur Energen Limited, Uttar Pradesh, Odisha and West Bengal. Top 5 electricity purchasing regional entities were Tamil Nadu, Andhra Pradesh, Madhya Pradesh, Rajasthan and Jammu & Kashmir.

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.

6. Congestion² on Inter-State Transmission Corridor for Day-Ahead Market and Real Time Market on Power Exchanges

6.1. The 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.

6.2. In the month of December 2020, congestion occurred in both DAM & RTM of IEX. There was no congestion on PXIL. The details of congestion are shown in Table-20. 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 and actual cleared volume.

6.3. During the month, the volume of electricity that could not be cleared in RTM on IEX was 0.002% of the unconstrained cleared volume. In terms of time, congestion occurred was 0.27% in the RTM and 0.10% in the DAM on IEX (Table-19).

7. Volume and Price of Renewable Energy Certificates (RECs)

7.1. 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

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.

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.

7.2. 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.

7.3. There were no transactions of REC in the month of December, 2020 as the scheduled trading was postponed by Hon'ble APTEL in matter of the CERC order fixing new floor and forbearance price for both Solar and Non-solar RECs.

8. Inferences:

- (1) The percentage of short-term transactions of electricity to total electricity generation was 13.44%.
- (2) Of the total short-term transactions, the electricity transacted in DAM and RTM of power exchanges constitutes 48.39%, followed by 38.32% through bilateral (25.55% through traders and term-ahead contracts on power exchanges and 12.77% directly between distribution companies) and 13.29% through DSM.
- (3) Of the total volume transacted through the power exchanges, 68.52% of the volume was transacted in DAM, followed by 17.69% in TAM and 13.79% in RTM.
- (4) Top 5 trading licensees had a share of 82.22% in the total volume traded by all the trading licensees.
- (5) The Herfindahl Hirschman Index computed for the volume of electricity traded by trading licensees was 0.2115, indicating moderate concentration of market power.
- (6) The weighted average price of electricity transacted through trading licensees was ₹3.03/kWh.

- (7) The weighted average price of electricity transacted in TAM of IEX and PXIL was ₹2.60/kWh and ₹2.61/kWh respectively. The weighted average price of electricity transacted in G-TAM of IEX was ₹3.63/kWh
- (8) The weighted average price of electricity transacted in DAM of IEX and PXIL was ₹3.01/kWh and ₹3.16/kWh. The weighted average price of electricity transacted in RTM of IEX was ₹3.11/kWh. No electricity was transacted in the RTM of PXIL.
- (9) The average price of electricity transacted through DSM was ₹2.72/kWh.
- (10) The weighted average trading margin charged by the trading licensees for bilateral transactions was ₹0.024/kWh. The trading margin charged during the month was in line with the Trading Margin Regulations 2020.
- (11) Top 5 electricity selling regional entities were Sembcorp Gayatri Power Ltd., Raipur Energen Limited, Uttar Pradesh, Odisha and West Bengal. Top 5 electricity purchasing regional entities were Tamil Nadu, Andhra Pradesh, Madhya Pradesh, Rajasthan and Jammu & Kashmir.
- (12) In the month of December 2020, congestion occurred in both DAM & RTM of IEX. During the month, the volume of electricity that could not be cleared in RTM on was 0.002% of the unconstrained cleared volume. In terms of time, congestion occurred was 0.27% in the RTM and 0.10% in the DAM on IEX.
- (13) There were no transactions of REC on both the power exchanges in the month of December 2020, as the scheduled REC trading sessions were postponed by the order of Hon'ble APTEL.

Table-1: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY IN INDIA, DECEMBER 2020				
Sr.No	Short-term transactions	Volume (MUs)	% to Volume of short-term transactions	% to Total Generation
1	Bilateral	5337.91	38.32	5.15
	(i) Through Traders and PXs	3558.51	25.55	3.43
	(ii) Direct	1779.40	12.77	1.72
2	Through Power Exchanges	6740.08	48.39	6.50
	(i) IEX			
	(a) DAM	5605.58	40.24	5.41
	(b) RTM	1129.09	8.11	1.09
	(ii)PXIL			
	(a) DAM	5.42	0.04	0.01
	(b) RTM	0.00	0.00	0.00
3	Through DSM	1851.06	13.29	1.79
	Total	13929.05	-	13.44
	Total Generation	103655.60	-	-

Source: NLDC

Figure-1: Volume of Various Kinds of Electricity Transactions in Total Electricity Generation, December 2020

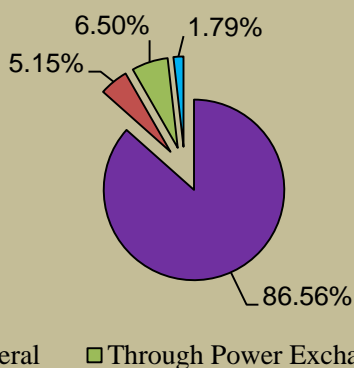


Figure-2: Volume of Short-term Transactions of Electricity, December 2020

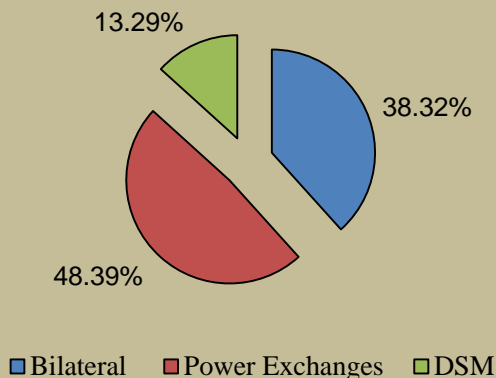


Figure-3: Volume transacted in different markets segments on Power Exchanges, December 2020

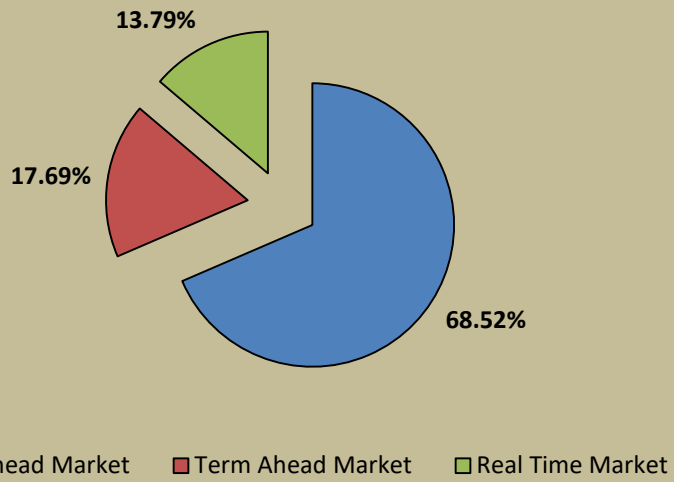


Figure-4: Volume of Short-term Transactions of Electricity, December 2020 (Day-wise)

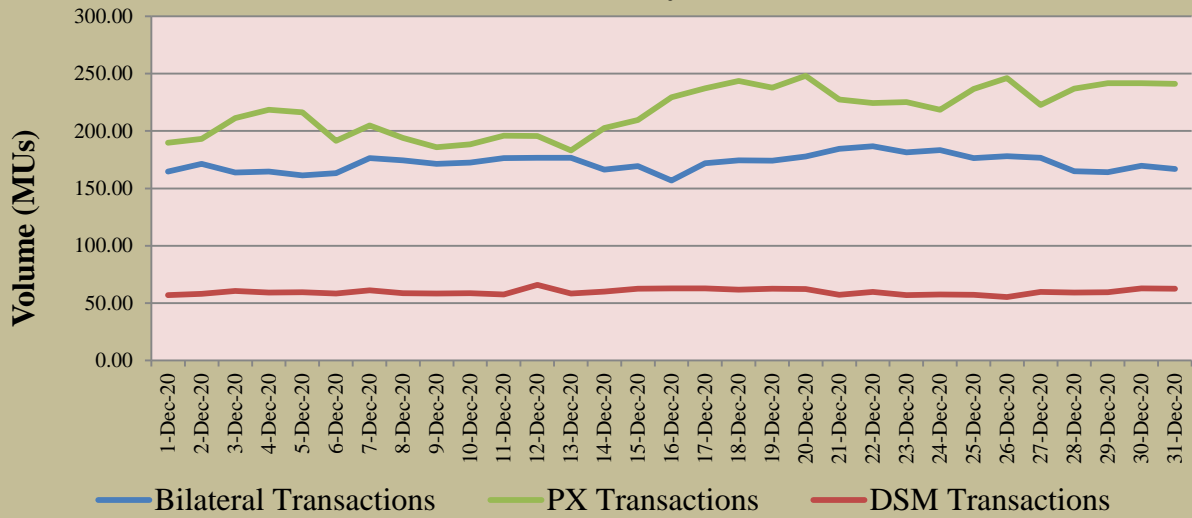


Table-2: PERCENTAGE SHARE OF ELECTRICITY TRANSACTED BY TRADING LICENSEES, DECEMBER 2020			
Sr.No	Name of the Trading Licensee	% Share in total Volume transacted by Trading Licensees	Herfindahl-Hirschman Index
1	PTC India Ltd.	39.85	0.1588
2	Adani Enterprises Ltd.	15.17	0.0230
3	NTPC Vidyut Vyapar Nigam Ltd.	9.60	0.0092
4	GMR Energy Trading Ltd.	8.83	0.0078
5	Manikaran Power Ltd.	8.76	0.0077
6	Tata Power Trading Company (P) Ltd.	4.61	0.0021
7	Kreate Energy (I) Pvt. Ltd.	3.76	0.0014
8	Arunachal Pradesh Power Corporation (P) ltd	3.10	0.0010
9	National Energy Trading & Services Ltd.	1.05	0.0001
10	Knowledge Infrastructure Systems (P) Ltd	0.96	0.0001
11	JSW Power Trading Company Ltd	0.83	0.0001
12	Instinct Infra & Power Ltd.	0.73	0.0001
13	Essar Electric Power Development Corp. Ltd.	0.66	0.0000
14	RPG Power Trading Company Ltd.	0.65	0.0000
15	Statkraft Markets Pvt. Ltd.	0.39	0.0000
16	NLC India Ltd.	0.23	0.0000
17	Abja Power Private Limited	0.21	0.0000
18	Jaiprakash Associates Ltd.	0.17	0.0000
19	Gita Power & Infrastructure Private Limited	0.16	0.0000
20	Refex Energy Limited	0.10	0.0000
21	Shree Cement Ltd.	0.08	0.0000
22	Customized Energy Solutions India (P) Ltd.	0.06	0.0000
23	Phillip Commodities India (P) Ltd.	0.03	0.0000
TOTAL		100.00%	0.2115
Top 5 trading licensees		82.22%	
<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 5: Percentage Share of Electricity Transacted by Trading Licensees, December 2020

