

Monthly Report on Short-term Transactions of Electricity in India

July 2021



Economics Division
Central Electricity Regulatory Commission
36, Janpath, Chanderlok Building



Contents

S.No.	Contents	Page No
	Contents	i
	List of Tables and Figures	ii
	Abbreviations	iii
1	Introduction	1
2	Volume of Short-term Transactions of Electricity	1
3	Price of Short-term Transactions of Electricity	3
3.1	<i>Price of electricity transacted through Traders</i>	3
3.2	<i>Price of electricity transacted through Power Exchanges</i>	3
3.3	<i>Price of electricity transacted through DSM</i>	3
4	Trading Margin	3
5	Volume of Short-term Transactions of Electricity (Regional Entity-wise)	4
6	Congestion on Inter-State Transmission Corridor for Day-Ahead Market and Real Time Market on Power Exchanges	5
7	Volume and Price of Renewable Energy Certificates (RECs)	6
8	Inferences	6

S.No.	List of Tables and Figures	Page No.
I	List of Tables	
Table-1	Volume of Short-term Transactions of Electricity in India	8
Table-2	Percentage Share of Electricity Transacted by Trading Licensees	10
Table-3	Price of Electricity Transacted through Traders	11
Table-4	Price of Electricity Transacted through Traders (Time-wise)	11
Table-5	Price of Electricity Transacted in Day Ahead Market through Power Exchanges	11
Table-6	Price of Electricity Transacted in Real Time Market through Power Exchanges	11
Table-7	Volume and Price of Electricity in Term Ahead Market of IEX	12
Table-8	Volume and Price of Electricity in Term Ahead Market of PXIL	12
Table-9	Volume and Price of Electricity in Green Term Ahead Market of IEX	12
Table-10	Volume and Price of Electricity in Green Term Ahead Market of PXIL	12
Table-11	Price of Electricity Transacted through DSM	12
Table-12	Volume of Electricity Sold through Bilateral	14
Table-13	Volume of Electricity Purchased through Bilateral	16
Table-14	Volume of Electricity Sold in Day Ahead Market through Power Exchanges	17
Table-15	Volume of Electricity Purchased in Day Ahead Market through Power Exchanges	19
Table-16	Volume of Electricity Sold in Real Time Market through Power Exchanges	20
Table-17	Volume of Electricity Purchased in Real Time Market through Power Exchanges	22
Table-18	Volume of Electricity Under drawal through DSM	23
Table-19	Volume of Electricity Over drawal through DSM	26
Table-20	Total Volume of Net Short-term Transactions of Electricity (Regional Entity-wise)	29
Table-21	Details of Congestion in Power Exchanges	32
Table-22	Volume of Short-term Transactions of Electricity in India (Day-wise)	33
Table-23	Price of Electricity in Day Ahead Market and DSM (Day-wise)	34
Table-24	Price of Electricity in Real Time Market (Day-wise)	35
Table-25	Volume of Short-term Transactions of Electricity (Regional Entity-wise)	36
II	List of Figures	
Figure-1	Volume of Various Kinds of Electricity Transactions in Total Electricity Generation	8
Figure-2	Volume of Short-term Transactions of Electricity	8
Figure-3	Volume transacted in different markets segments on Power Exchanges	9
Figure-4	Volume of Short-term Transactions of Electricity (Day-wise)	9
Figure-5	Percentage Share of Electricity Transacted by Trading Licensees	10
Figure-6	Price of Short-term Transactions Electricity	13
Figure-7	Price of Short-term Transactions Electricity (Day-wise)	13

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	SolenergiRewaUltraMega 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
AZURE43_SLR	Azure Power Forty Three Private Limited
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	DoyangHydro 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	FortumFinnsurya Energy Private Ltd, Pavagada Project 1
FORTUM2_PVGD	FortumFinnsurya 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	GMRKamalanga Energy Ltd.
G-TAM	Green Term Ahead Market
HVDC ALPD	AlipurduarHigh Voltage Direct Current Link
HVDC CHAMPA	Champa-Kurukshetra High Voltage Direct Current Link
HVDC PUS	PasauliHigh Voltage Direct Current Link
HVDC RAIGARH	Raigarh-PugalurHigh 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	JaypeeNigrie 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	KarchamWangtoo H.E. Project
KORBA WEST POWER	Korba West Power Company Limited
KOTESHWAR	Koteshwar Hydro Power project
KREDL_PVGD	Karnataka Renewable Energy DevelopmentLtd,Pavagada
KSK MAHANADI	KSK Mahanadi Power Ltd
KSMPL_SLR	Kilaj Solar (Maharashtra) Private Limited
KURICHU HEP	Kurichhu Hydro-electric Power Station, Bhutan
LANKO_AMK	LancoAmarkantak Power Private Limited
LANKO BUDHIL	LancoBudhil Hydro Power Private Limited
LANKOKONDAPALLY	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
MRPL	Mahindra Renewables Private Limited
MTPS II	Muzaffarpur Thermal Power Station – Stage II
MYTRAH_TCN	Mytrah Energy (India) Private Limited, Tuticorin
MU	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	NathpaJhakri 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
NTECLVallur	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
RONGNICHU HEP	Rongnichu Hydro Electric Power Project