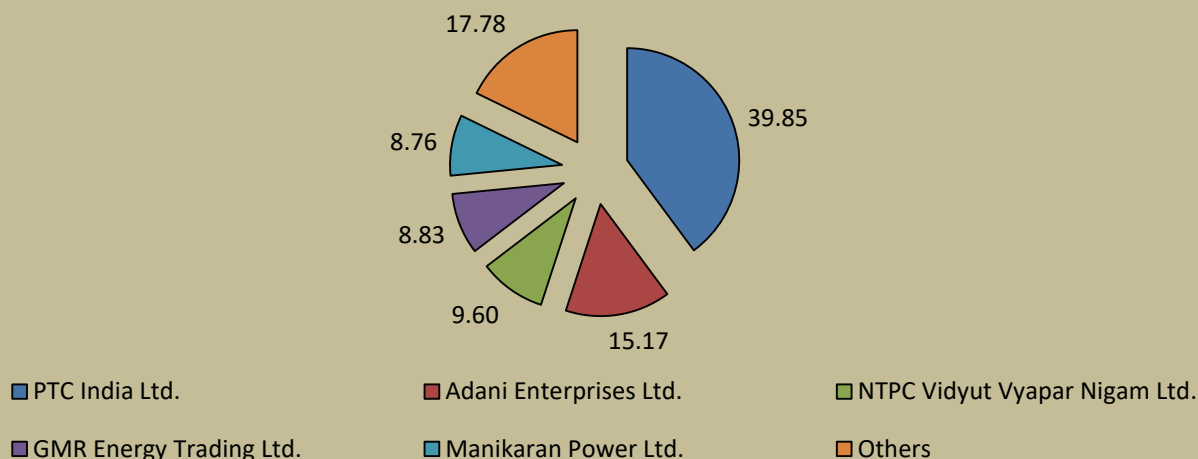


Table-3: PRICE OF ELECTRICITY TRANSACTED THROUGH TRADERS, DECEMBER 2020

Sr.No	Item	Sale Price of Traders (₹/kWh)
1	Minimum	2.24
2	Maximum	4.70
3	Weighted Average	3.03

Source: Information submitted by trading licensees

Table-4: PRICE OF ELECTRICITY TRANSACTED THROUGH TRADERS (TIME-WISE), DECEMBER 2020

Sr.No	Period of Trade	Sale Price of Traders (₹/kWh)
1	RTC	2.91
2	PEAK	-
3	OFF PEAK	3.10

Source: Information submitted by trading licensees

Table-5: PRICE OF ELECTRICITY TRANSACTED IN DAY AHEAD MARKET THROUGH POWER EXCHANGES, DECEMBER 2020

Sr.No	ACP	Price in IEX (₹/kWh)	Price in PXIL (₹/kWh)
1	Minimum	1.57	2.00
2	Maximum	6.05	5.99
3	Weighted Average	3.01	3.16

Source: Information submitted by IEX and PXIL

Table-6: PRICE OF ELECTRICITY TRANSACTED IN REAL TIME MARKET THROUGH POWER EXCHANGES, DECEMBER 2020

Sr.No	ACP	Price in IEX (₹/kWh)	Price in PXIL (₹/kWh)
1	Minimum	0.90	-
2	Maximum	15.00	-
3	Weighted Average	3.11	-

Source: Information submitted by IEX and PXIL

Table-7: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF IEX, DECEMBER 2020

Sr.No	Term ahead contracts	Actual Scheduled Volume (MUs)	Weighted Average Price (₹/kWh)
1	Intra-Day Contracts	5.04	3.82
2	Day Ahead Contingency Contracts	14.47	3.07
3	Daily Contracts	416.21	2.57
	Total	435.72	2.60

Source: IEX

Table-8: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF PXIL, DECEMBER 2020

Sr.No	Term ahead contracts	Actual Scheduled Volume (MUs)	Weighted Average Price (₹/kWh)
1	Intra-Day Contracts	4.95	3.10
2	Any Day(s) Contracts	911.03	2.60
	Total	915.98	2.61

Source: PXIL

Table-9: VOLUME AND PRICE OF ELECTRICITY IN GREEN TERM AHEAD MARKET OF IEX, DECEMBER 2020

Sr.No	Green Term ahead contracts	Actual Scheduled Volume (MUs)	Weighted Average Price (₹/kWh)
1	Intra-Day Contracts	0.518	3.85
2	Day Ahead Contingency Contracts	89.65	3.62
3	Weekly Contracts	6.65	3.73
	Total	96.82	3.63

Source: IEX

Table-10: PRICE OF ELECTRICITY TRANSACTED THROUGH DSM, DECEMBER 2020

Sr.No	Item	Price in All India Grid (₹/kWh)
1	Minimum	0.00
2	Maximum	8.00
3	Average	2.72

Source: NLDC

Figure-6: Price of Short-term Transactions of Electricity, December 2020

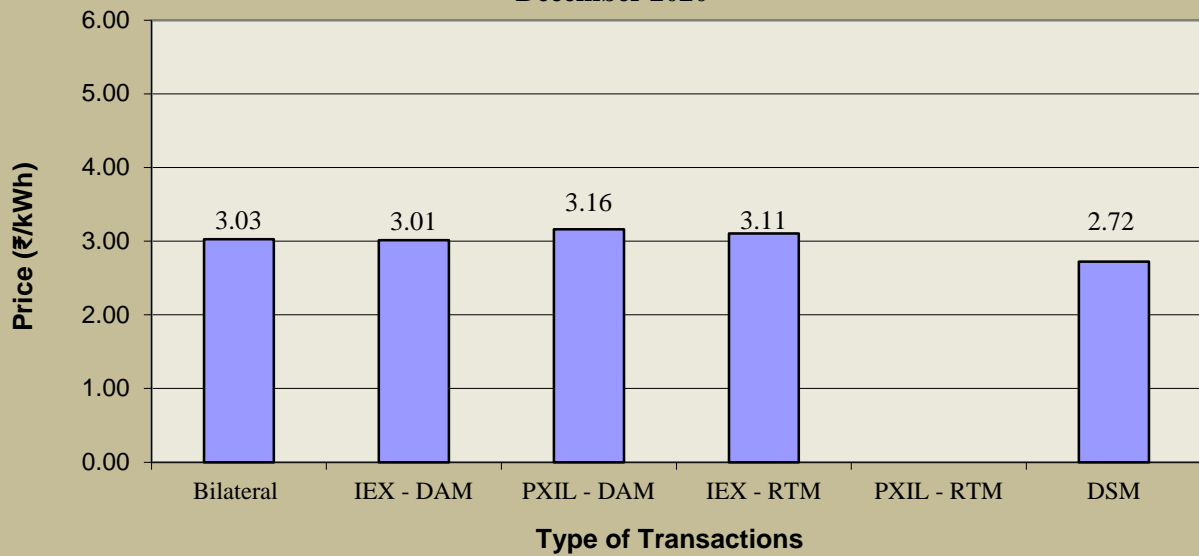
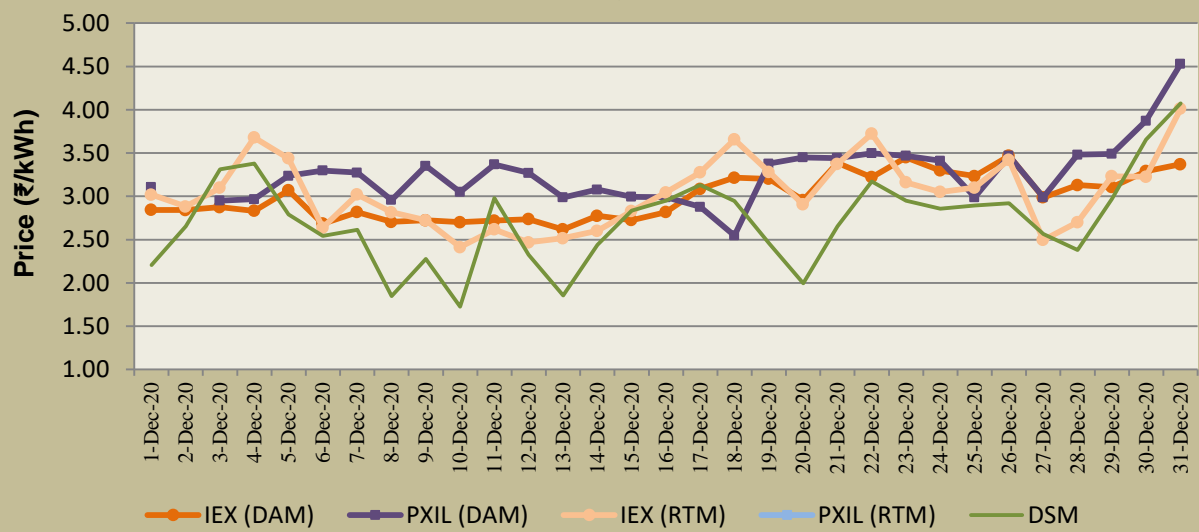


Figure-7: Price of Short-term Transactions of Electricity, December 2020 (Day-wise)



Note: In PXIL, no electricity was transacted in RTM, while there were no transactions in DAM on 2nd Dec 2020.

Table-11: VOLUME OF ELECTRICITY SOLD THROUGH BILATERAL, DECEMBER 2020		
Name of the Entity	Volume of Sale (MUs)	% of Volume
PUNJAB	967.58	18.14
GUJARAT	596.21	11.18
RPREL	576.22	10.80
SEMBCORP	489.78	9.18
UTTAR PRADESH	342.02	6.41
REGL	268.96	5.04
DELHI	217.14	4.07
DB POWER	211.88	3.97
CHHATTISGARH	205.41	3.85
DVC	184.31	3.45
ESSAR POWER	135.31	2.54
ADHUNIK POWER LTD	118.36	2.22
MB POWER	113.16	2.12
SKS POWER	107.92	2.02
HARYANA	103.08	1.93
TELANGANA	86.69	1.62
JAYPEE NIGRIE	81.28	1.52
JINDAL STAGE-II	73.56	1.38
JITPL	65.86	1.23
ONGC PALATANA	53.59	1.00
NEEPCO STATIONS	50.84	0.95
J & K	38.16	0.72
KARNATAKA	34.15	0.64
BALCO	29.52	0.55
RAJASTHAN	27.88	0.52
DAGACHU	27.84	0.52
JORETHANG	15.39	0.29
MP	13.89	0.26
ODISHA	13.80	0.26
MAHARASHTRA	12.85	0.24
TASHIDENG HEP	11.93	0.22
CHUZACHEN HEP	9.80	0.18
LANKO_AMK	8.56	0.16
TRN ENERGY	7.40	0.14
ANDHRA PRADESH	7.22	0.14
HIMACHAL PRADESH	6.51	0.12
NAGALAND	5.20	0.10
WEST BENGAL	4.21	0.08
SIKKIM	3.93	0.07
BIHAR	2.89	0.05
UTTARAKHAND	1.75	0.03
MEGHALAYA	1.37	0.03
ACBIL	0.74	0.01
NTPC STATIONS-NER	0.65	0.01
JINDAL POWER	0.36	0.01
NTPC STATIONS-ER	0.05	0.001
Total	5335.19	100.00
Volume Sold by top 5 Regional Entities	2971.81	55.70

Table-12: VOLUME OF ELECTRICITY PURCHASED THROUGH BILATERAL, DECEMBER 2020

Name of the Entity	Volume of Purchase (MUs)	% of Volume
MP	1096.19	20.54
PUNJAB	1047.05	19.62
TAMIL NADU	703.39	13.18
HIMACHAL PRADESH	491.39	9.21
RAJASTHAN	416.60	7.80
UTTARAKHAND	254.61	4.77
WEST BENGAL	203.25	3.81
HARYANA	162.03	3.04
NEPAL(NVVN)	148.77	2.79
JHARKHAND	118.36	2.22
CHHATTISGARH	95.54	1.79
UTTAR PRADESH	88.69	1.66
BIHAR	87.85	1.65
ODISHA	72.41	1.36
ASSAM	59.54	1.12
DELHI	58.67	1.10
NEP	37.51	0.70
MEGHALAYA	34.49	0.65
AMPS Hazira	28.52	0.53
DVC	22.93	0.43
GOA	21.49	0.40
MAHARASHTRA	17.80	0.33
ANDHRA PRADESH	15.65	0.29
ARUNACHAL PRADESH	12.34	0.23
DADRA & NAGAR HAVELI	10.64	0.20
BANGLADESH	9.66	0.18
MANIPUR	5.86	0.11
SIKKIM	5.55	0.10
GUJARAT	3.54	0.07
KARNATAKA	3.43	0.06
TELANGANA	3.38	0.06
DAMAN AND DIU	0.73	0.01
MEENAKSHI	0.04	0.001
TOTAL	5337.91	100.00
Volume Purchased by top 5 Regional Entities	3754.63	70.34

Table-13: VOLUME OF ELECTRICITY SOLD IN DAY AHEAD MARKET THROUGH POWER EXCHANGES, DECEMBER 2020		
Name of the Entity	Volume of Sale (MUs)	% of Volume
WEST BENGAL	674.81	12.03
UTTAR PRADESH	560.37	9.99
ODISHA	551.09	9.82
JINDAL POWER	460.41	8.21
JINDAL STAGE-II	444.18	7.92
JAYPEE NIGRIE	283.00	5.04
CHHATTISGARH	223.60	3.99
MP	206.53	3.68
TEESTA STG3	168.01	2.99
DB POWER	165.34	2.95
RKM POWER	154.09	2.75
SEMBCORP	145.65	2.60
RPREL	131.11	2.34
RAJASTHAN	126.41	2.25
GUJARAT	124.50	2.22
ASSAM	95.38	1.70
THERMAL POWERTECH	90.59	1.61
KARNATAKA	89.01	1.59
BIHAR	88.11	1.57
DELHI	83.37	1.49
HIMACHAL PRADESH	80.55	1.44
REGL	61.79	1.10
ESSAR POWER	53.18	0.95
GMR KAMALANGA	48.72	0.87
MB POWER	48.69	0.87
SPECTRUM	44.76	0.80
TELANGANA	30.33	0.54
KERALA	29.32	0.52
NTPC STATIONS-WR	25.28	0.45
JHABUA POWER_MP	20.95	0.37
ACBIL	16.92	0.30
MARUTI COAL	16.80	0.30
ANDHRA PRADESH	16.61	0.30
NLC	15.48	0.28
AD HYDRO	14.69	0.26
KARCHAM WANGTOO	14.39	0.26
BALCO	14.18	0.25
MAHARASHTRA	13.91	0.25
GOA	13.03	0.23
NTPC STATIONS-SR	11.70	0.21
TRIPURA	11.50	0.20
SINGOLI BHATWARI HEP	10.92	0.19
EMCO	10.64	0.19
DIKCHU HEP	10.19	0.18
ADHUNIK POWER LTD	10.17	0.18
HARYANA	9.95	0.18
SAINJ HEP	8.62	0.15
SKS POWER	7.30	0.13

NTPC STATIONS-ER	6.80	0.12
PUNJAB	6.74	0.12
NEEPCO STATIONS	6.65	0.12
CHANDIGARH	6.31	0.11
ARUNACHAL PRADESH	6.20	0.11
SIKKIM	5.18	0.09
DVC	5.09	0.09
IL&FS	4.72	0.08
NTPC STATIONS-NER	4.66	0.08
TAMIL NADU	4.09	0.07
NTPL	3.11	0.06
MIZORAM	2.41	0.04
JITPL	2.35	0.04
JORETHANG	2.18	0.04
TASHIDENG HEP	1.63	0.03
CHUZACHEN HEP	1.59	0.03
DADRA & NAGAR HAVELI	1.56	0.03
MEENAKSHI	0.96	0.02
JHARKHAND	0.88	0.02
DHARIWAL POWER	0.72	0.01
LANCO BUDHIL	0.52	0.01
NAGALAND	0.47	0.01
ONGC PALATANA	0.05	0.001
Total	5610.99	100.00
Volume sold by top 5 Regional Entities	2690.85	47.96

Table-14: VOLUME OF ELECTRICITY PURCHASED IN DAY AHEAD MARKET THROUGH POWER EXCHANGES, DECEMBER 2020

Name of the Entity	Volume of Purchase (MUs)	% of Volume
ANDHRA PRADESH	1094.84	19.51
MAHARASHTRA	626.85	11.17
TAMIL NADU	531.92	9.48
GUJARAT	472.42	8.42
TELANGANA	444.53	7.92
RAJASTHAN	429.45	7.65
J & K	282.61	5.04
DELHI	253.53	4.52
HARYANA	241.67	4.31
UTTAR PRADESH	214.74	3.83
AMPS Hazira	192.55	3.43
PUNJAB	159.32	2.84
UTTARAKHAND	135.10	2.41
KARNATAKA	77.45	1.38
JHARKHAND	68.51	1.22
HIMACHAL PRADESH	66.45	1.18
ASSAM	49.33	0.88
BIHAR	47.36	0.84
MP	46.31	0.83
DADRA & NAGAR HAVELI	36.14	0.64
KERALA	35.59	0.63
ODISHA	25.11	0.45
GOA	19.16	0.34
DAMAN AND DIU	18.40	0.33
MEGHALAYA	8.86	0.16
CHANDIGARH	7.81	0.14
MANIPUR	7.50	0.13
KAPP 3&4	7.34	0.13
CHHATTISGARH	4.05	0.07
NAGALAND	3.04	0.05
WEST BENGAL	2.82	0.05
MEENAKSHI	0.24	0.004
NLC	0.01	0.0001
TOTAL	5610.99	100.00
Volume purchased by top 5 Regional Entities	3170.56	56.51

Table-15: VOLUME OF ELECTRICITY SOLD IN REAL TIME MARKET THROUGH POWER EXCHANGES, DECEMBER 2020

Name of the Entity	Volume of Sale (MUs)	% of Volume
ODISHA	144.42	12.79
WEST BENGAL	111.40	9.87
NLC	99.19	8.79
UTTAR PRADESH	77.90	6.90
SEMBCORP	69.16	6.13
RKM POWER	60.94	5.40
DELHI	50.90	4.51
MB POWER	43.60	3.86
RAJASTHAN	39.58	3.51
JHABUA POWER_MP	35.68	3.16
MP	35.29	3.13
NTPC STATIONS-WR	34.73	3.08
TRIPURA	26.95	2.39
NTPC STATIONS-SR	23.69	2.10
EMCO	23.03	2.04
KARNATAKA	21.54	1.91
JINDAL STAGE-II	20.95	1.86
GUJARAT	20.27	1.80
TELANGANA	19.57	1.73
NTPL	15.99	1.42
NEEPCO STATIONS	14.94	1.32
SKS POWER	14.24	1.26
NTPC STATIONS-ER	11.73	1.04
HIMACHAL PRADESH	9.83	0.87
RPREL	8.42	0.75
REGL	7.38	0.65
GMR KAMALANGA	7.03	0.62
JINDAL POWER	6.98	0.62
MAHARASHTRA	6.64	0.59
MEENAKSHI	6.02	0.53
KERALA	5.86	0.52
BALCO	5.46	0.48
SIKKIM	5.45	0.48
DVC	4.78	0.42
MANIPUR	4.73	0.42
CHHATTISGARH	4.70	0.42
THERMAL POWERTECH	3.67	0.33
TRN ENERGY	3.64	0.32
NTPC STATIONS-NR	2.96	0.26
SASAN UMPP	2.78	0.25
DB POWER	2.63	0.23
J & K	2.43	0.22
NTPC STATIONS-NER	2.10	0.19
PUNJAB	1.82	0.16
SINGOLI BHATWARI HEP	1.00	0.09
TAMIL NADU	0.97	0.09
MARUTI COAL	0.96	0.08
ONGC PALATANA	0.84	0.07
BRBCL,NABINAGAR	0.74	0.07
IL&FS	0.72	0.06
HARYANA	0.60	0.05