RPREL	Raipur Energen Limited
RTC	Round The Clock
RTM	Real Time Market
SasanUMPP	Sasan Ultra Mega Power Project
SB_SLR	Soft Bank Solar
SB6_POKARAN	SB Energy SixPrivate Limited, Pokaran
SBG CLEANTECH_SLR	SBG Cleantech Ltd
SBG_NPK	SB Energy Solar Private Limited,NP Kunta
SBG_PVGD	SB Energy Solar Private Limited,Pavagada
SEMBCORP	SembcorpGayatri 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
SPRING_PUGALUR	Spring Solar Power Private Limited, Pugalur
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. The monthly report on short-term transactions of electricity, published by CERC since 2008 as part of its market monitoring process, provides a snapshot of key aspects of short-term transactions of electricity in India. 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 main objectives of the report are: (i) to analyze the volume and price of the short-term transactions of electricity; (ii) to assess the competition among the market players; (iii) to analyze the 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 disseminate all other relevant market information. The analysis of short-term transactions of electricity during the month of **July 2021** is presented in the following sections.

2. Volume of Short-term Transactions of Electricity

2.1. During July 2021, total electricity generation, excluding generation from renewable and captive power plants in India was 115654.66MU (Table-1). Of the total electricity generation, 14.72% was transacted through short-term, comprising of 7.67% through bilateral (through traders and term-ahead contracts on power exchanges and directly between distribution companies), followed by 5.05% through Day Ahead Market (DAM) and Real Time Market (RTM) of power exchanges and 2.00% through DSM (Table-1 & Figure-1).

2.2. Of the total short-term transactions (17030.14MU), bilateral constitutes 52.12% (39.04% through traders and term-ahead contracts on power exchanges, and 13.08% directly between distribution companies), followed by 34.27% through DAM and RTM of power exchanges and 13.61% through DSM (Table-1 & Figure-2). Daily volume of short-term transactions is shown in Table-22 & Figure-4.

2.3. Of the total volume of electricity transacted through power exchanges, 55.60% of the volume was transacted in DAM, followed by 23.47% in Term Ahead Market (TAM) (including G-TAM) and 20.93% in RTM (Figure-3).

2.4. The share of electricity traded by each trading licensee is given 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 36 trading licensees as on July2021. Of which, 26 trading licensees were engaged in short-term trading. The top 5 trading licensees, namely PTC India Ltd., Tata Power Trading Company (P) Ltd., Manikaran Power Ltd., NTPC Vidyut Vyapar Nigam Ltd.and Adani Enterprises Ltd. had a share of 84.18% in the total volume of electricity traded by all the licensees.

2.5. Herfindahl-Hirschman Index (HHI), a commonlyaccepted measure to calculate market concentration, 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 0.2501 for the month of July2021, which indicates towards high concentration of market power (Table-2).

2.6. The volume of electricity transacted in the DAM of IEX and PXIL was 4238.25MU and 2.76MU respectively.The volume of total buy bids and sell bids was 5212.61MU and 9281.58MU respectively in IEX, while the same was 32.38MU and 161.42MU respectively in PXIL.

2.7. The volume of electricity transacted in the RTM of IEX was 1596.00MU, while no electricity was transacted in the RTM of PXIL. The volume of total buy bids and sell bids was 2045.73MU and 4160.74MU 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 761.26MU and 332.72MU respectively (Table-7& Table-8). The volume of electricity transacted in the Green Term Ahead Market (G-TAM) of IEX and PXIL was 679.42MU and 16.77MU respectively (Table-9 & Table-10).