ANDHRA PRADESH	0.57	0.05
NSPCL	0.50	0.04
BIHAR	0.49	0.04
CGPL	0.34	0.03
DHARIWAL POWER	0.17	0.02
RGPPL	0.12	0.01
ARUNACHAL PRADESH	0.03	0.003
CHANDIGARH	0.02	0.002
KARCHAM WANGTOO	0.02	0.002
RANGANADI HEP	0.003	0.0003
Total	1129.09	100.00
Volume sold by top 5 Regional Entities	502.08	44.47

Table-16: VOLUME OF ELECTRICITY PURCHASED IN REAL TIME MARKET THROUGH POWER EXCHANGES, DECEMBER 2020		
Name of the Entity	Volume of Purchase (MUs)	% of Volume
J & K	482.94	42.77
RAJASTHAN	117.21	10.38
TELANGANA	99.14	8.78
ANDHRA PRADESH	77.72	6.88
MAHARASHTRA	59.28	5.25
UTTAR PRADESH	42.04	3.72
DELHI	30.06	2.66
ODISHA	22.30	1.98
CHHATTISGARH	21.82	1.93
GUJARAT	18.82	1.67
WEST BENGAL	17.29	1.53
BIHAR	15.82	1.40
HIMACHAL PRADESH	14.10	1.25
HARYANA	13.32	1.18
TAMIL NADU	13.28	1.18
PUNJAB	13.14	1.16
DVC	10.62	0.94
MEGHALAYA	8.36	0.74
KARNATAKA	7.14	0.63
AMPS Hazira	6.46	0.57
JINDAL STAGE-II	6.28	0.56
MANIPUR	6.25	0.55
ASSAM	5.67	0.50
JHARKHAND	5.56	0.49
KERALA	4.51	0.40
JINDAL POWER	3.27	0.29
DADRA & NAGAR HAVELI	1.97	0.17
UTTARAKHAND	1.47	0.13
GOA	1.24	0.11
MP	0.92	0.08
NAGALAND	0.50	0.04
DAMAN AND DIU	0.29	0.03
CHANDIGARH	0.18	0.02
MEENAKSHI	0.04	0.004
SIKKIM	0.02	0.002
ARUNACHAL PRADESH	0.02	0.002
REGL	0.01	0.001
NLC	0.0001	0.00001
TOTAL	1129.09	100.00
Volume purchased by top 5 Regional Entities	836.30	74.07

Table-17: VOLUME OF ELECTRICITY UNDER DRAWAL (EXPORTED) THROUGH DSM, DECEMBER 2020		
Name of the Entity	Volume of Under drawal (MUs)	% of Volume
UTTAR PRADESH	106.30	5.53
NTPC STATIONS-WR	105.32	5.48
MAHARASHTRA	83.04	4.32
MP	79.91	4.16
KARNATAKA	76.36	3.98
TAMIL NADU	74.22	3.86
NHPC STATIONS	69.95	3.64
CHUKHA HEP	64.33	3.35
SASAN UMPP	62.56	3.26
GUJARAT	62.20	3.24
TELANGANA	57.72	3.00
RAJASTHAN	55.71	2.90
PUNJAB	50.28	2.62
ODISHA	46.86	2.44
NLC	40.83	2.13
HARYANA	40.72	2.12
ANDHRA PRADESH	40.65	2.12
NTPC STATIONS-SR	40.01	2.08
BIHAR	37.56	1.96
NTPC STATIONS-NR	36.73	1.91
NTPC STATIONS-ER	35.76	1.86
DVC	29.53	1.54
J & K	28.62	1.49
DELHI	26.18	1.36
WEST BENGAL	25.59	1.33
KAPP 3&4	23.43	1.22
CHHATTISGARH	20.75	1.08
AMPS Hazira	20.70	1.08
HIMACHAL PRADESH	17.28	0.90
GIWEL_BHUI	16.79	0.87
JINDAL STAGE-II	16.73	0.87
UTTARAKHAND	13.46	0.70
BBMB	12.15	0.63
JHARKHAND	11.60	0.60
TRIPURA	10.60	0.55
MB POWER	10.56	0.55
KERALA	10.54	0.55
PONDICHERRY	10.14	0.53
GIWEL_TCN	8.97	0.47
JINDAL POWER	8.93	0.46
BANGLADESH	8.11	0.42
RENEW_BHACHAU	7.83	0.41
ORANGE_TCN	7.76	0.40
OSTRO	7.66	0.40
TATA_PVGD	7.24	0.38
ALFANAR_BHUI	7.17	0.37
GOA	7.11	0.37
DB POWER	6.31	0.33
NEEPCO STATIONS	6.28	0.33
MAITHON POWER LTD	5.77	0.30
JHABUA POWER_MP	5.57	0.29
RPREL	5.51	0.29
NJPC	5.49	0.29
BETAM_TCN	5.19	0.27
TEESTA HEP	5.15	0.27
JAYPEE NIGRIE	5.13	0.27
ASSAM	5.09	0.27
RENEW_BHUI	4.79	0.25

LANKO_AMK	4.44	0.23
REGL	4.07	0.21
FORTUM2_PVGD	4.04	0.21
ACBIL	4.04	0.21
GMR KAMALANGA	4.03	0.21
CGPL	4.02	0.21
EMCO	3.98	0.21
RAP C	3.97	0.21
DADRA & NAGAR HAVELI	3.95	0.21
MYTRAH_TCN	3.94	0.21
TEHRI	3.92	0.20
MEGHALAYA	3.87	0.20
SEMBCORP	3.85	0.20
CLEAN_SLR	3.78	0.20
SIKKIM	3.70	0.19
RAMPUR HEP	3.67	0.19
KARCHAM WANGTOO	3.56	0.19
SBG_NPK	3.51	0.18
BARC	3.48	0.18
ARUNACHAL PRADESH	3.33	0.17
PARAM_PVGD	3.26	0.17
ADHUNIK POWER LTD	3.20	0.17
AVAADA2_PVGD	3.15	0.16
MANGDECHU HEP	3.10	0.16
NTPC_ANTP	3.09	0.16
ARINSUM RUMS	3.03	0.16
AGEMPL BHUJ	3.01	0.16
AVAADA1_PVGD	2.98	0.16
SBG_PVGD	2.85	0.15
MANIPUR	2.76	0.14
INOX_BHUJ	2.74	0.14
DHARIWAL POWER	2.74	0.14
RKM POWER	2.74	0.14
MAHINDRA_RUMS	2.69	0.14
CHANDIGARH	2.50	0.13
NPGC	2.49	0.13
COASTGEN	2.46	0.13
TRN ENERGY	2.33	0.12
ACME_RUMS	2.31	0.12
AZURE_SLR	2.24	0.12
ESSAR POWER	2.13	0.11
AZURE_PVGD	2.13	0.11
RGPPL	2.10	0.11
ACME_SLR	2.09	0.11
SINGOLI BHATWARI HEP	2.05	0.11
KOTESHWAR	1.99	0.10
THERMAL POWERTECH	1.95	0.10
BRBCL,NABINAGAR	1.91	0.10
RENEW_SLR_BKN	1.83	0.10
ABSP_ANTP	1.79	0.09
AZURE34_SLR	1.74	0.09
TATA_ANTP	1.74	0.09
ARERJL_SLR	1.71	0.09
MIZORAM	1.67	0.09
TATA_SLR	1.67	0.09
NTPC STATIONS-NER	1.66	0.09
NSPCL	1.66	0.09
AKSP_ANTP	1.58	0.08
TEESTA STG3	1.55	0.08
RAP B	1.54	0.08
NEPAL(NVVN)	1.51	0.08
NAGALAND	1.47	0.08

SB_SLR	1.47	0.08
SPRNG_NPKUNTA	1.43	0.07
KSK MAHANADI	1.42	0.07
DAMAN AND DIU	1.41	0.07
IGSTPS	1.36	0.07
NTPL	1.33	0.07
SAINJ HEP	1.24	0.06
NAPP	1.23	0.06
KREDL_PVGD	1.22	0.06
FORTUM1_PVGD	1.22	0.06
RANGANADI HEP	1.22	0.06
ADY6_PVGD	1.16	0.06
JITPL	1.16	0.06
YARROW_PVGD	1.16	0.06
MEENAKSHI	1.12	0.06
ADY3_PVGD	1.11	0.06
NEP	1.09	0.06
BHADRAVATHI HVDC	1.08	0.06
AHSP_ANTP	1.07	0.06
ADY2_PVGD	1.07	0.06
IL&FS	1.01	0.05
RANGIT HEP	0.99	0.05
ADY13_PVGD	0.98	0.05
SKS POWER	0.96	0.05
MTPS II	0.95	0.05
ADY1_PVGD	0.93	0.05
NETCL VALLUR	0.91	0.05
FRV_NPK	0.90	0.05
AZURE_ANTP	0.90	0.05
ONGC PALATANA	0.86	0.04
ADY10_PVGD	0.86	0.04
DIKCHU HEP	0.83	0.04
RENEW_PVGD	0.72	0.04
AKS_PVGD	0.70	0.04
KSMPL_SLR	0.69	0.04
BALCO	0.68	0.04
AD HYDRO	0.62	0.03
ARS_PVGD	0.61	0.03
CHUZACHEN HEP	0.60	0.03
ASEJTL_SLR	0.59	0.03
FRV_ANTP	0.56	0.03
TASHIDENG HEP	0.56	0.03
DCPP	0.48	0.03
PARE HEP	0.48	0.02
DOYANG HEP	0.43	0.02
JORETHANG	0.40	0.02
SHREE CEMENT	0.37	0.02
VINDHYACHAL HVDC	0.34	0.02
RENEW_SLR	0.31	0.02
AYANA_NPKUNTA	0.22	0.01
LOKTAK	0.22	0.01
HVDC ALPD	0.17	0.01
LANCO BUDHIL	0.13	0.01
RAIL	0.11	0.01
NFF	0.11	0.01
HVDC RAIGARH	0.10	0.01
HVDC CHAMPA	0.01	0.001
HVDC PUS	0.004	0.0002
Total	1920.90	100.00
Volume Exported by top 5 Regional Entities	450.93	23.48

Table-18: VOLUME OF ELECTRICITY OVER DRAWAL (IMPORTED) THROUGH DSM, DECEMBER 2020

Name of the Entity	Volume of Over drawal (MUs)	% of Volume
RAJASTHAN	100.03	5.62
TALA HEP	96.61	5.42
NTPC STATIONS-WR	61.67	3.46
NTPC STATIONS-NR	61.52	3.45
GUJARAT	61.22	3.44
NTPC STATIONS-ER	60.99	3.42
MAHARASHTRA	55.13	3.09
UTTAR PRADESH	52.52	2.95
HARYANA	46.94	2.64
TAMIL NADU	41.60	2.34
TELANGANA	39.87	2.24
MP	39.08	2.19
WEST BENGAL	38.81	2.18
BIHAR	36.58	2.05
NTPC STATIONS-SR	36.29	2.04
ANDHRA PRADESH	36.02	2.02
J & K	34.66	1.95
KARNATAKA	34.57	1.94
DVC	34.47	1.94
UTTARAKHAND	31.52	1.77
NLC	30.94	1.74
KERALA	30.39	1.71
AMPS Hazira	26.74	1.50
HIMACHAL PRADESH	26.54	1.49
CGPL	26.45	1.48
PUNJAB	26.16	1.47
CHHATTISGARH	25.23	1.42
KURICHU HEP	23.28	1.31
RPREL	21.85	1.23
RAIL	21.40	1.20
JHARKHAND	20.51	1.15
ODISHA	19.88	1.12
ASSAM	17.81	1.00
NHPC STATIONS	17.41	0.98
BALCO	16.08	0.90
NEPAL(NVVN)	14.32	0.80
DELHI	13.84	0.78
REGL	12.48	0.70
JHABUA POWER_MP	12.44	0.70
RGPPL	11.71	0.66
THERMAL POWERTECH	11.67	0.66
NETCL VALLUR	10.71	0.60
JINDAL STAGE-II	9.48	0.53
GIWEL_TCN	9.34	0.52
MYTRAH_TCN	8.93	0.50
EMCO	8.52	0.48
GIWEL_BHUJ	8.44	0.47
MB POWER	8.36	0.47
DADRA & NAGAR HAVELI	8.33	0.47
SEMBCORP	7.86	0.44
DB POWER	7.63	0.43
DAMAN AND DIU	7.33	0.41
CHANDIGARH	7.17	0.40
BANGLADESH	7.11	0.40
IGSTPS	6.89	0.39
ORANGE_TCN	6.81	0.38
TEESTA STG3	6.61	0.37
DAGACHU	6.23	0.35
AGEMPL BHUJ	5.50	0.31

OSTRO	5.47	0.31
NPGC	5.23	0.29
ALFANAR_BHUJ	5.15	0.29
NTPC_ANTP	5.14	0.29
RENEW_BHACHAU	5.13	0.29
BETAM_TCN	5.10	0.29
BBMB	5.07	0.28
MAITHON POWER LTD	4.70	0.26
GOA	4.64	0.26
TATA_PVGD	4.36	0.24
BRBCL,NABINAGAR	4.30	0.24
MEGHALAYA	4.04	0.23
NTPC STATIONS-NER	3.90	0.22
ARUNACHAL PRADESH	3.76	0.21
MIZORAM	3.59	0.20
MTPS II	3.54	0.20
ACME_RUMS	3.50	0.20
RENEW_SLR_BKN	3.42	0.19
FORTUM2_PVGD	3.31	0.19
SBG_NPK	3.30	0.18
RKM POWER	3.23	0.18
ARERJL_SLR	3.22	0.18
MANGDECHU HEP	3.16	0.18
CLEAN_SLR	3.08	0.17
INOX_BHUJ	3.08	0.17
COASTGEN	3.01	0.17
NAPP	2.99	0.17
ARINSUM_RUMS	2.93	0.16
ADHUNIK POWER LTD	2.92	0.16
MANIPUR	2.90	0.16
TEHRI	2.88	0.16
JORETHANG	2.73	0.15
ACBIL	2.70	0.15
MAHINDRA_RUMS	2.61	0.15
AVAADA1_PVGD	2.54	0.14
SIKKIM	2.48	0.14
KARCHAM WANGTOO	2.43	0.14
NSPCL	2.39	0.13
PONDICHERRY	2.38	0.13
KSK MAHANADI	2.36	0.13
RENEW_BHUJ	2.22	0.12
SBG_PVGD	2.19	0.12
PARAM_PVGD	2.08	0.12
ESSAR POWER	2.02	0.11
IL&FS	1.98	0.11
MEENAKSHI	1.97	0.11
JITPL	1.93	0.11
NAGALAND	1.89	0.11
AYANA_NPKUNTA	1.81	0.10
NJPC	1.74	0.10
TASHIDENG HEP	1.67	0.09
SB_SLR	1.67	0.09
AVAADA2_PVGD	1.62	0.09
NEP	1.60	0.09
JINDAL POWER	1.57	0.09
ACME_SLR	1.53	0.09
FORTUM1_PVGD	1.52	0.09
TRIPURA	1.50	0.08
RANGANADI HEP	1.44	0.08
AZURE_SLR	1.37	0.08
KOTESHWAR	1.37	0.08
AZURE_PVGD	1.31	0.07

JAYPEE NIGRIE	1.31	0.07
TATA_ANTP	1.22	0.07
NTPL	1.19	0.07
TATA_SLR	1.10	0.06
GMR KAMALANGA	1.06	0.06
FRV_ANTP	1.04	0.06
DGEN MEGA POWER	1.03	0.06
NEEPCO STATIONS	0.98	0.05
ONGC PALATANA	0.97	0.05
RANGIT HEP	0.88	0.05
FRV_NPK	0.83	0.05
AHSP_ANTP	0.81	0.05
AZURE34_SLR	0.81	0.05
ADY1_PVGD	0.78	0.04
AZURE_ANTP	0.76	0.04
ADY2_PVGD	0.74	0.04
YARROW_PVGD	0.74	0.04
ADY10_PVGD	0.73	0.04
AKS_PVGD	0.72	0.04
RENEW_PVGD	0.70	0.04
DIKCHU HEP	0.70	0.04
ADY13_PVGD	0.69	0.04
ARS_PVGD	0.67	0.04
RENEW_SLR	0.66	0.04
RAP B	0.65	0.04
SASAN UMPP	0.63	0.04
ADY6_PVGD	0.59	0.03
ADY3_PVGD	0.59	0.03
SIMHAPURI	0.57	0.03
AKSP_ANTP	0.49	0.03
ABSP_ANTP	0.47	0.03
SPRNG_NPKUNTA	0.47	0.03
LANKO KONDAPALLI	0.46	0.03
KREDL_PVGD	0.41	0.02
ASEJTL_SLR	0.41	0.02
HVDC CHAMPA	0.41	0.02
DHARIWAL POWER	0.38	0.02
AD HYDRO	0.38	0.02
KSMPL_SLR	0.37	0.02
TEESTA HEP	0.37	0.02
TRN ENERGY	0.34	0.02
SAINJ HEP	0.34	0.02
SHREE CEMENT	0.31	0.02
CHUZACHEN HEP	0.30	0.02
RAMPUR HEP	0.24	0.01
DOYANG HEP	0.23	0.01
LANCO BUDHIL	0.23	0.01
RAP C	0.23	0.01
LOKTAK	0.22	0.01
DCPP	0.17	0.01
SKS POWER	0.17	0.01
HVDC PUS	0.14	0.01
SINGOLI BHATWARI HEP	0.13	0.01
PARE HEP	0.10	0.01
LANKO_AMK	0.10	0.01
NFF	0.09	0.005
HVDC RAIGARH	0.08	0.004
HVDC ALPD	0.05	0.003
CHUKHA HEP	0.004	0.0002
TOTAL	1781.39	100.00
Volume Imported by top 5 Regional Entities	381.06	21.39

Table-19: TOTAL VOLUME OF NET SHORT-TERM TRANSACTIONS OF ELECTRICITY (REGIONAL ENTITY-WISE), DECEMBER 2020		
S. No.	Name of the Entity	Total volume of net short-term transactions of electricity*
1	TAMIL NADU	1210.91
2	ANDHRA PRADESH	1159.19
3	MP	846.87
4	RAJASTHAN	813.73
5	J & K	731.00
6	MAHARASHTRA	642.63
7	HIMACHAL PRADESH	484.30
8	UTTARAKHAND	407.50
9	TELANGANA	392.62
10	HARYANA	309.61
11	AMPS Hazira	233.58
12	PUNJAB	219.25
13	JHARKHAND	200.47
14	NEPAL(NVVN)	161.58
15	TALA HEP	96.61
16	BIHAR	58.54
17	DADRA & NAGAR HAVELI	51.58
18	MEGHALAYA	50.51
19	NEP	38.02
20	ASSAM	31.87
21	GOA	26.40
22	DAMAN AND DIU	25.32
23	KERALA	24.77
24	KURICHU HEP	23.28
25	CGPL	22.08
26	NTPC STATIONS-NR	21.84
27	RAIL	21.29
28	MANIPUR	15.02
29	NETCL VALLUR	9.80
30	RGPPL	9.48
31	BANGLADESH	8.67
32	NTPC STATIONS-ER	6.65
33	ARUNACHAL PRADESH	6.55
34	CHANDIGARH	6.33
35	IGSTPS	5.53
36	MYTRAH_TCN	4.99
37	NPGC	2.74
38	MTPS II	2.60
39	AGEMPL BHUJ	2.50
40	NTPC_ANTP	2.05
41	NAPP	1.76
42	BRBCL,NABINAGAR	1.65
43	AYANA_NPKUNTA	1.58
44	RENEW_SLR_BKN	1.58
45	ARERJL_SLR	1.51
46	ACME_RUMS	1.19
47	DGEN MEGA POWER	1.03
48	KSK MAHANADI	0.93
49	SIMHAPURI	0.57
50	COASTGEN	0.55
51	FRV_ANTP	0.48
52	LANKO KONDAPALLI	0.46
53	HVDC CHAMPA	0.39
54	GIWEL_TCN	0.37
55	RENEW_SLR	0.35
56	INOX_BHUJ	0.33
57	FORTUMI_PVGD	0.30
58	NSPCL	0.23
59	RANGANADI HEP	0.22
60	SB_SLR	0.20

61	HVDC PUS	0.14
62	MANGDECHU HEP	0.06
63	ARS_PVGD	0.06
64	AKS_PVGD	0.02
65	LOKTAK	-0.002
66	RENEW_PVGD	-0.02
67	NFF	-0.02
68	HVDC RAIGARH	-0.03
69	SHREE CEMENT	-0.06
70	FRV_NPK	-0.07
71	MAHINDRA_RUMS	-0.08
72	BETAM_TCN	-0.09
73	ARINSUM_RUMS	-0.10
74	RANGIT HEP	-0.11
75	HVDC ALPD	-0.12
76	ADY10_PVGD	-0.13
77	AZURE_ANTP	-0.14
78	ADY1_PVGD	-0.15
79	ASEJTL_SLR	-0.18
80	DOYANG HEP	-0.19
81	SBG_NPK	-0.21
82	AHSP_ANTP	-0.26
83	ADY13_PVGD	-0.29
84	DCPP	-0.31
85	KSMPL_SLR	-0.32
86	ADY2_PVGD	-0.34
87	VINDHYACHAL HVDC	-0.34
88	PARE HEP	-0.38
89	YARROW_PVGD	-0.42
90	LANCO BUDHIL	-0.43
91	AVAADA1_PVGD	-0.44
92	MIZORAM	-0.50
93	TATA_ANTP	-0.51
94	ADY3_PVGD	-0.52
95	ACME_SLR	-0.56
96	TATA_SLR	-0.56
97	ADY6_PVGD	-0.57
98	KOTESHWAR	-0.62
99	SBG_PVGD	-0.66
100	CLEAN_SLR	-0.70
101	FORTUM2_PVGD	-0.74
102	KREDL_PVGD	-0.81
103	AZURE_PVGD	-0.82
104	AZURE_SLR	-0.87
105	RAP B	-0.89
106	AZURE34_SLR	-0.93
107	ORANGE_TCN	-0.95
108	SPRNG_NPKUNTA	-0.96
109	TEHRI	-1.04
110	MAITHON POWER LTD	-1.07
111	BHADRAVATHI HVDC	-1.08
112	AKSP_ANTP	-1.09
113	PARAM_PVGD	-1.17
114	ABSP_ANTP	-1.32
115	AVAADA2_PVGD	-1.52
116	NAGALAND	-1.72
117	ALFANAR_BHUI	-2.02
118	OSTRO	-2.19
119	RENEW_BHUI	-2.57
120	RENEW BHACHAU	-2.70
121	TATA_PVGD	-2.88
122	DHARIWAL POWER	-3.25
123	RAMPUR HEP	-3.44
124	BARC	-3.48
125	RAP C	-3.75

126	NJPC	-3.75
127	IL&FS	-4.46
128	TEESTA HEP	-4.79
129	NTPC STATIONS-NER	-5.17
130	MEENAKSHI	-5.80
131	BBMB	-7.08
132	PONDICHERRY	-7.76
133	GIWEL_BHUI	-8.35
134	SAINJ HEP	-9.53
135	SIKKIM	-10.21
136	DIKCHU HEP	-10.32
137	CHUZACHEN HEP	-11.69
138	TASHIDENG HEP	-12.45
139	LANKO_AMK	-12.90
140	TRN ENERGY	-13.03
141	SINGOLI BHATWARI HEP	-13.83
142	AD HYDRO	-14.93
143	JORETHANG	-15.24
144	KARCHAM WANGTOO	-15.54
145	KAPP 3&4	-16.09
146	MARUTI COAL	-17.76
147	ACBIL	-19.00
148	NTPL	-19.23
149	DELHI	-21.50
150	DAGACHU	-21.61
151	EMCO	-29.12
152	BALCO	-33.76
153	NTPC STATIONS-SR	-39.11
154	SPECTRUM	-44.76
155	TRIPURA	-47.54
156	JHABUA POWER_MP	-49.76
157	NHPC STATIONS	-52.54
158	ONGC PALATANA	-54.37
159	GMR KAMALANGA	-58.72
160	CHUKHA HEP	-64.33
161	SASAN UMPP	-64.71
162	JITPL	-67.43
163	NEEPCO STATIONS	-77.72
164	THERMAL POWERTECH	-84.53
165	KARNATAKA	-98.47
166	NTPC STATIONS-WR	-103.66
167	NLC	-124.56
168	ADHUNIK POWER LTD	-128.82
169	SKS POWER	-130.25
170	DVC	-155.69
171	TEESTA STG3	-162.94
172	ESSAR POWER	-188.60
173	MB POWER	-207.65
174	RKM POWER	-214.54
175	GUJARAT	-247.17
176	CHHATTISGARH	-307.82
177	REGL	-329.70
178	JAYPEE NIGRIE	-368.11
179	DB POWER	-378.52
180	JINDAL POWER	-471.84
181	JINDAL STAGE-II	-539.65
182	WEST BENGAL	-553.84
183	ODISHA	-616.48
184	UTTAR PRADESH	-688.60
185	RPREL	-699.41
186	SEMBCORP	-700.58

* 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-20: DETAILS OF CONGESTION IN POWER EXCHANGES, DECEMBER 2020					
	Details of Congestion	Day Ahead Market		Real Time Market	
		IEX	PXIL	IEX	PXIL
A	Unconstrained Cleared Volume (MUs)	5605.40	5.42	1129.11	0.00
B	Actual Cleared Volume and hence scheduled (MUs)	5605.58*	5.42	1129.09	0.00
C	Volume of electricity that could not be cleared and hence not scheduled because of congestion (MUs)	0.00	0.00	0.02	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	0.00	0.00
E	Volume of electricity that could not be cleared as % to Unconstrained Cleared Volume	0.00%	0.00%	0.002%	0.00%
F	Percentage of the time congestion occurred during the month (Number of hours congestion occurred/Total number of hours in the month)	0.10%	0.00%	0.27%	0.00%
G	Congestion occurrence (%) time block wise				
	0.00 - 6.00 hours	0.00%	0.00%	0.00%	0.00%
	6.00 - 12.00 hours	100.00%	0.00%	0.00%	0.00%
	12.00 - 18.00 hours	0.00%	0.00%	50.00%	0.00%
	18.00 - 24.00 hours	0.00%	0.00%	50.00%	0.00%
* Congestion in 3 time blocks on 19th of Dec resulted into overall change in the selection and de-selection of bids across the day, which led to increase in the final volume cleared, compared to the unconstrained volume in DAM at IEX.					
Source: IEX, PXIL & NLDC					

Table-21: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY IN INDIA (DAY-WISE) (MUs), DECEMBER 2020								
Date	Bilateral		Day Ahead Market [#]		Real Time Market [#]		Deviation Settlement (Over Drawl+Under Generation)	Total Electricity Generation (MU) as given at CEA Website*
	Through Traders and PXs**	Direct	IEX	PXIL	IEX	PXIL		
1-Dec-20	108.66	56.05	143.02	0.27	46.52	0.00	56.89	3225.19
2-Dec-20	114.66	56.84	156.16	0.00	37.10	0.00	57.88	3311.07
3-Dec-20	106.44	57.33	171.35	0.32	39.70	0.00	60.57	3340.22
4-Dec-20	107.10	57.63	166.86	0.24	51.34	0.00	59.16	3334.70
5-Dec-20	103.93	57.31	171.94	0.38	44.11	0.00	59.47	3324.24
6-Dec-20	107.12	56.17	166.94	0.20	24.28	0.00	58.29	3166.98
7-Dec-20	118.10	58.21	171.43	0.15	33.33	0.00	61.14	3284.73
8-Dec-20	117.49	57.00	164.61	0.35	29.03	0.00	58.59	3311.75
9-Dec-20	115.26	56.25	154.10	0.22	31.51	0.00	58.36	3308.69
10-Dec-20	115.78	56.71	163.54	0.25	24.56	0.00	58.53	3300.81
11-Dec-20	118.69	57.73	166.30	0.12	29.64	0.00	57.56	3257.14
12-Dec-20	119.45	57.24	170.13	0.16	25.27	0.00	65.71	3185.16
13-Dec-20	119.36	57.19	156.40	0.32	26.35	0.00	58.41	3098.73
14-Dec-20	108.46	57.94	178.51	0.08	24.09	0.00	60.04	3188.72
15-Dec-20	111.20	58.14	170.33	0.19	39.05	0.00	62.46	3269.65
16-Dec-20	100.36	56.57	182.49	0.20	46.65	0.00	62.84	3264.94
17-Dec-20	115.14	56.83	198.33	0.30	38.73	0.00	62.78	3346.41
18-Dec-20	117.33	57.21	198.71	0.32	44.55	0.00	61.52	3394.53
19-Dec-20	116.68	57.50	196.73	0.11	40.99	0.00	62.44	3345.30
20-Dec-20	120.02	57.87	205.37	0.02	42.87	0.00	62.11	3268.37
21-Dec-20	127.24	57.18	188.60	0.03	38.95	0.00	57.02	3398.55
22-Dec-20	129.92	56.93	184.67	0.15	39.58	0.00	59.56	3482.80
23-Dec-20	124.56	56.85	191.36	0.14	33.87	0.00	56.84	3498.69
24-Dec-20	124.95	58.49	177.99	0.04	40.42	0.00	57.49	3504.06
25-Dec-20	119.09	57.38	194.85	0.06	41.69	0.00	57.12	3477.56
26-Dec-20	120.20	57.94	202.43	0.14	43.69	0.00	55.26	3521.84
27-Dec-20	120.76	55.95	194.66	0.11	27.89	0.00	59.54	3365.88
28-Dec-20	106.58	58.23	207.05	0.18	29.73	0.00	59.10	3481.44
29-Dec-20	106.00	57.98	200.69	0.11	40.88	0.00	59.36	3486.00
30-Dec-20	110.28	59.43	206.78	0.23	34.75	0.00	62.68	3446.70
31-Dec-20	107.70	59.31	203.25	0.05	37.96	0.00	62.35	3464.75
Total	3558.51	1779.40	5605.58	5.42	1129.09	0.00	1851.06	103655.60
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.								
# Scheduled volume of all the bid areas.								

Table-22: PRICE OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (DAY-WISE)(₹/kWh), DECEMBER 2020									
Market Segment	Day ahead market of IEX			Day ahead market of PXIL			Under Drawl/Over Drawl from the Grid (DSM)		
Date	Minimum ACP	Maximum ACP	Weighted Average Price*	Minimum ACP	Maximum ACP	Weighted Average Price*	All India Grid		
							Minimum Price	Maximum Price	Average Price**
1-Dec-20	2.00	3.75	2.84	3.03	3.33	3.11	0.00	5.34	2.21
2-Dec-20	2.00	3.72	2.84	-	-	-	0.00	6.68	2.65
3-Dec-20	2.00	4.74	2.88	2.70	3.37	2.95	0.00	8.00	3.31
4-Dec-20	2.05	3.85	2.83	2.50	3.10	2.97	0.00	8.00	3.38
5-Dec-20	2.01	4.50	3.07	3.01	3.49	3.24	0.00	7.36	2.79
6-Dec-20	2.05	3.60	2.68	2.99	3.60	3.30	0.00	7.66	2.54
7-Dec-20	1.68	4.08	2.82	3.01	5.99	3.27	0.00	8.00	2.61
8-Dec-20	1.80	3.78	2.70	2.85	3.01	2.96	0.00	4.94	1.85
9-Dec-20	1.85	3.80	2.72	2.99	4.95	3.35	0.00	6.31	2.28
10-Dec-20	1.57	3.63	2.70	2.90	3.59	3.05	0.00	4.60	1.72
11-Dec-20	1.70	3.52	2.72	2.88	4.95	3.37	0.00	6.64	2.98
12-Dec-20	1.83	3.61	2.74	2.99	4.95	3.27	0.00	6.99	2.32
13-Dec-20	2.00	2.97	2.62	2.96	2.99	2.99	0.00	5.27	1.86
14-Dec-20	1.85	3.50	2.78	2.99	3.32	3.08	0.00	8.00	2.44
15-Dec-20	1.94	3.46	2.72	2.99	3.18	3.00	0.00	8.00	2.83
16-Dec-20	1.72	3.90	2.82	2.99	2.99	2.99	0.00	8.00	2.95
17-Dec-20	1.93	4.25	3.08	2.34	3.49	2.88	0.00	7.68	3.13
18-Dec-20	2.00	5.00	3.22	2.00	3.59	2.55	0.00	8.00	2.94
19-Dec-20	1.98	5.25	3.20	2.99	3.59	3.38	0.00	6.13	2.46
20-Dec-20	1.83	4.50	2.96	3.37	3.49	3.45	0.00	7.35	2.00
21-Dec-20	1.93	5.80	3.39	3.25	3.49	3.44	0.00	7.40	2.66
22-Dec-20	1.87	5.99	3.22	3.49	3.59	3.50	0.00	7.69	3.17
23-Dec-20	1.80	6.05	3.45	3.25	3.49	3.47	0.00	6.20	2.95
24-Dec-20	1.62	6.05	3.30	3.25	3.49	3.41	0.00	8.00	2.86
25-Dec-20	1.80	5.80	3.23	2.99	2.99	2.99	0.00	8.00	2.89
26-Dec-20	1.77	6.00	3.47	3.25	3.49	3.47	0.00	5.92	2.92
27-Dec-20	1.88	5.50	2.99	2.99	2.99	2.99	0.00	5.74	2.57
28-Dec-20	1.74	6.00	3.13	3.25	3.49	3.48	0.00	5.78	2.38
29-Dec-20	1.90	5.00	3.11	3.49	3.49	3.49	0.00	8.00	2.97
30-Dec-20	2.00	5.00	3.29	3.49	4.50	3.87	0.00	8.00	3.66
31-Dec-20	1.88	5.90	3.37	3.55	4.85	4.53	0.00	8.00	4.07
	1.57[#]	6.05[#]	3.01	2.00[#]	5.99[#]	3.16	0.00[#]	8.00[#]	2.72

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-23: PRICE OF REAL TIME MARKET TRANSACTIONS OF ELECTRICITY (DAY-WISE) (₹/kWh), DECEMBER 2020						
Market Segment	Real Time market of IEX			Real Time market of PXIL		
Date	Minimum ACP	Maximum ACP	Weighted Average Price*	Minimum ACP	Maximum ACP	Weighted Average Price*
1-Dec-20	1.99	15.00	3.02	--	--	--
2-Dec-20	2.00	6.50	2.88	--	--	--
3-Dec-20	1.90	5.00	3.10	--	--	--
4-Dec-20	2.36	6.20	3.68	--	--	--
5-Dec-20	1.55	6.00	3.44	--	--	--
6-Dec-20	1.95	3.60	2.64	--	--	--
7-Dec-20	2.13	5.40	3.02	--	--	--
8-Dec-20	2.00	4.50	2.82	--	--	--
9-Dec-20	1.80	4.00	2.72	--	--	--
10-Dec-20	1.60	3.35	2.41	--	--	--
11-Dec-20	1.54	3.60	2.62	--	--	--
12-Dec-20	1.00	3.50	2.47	--	--	--
13-Dec-20	1.65	3.14	2.52	--	--	--
14-Dec-20	1.00	6.00	2.60	--	--	--
15-Dec-20	1.55	3.70	2.83	--	--	--
16-Dec-20	1.84	4.00	3.04	--	--	--
17-Dec-20	1.70	7.00	3.28	--	--	--
18-Dec-20	2.00	7.00	3.66	--	--	--
19-Dec-20	1.84	6.00	3.28	--	--	--
20-Dec-20	2.15	4.50	2.91	--	--	--
21-Dec-20	1.67	6.00	3.37	--	--	--
22-Dec-20	1.70	6.90	3.72	--	--	--
23-Dec-20	1.65	7.00	3.16	--	--	--
24-Dec-20	1.48	6.00	3.05	--	--	--
25-Dec-20	1.50	5.00	3.10	--	--	--
26-Dec-20	1.96	6.05	3.42	--	--	--
27-Dec-20	1.50	3.25	2.50	--	--	--
28-Dec-20	1.49	3.74	2.70	--	--	--
29-Dec-20	1.50	6.00	3.23	--	--	--
30-Dec-20	1.60	7.00	3.23	--	--	--
31-Dec-20	0.90	7.00	4.01	--	--	--
	0.90#	15.00#	3.11	--	--	--

Source:IEX and PXIL

* 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.

Maximum/Minimum in the month

Table-24: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (REGIONAL ENTITY*-WISE) (MUs), DECEMBER 2020										
Name of the Entity	Through Bilateral			Through Power Exchange (DAM + RTM)			Through DSM with Regional Grid			Total Net***
	Sale	Purchase	Net**	Sale	Purchase	Net**	Import (Over Drawl)	Export (Under Drawl)	Net**	
PUNJAB	967.58	1047.05	79.47	8.57	172.46	163.89	26.16	50.28	-24.12	219.25
HARYANA	103.08	162.03	58.95	10.55	254.99	244.44	46.94	40.72	6.22	309.61
RAJASTHAN	27.88	416.60	388.73	165.99	546.67	380.67	100.03	55.71	44.33	813.73
DELHI	217.14	58.67	-158.47	134.27	283.59	149.31	13.84	26.18	-12.34	-21.50
UP	342.02	88.69	-253.33	638.26	256.78	-381.49	52.52	106.30	-53.78	-688.60
UTTARAKHAND	1.75	254.61	252.87	0.00	136.57	136.57	31.52	13.46	18.06	407.50
HIMACHAL P	6.51	491.39	484.88	90.38	80.55	-9.83	26.54	17.28	9.25	484.30
J & K	38.16	0.00	-38.16	2.43	765.55	763.11	34.66	28.62	6.04	731.00
CHANDIGARH	0.00	0.00	0.00	6.33	7.98	1.65	7.17	2.50	4.67	6.33
MP	13.89	1096.19	1082.29	241.82	47.22	-194.60	39.08	79.91	-40.83	846.87
MAHARASHTRA	12.85	17.80	4.95	20.55	686.13	665.58	55.13	83.04	-27.91	642.63
GUJARAT	596.21	3.54	-592.68	144.77	491.24	346.48	61.22	62.20	-0.97	-247.17
CHHATTISGARH	205.41	95.54	-109.86	228.30	25.87	-202.43	25.23	20.75	4.47	-307.82
GOA	0.00	21.49	21.49	13.03	20.40	7.37	4.64	7.11	-2.47	26.40
DAMAN AND DIU	0.00	0.73	0.73	0.00	18.68	18.68	7.33	1.41	5.91	25.32
DADRA & NAGAR H	0.00	10.64	10.64	1.56	38.11	36.55	8.33	3.95	4.38	51.58
ANDHRA PRADESH	7.22	15.65	8.43	17.18	1172.56	1155.38	36.02	40.65	-4.62	1159.19
KARNATAKA	34.15	3.43	-30.73	110.54	84.59	-25.95	34.57	76.36	-41.79	-98.47
KERALA	0.00	0.00	0.00	35.18	40.11	4.92	30.39	10.54	19.85	24.77
TAMIL NADU	0.00	703.39	703.39	5.06	545.20	540.14	41.60	74.22	-32.62	1210.91
PONDICHERRY	0.00	0.00	0.00	0.00	0.00	0.00	2.38	10.14	-7.76	-7.76
TELANGANA	86.69	3.38	-83.31	49.90	543.67	493.77	39.87	57.72	-17.84	392.62
WEST BENGAL	4.21	203.25	199.04	786.21	20.11	-766.10	38.81	25.59	13.22	-553.84
ODISHA	13.80	72.41	58.61	695.51	47.41	-648.10	19.88	46.86	-26.98	-616.48
BIHAR	2.89	87.85	84.95	88.60	63.17	-25.43	36.58	37.56	-0.98	58.54
JHARKHAND	0.00	118.36	118.36	0.88	74.08	73.20	20.51	11.60	8.91	200.47
SIKKIM	3.93	5.55	1.62	10.63	0.02	-10.61	2.48	3.70	-1.22	-10.21
DVC	184.31	22.93	-161.39	9.87	10.62	0.75	34.47	29.53	4.94	-155.69
ARUNACHAL P	0.00	12.34	12.34	6.23	0.02	-6.21	3.76	3.33	0.42	6.55
ASSAM	0.00	59.54	59.54	95.38	55.00	-40.38	17.81	5.09	12.71	31.87
MANIPUR	0.00	5.86	5.86	4.73	13.74	9.01	2.90	2.76	0.14	15.02
MEGHALAYA	1.37	34.49	33.12	0.00	17.22	17.22	4.04	3.87	0.17	50.51
MIZORAM	0.00	0.00	0.00	2.41	0.00	-2.41	3.59	1.67	1.92	-0.50
NAGALAND	5.20	0.00	-5.20	0.47	3.54	3.07	1.89	1.47	0.42	-1.72
TRIPURA	0.00	0.00	0.00	38.45	0.00	-38.45	1.50	10.60	-9.09	-47.54
NTPC STNS-NR	0.00	0.00	0.00	2.96	0.00	-2.96	61.52	36.73	24.80	21.84
NHPC STNS	0.00	0.00	0.00	0.00	0.00	0.00	17.41	69.95	-52.54	-52.54
NFF	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.11	-0.02	-0.02
RAIL	0.00	0.00	0.00	0.00	0.00	0.00	21.40	0.11	21.29	21.29
NEP	0.00	37.51	37.51	0.00	0.00	0.00	1.60	1.09	0.51	38.02
NAPP	0.00	0.00	0.00	0.00	0.00	0.00	2.99	1.23	1.76	1.76
RAP B	0.00	0.00	0.00	0.00	0.00	0.00	0.65	1.54	-0.89	-0.89
NJPC	0.00	0.00	0.00	0.00	0.00	0.00	1.74	5.49	-3.75	-3.75
TEHRI	0.00	0.00	0.00	0.00	0.00	0.00	2.88	3.92	-1.04	-1.04
BBMB	0.00	0.00	0.00	0.00	0.00	0.00	5.07	12.15	-7.08	-7.08
RAP C	0.00	0.00	0.00	0.00	0.00	0.00	0.23	3.97	-3.75	-3.75
AD HYDRO	0.00	0.00	0.00	14.69	0.00	-14.69	0.38	0.62	-0.24	-14.93
IGSTPS	0.00	0.00	0.00	0.00	0.00	0.00	6.89	1.36	5.53	5.53
KOTESHWAR	0.00	0.00	0.00	0.00	0.00	0.00	1.37	1.99	-0.62	-0.62
KARCHAM WANGTO	0.00	0.00	0.00	14.40	0.00	-14.40	2.43	3.56	-1.14	-15.54
SHREE CEMENT	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.37	-0.06	-0.06
LANCO BUDHIL	0.00	0.00	0.00	0.52	0.00	-0.52	0.23	0.13	0.09	-0.43
RAMPUR HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.24	3.67	-3.44	-3.44
SAINJ HEP	0.00	0.00	0.00	8.62	0.00	-8.62	0.34	1.24	-0.91	-9.53
RENEW_SLR	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.31	0.35	0.35
AZURE_SLR	0.00	0.00	0.00	0.00	0.00	0.00	1.37	2.24	-0.87	-0.87
SB_SLR	0.00	0.00	0.00	0.00	0.00	0.00	1.67	1.47	0.20	0.20
ACME_SLR	0.00	0.00	0.00	0.00	0.00	0.00	1.53	2.09	-0.56	-0.56
AZURE34_SLR	0.00	0.00	0.00	0.00	0.00	0.00	0.81	1.74	-0.93	-0.93

FRV_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.56	0.48	0.48
NTPC_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	5.14	3.09	2.05	2.05
GIWEL_TCN	0.00	0.00	0.00	0.00	0.00	0.00	9.34	8.97	0.37	0.37
MYTRAH_TCN	0.00	0.00	0.00	0.00	0.00	0.00	8.93	3.94	4.99	4.99
FRV_NPK	0.00	0.00	0.00	0.00	0.00	0.00	0.83	0.90	-0.07	-0.07
ORANGE_TCN	0.00	0.00	0.00	0.00	0.00	0.00	6.81	7.76	-0.95	-0.95
BETAM_TCN	0.00	0.00	0.00	0.00	0.00	0.00	5.10	5.19	-0.09	-0.09
SBG_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	2.19	2.85	-0.66	-0.66
SBG_NPK	0.00	0.00	0.00	0.00	0.00	0.00	3.30	3.51	-0.21	-0.21
FORTUM1_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	1.52	1.22	0.30	0.30
PARAM_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	2.08	3.26	-1.17	-1.17
YARROW_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.74	1.16	-0.42	-0.42
TATA_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	4.36	7.24	-2.88	-2.88
RENEW_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.72	-0.02	-0.02
AKS_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.70	0.02	0.02
ARS_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.61	0.06	0.06
AVAADA1_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	2.54	2.98	-0.44	-0.44
ADY1_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.93	-0.15	-0.15
ADY2_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.74	1.07	-0.34	-0.34
ADY13_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0.98	-0.29	-0.29
ADY3_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.59	1.11	-0.52	-0.52
ADY6_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.59	1.16	-0.57	-0.57
ADY10_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.86	-0.13	-0.13
AZURE_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	1.31	2.13	-0.82	-0.82
FORTUM2_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	3.31	4.04	-0.74	-0.74
AVAADA2_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	1.62	3.15	-1.52	-1.52
KREDL_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.41	1.22	-0.81	-0.81
AYANA_NPKUNTA	0.00	0.00	0.00	0.00	0.00	0.00	1.81	0.22	1.58	1.58
SPRNG_NPKUNTA	0.00	0.00	0.00	0.00	0.00	0.00	0.47	1.43	-0.96	-0.96
NTPC STNS-ER	0.05	0.00	-0.05	18.53	0.00	-18.53	60.99	35.76	25.23	6.65
MAITHON POWER L	0.00	0.00	0.00	0.00	0.00	0.00	4.70	5.77	-1.07	-1.07
NPGC	0.00	0.00	0.00	0.00	0.00	0.00	5.23	2.49	2.74	2.74
ADHUNIK POWER L	118.36	0.00	-118.36	10.17	0.00	-10.17	2.92	3.20	-0.28	-128.82
CHUZACHEN HEP	9.80	0.00	-9.80	1.59	0.00	-1.59	0.30	0.60	-0.30	-11.69
RANGIT HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.99	-0.11	-0.11
GMR KAMALANGA	0.00	0.00	0.00	55.75	0.00	-55.75	1.06	4.03	-2.97	-58.72
JITPL	65.86	0.00	-65.86	2.35	0.00	-2.35	1.93	1.16	0.77	-67.43
TEESTA HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.37	5.15	-4.79	-4.79
DAGACHU	27.84	0.00	-27.84	0.00	0.00	0.00	6.23	0.00	6.23	-21.61
JORETHANG	15.39	0.00	-15.39	2.18	0.00	-2.18	2.73	0.40	2.33	-15.24
NEPAL(NVVN)	0.00	148.77	148.77	0.00	0.00	0.00	14.32	1.51	12.81	161.58
BANGLADESH	0.00	9.66	9.66	0.00	0.00	0.00	7.11	8.11	-1.00	8.67
HVDC PUS	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.14	0.14
TEESTA STG3	0.00	0.00	0.00	168.01	0.00	-168.01	6.61	1.55	5.07	-162.94
DIKCHU HEP	0.00	0.00	0.00	10.19	0.00	-10.19	0.70	0.83	-0.13	-10.32
HVDC ALPD	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.17	-0.12	-0.12
TASHIDENG HEP	11.93	0.00	-11.93	1.63	0.00	-1.63	1.67	0.56	1.11	-12.45
BRBCL,NABINAGAR	0.00	0.00	0.00	0.74	0.00	-0.74	4.30	1.91	2.38	1.65
MTPS II	0.00	0.00	0.00	0.00	0.00	0.00	3.54	0.95	2.60	2.60
TALA HEP	0.00	0.00	0.00	0.00	0.00	0.00	96.61	0.00	96.61	96.61
CHUKHA HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64.33	-64.33	-64.33
KURICHU HEP	0.00	0.00	0.00	0.00	0.00	0.00	23.28	0.00	23.28	23.28
MANGDECHU HEP	0.00	0.00	0.00	0.00	0.00	0.00	3.16	3.10	0.06	0.06
NTPC STNS-NER	0.65	0.00	-0.65	6.76	0.00	-6.76	3.90	1.66	2.24	-5.17
NEEPCO STNS	50.84	0.00	-50.84	21.58	0.00	-21.58	0.98	6.28	-5.30	-77.72
RANGANADI HEP	0.00	0.00	0.00	0.00	0.00	0.00	1.44	1.22	0.22	0.22
DOYANG HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.43	-0.19	-0.19
ONGC PALATANA	53.59	0.00	-53.59	0.89	0.00	-0.89	0.97	0.86	0.11	-54.37
LOKTAK	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.22	0.00	0.00
PARE HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.48	-0.38	-0.38
<i>Source: NLDC</i>										
<i>* 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.</i>										
<i>** (-) indicates sale and (+) indicates purchase.</i>										
<i>*** Total net includes net of transactions through bilateral, power exchange and DSM</i>										