3. Price of Short-term Transactions of Electricity

3.1. **Price of electricity transacted through Traders:** The minimum, maximum and weighted average sale prices for the electricity transacted through traders were ₹1.91/kWh, ₹5.52/kWh and ₹3.32/kWh respectively (Table-3). The weighted average sale prices were also computed for the electricity transacted during Round the Clock (RTC), Peak and Off-peak periods separately, and the sale prices were ₹3.27/kWh, ₹4.61/kWh and ₹3.86/kWh respectively (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 ₹1.00/kWh, ₹10.90/kWh and ₹3.11/kWh respectively. These prices in the DAM of PXIL were ₹2.32/kWh, ₹6.99/kWh and ₹3.22/kWh respectively (Table-5). The minimum, maximum and weighted average prices for the electricity transacted in the RTM of IEX were ₹0.20/kWh, ₹16.85/kWh and ₹2.84/kWh respectively (Table-6). The weighted average price of electricity transacted in the TAM of IEX and PXIL was ₹3.29/kWh and ₹3.48/kWh respectively (Table-7 and Table-8). The price of electricity transacted in the G-TAM of IEX and PXIL was ₹3.87/kWh and ₹3.91/kWh respectively (Table-9 and Table-10).

3.3. **Price of electricity transacted through DSM:** The minimum, maximum and average price of DSM was ₹0.00/kWh, ₹8.00/kWh and ₹2.73/kWh respectively (Table-11).

3.4. The prices of electricity transacted through trading licensees, power exchanges and DSM and their comparison are shown in Table-23 & 24 and 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 ₹0.020/kWh.

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

5.1. Of the total bilateral transactions, top 5 regional entities sold 42.75% of the volume. These were Raipur Energen Limited, Madhya Pradesh, Himachal Pradesh, Karnataka and Teesta Stage 3 Hydro Power Project (Table-12). Top 5 regional entities purchased 71.07% of the volume, and these were Punjab, Haryana, Delhi, Uttar Pradesh and Odisha (Table-13).

5.2. Of the total DAM transactions of power exchanges, top 5 regional entities sold 34.19% of the volume, and these were Himachal Pradesh, Karnataka, Sembcorp Gayatri Power Ltd., Odisha and Uttar Pradesh (Table-14). Top 5 regional entities purchased 61.72% of the volume, and these were Gujarat, Maharashtra, Punjab, Haryana and Tamil Nadu (Table-15).

5.3. Of the total RTM transactions of power exchanges, top 5 regional entities sold 49.83% of the volume, and these were Jammu & Kashmir, Neyveli Lignite Corporation Limited, Karnataka, Odisha and Telangana (Table-16). Top 5 regional entities purchased 58.94% of the volume, and these were Telangana, Haryana, Uttar Pradesh, Rajasthan and West Bengal (Table-17).

5.4. Of the total DSM transactions, top 5 regional entities under drew 26.64% of the volume, and these were Punjab, NHPC Stations, Uttar Pradesh, Maharashtra and Gujarat (Table-18). Top 5 regional entities overdrew 23.86% of the volume, and these were NTPC Stations (Western Region), Rajasthan, Tala Hydroelectric Project Bhutan, NTPC Stations (Northern Region) and Kerala (Table-19).

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 are shown in Table-20 & 25. Top 5 electricity selling regional entities were Himachal Pradesh, Karnataka, Raipur Energen Limited, Teesta Stage 3 Hydro Power Project and Jammu & Kashmir. Top 5 electricity purchasing regional entities were Punjab, Haryana, Gujarat, Delhi and Maharashtra.

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. 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. 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. During the month of July 2021, congestion was experienced in DAM as well as RTM on IEX (Table-21).

6.3. In case of DAM on IEX, for a few days in July 2021, there was constraint in Import Margin for N3 area. But since only block buy bids were there and no sell bid, therefore power was required to be imported from outside the bid area. With partial execution of a block bid not being possible, some bids got rejected in entirety leading to difference between unconstrained cleared volume and actual cleared volume. But here the condition of market splitting did not occur and hence no congestion got reflected. The volume of electricity that could not be cleared, in DAM on IEX, was 0.21% of the unconstrained cleared volume.

6.4. The volume of electricity that could not be cleared, due to congestion, in RTM on IEX, was 1.62% of the unconstrained cleared volume. In terms of time, congestion occurred was 37.20% during the month (Table-21).

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 Exchanges, 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.

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 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 during the month of July 2021 as the scheduled trading was postponed by Hon'ble APTEL in matter of the CERC Order dated 17th June 2020, 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 14.72%.
- (2) Of the total short-term transactions, bilateral constitutes 52.12% (39.04% through traders and term-ahead contracts on power exchanges and 13.08% directly between distribution companies), followed by 34.27% through DAM and RTM of power exchanges and 13.61% through DSM
- (3) Of the total volume of electricity transacted through power exchanges, 55.60% of the volume was transacted in DAM, followed by 23.47% in Term Ahead Market (TAM) (including G-TAM) and 20.93% in RTM.
- (4) Top 5 trading licensees had a share of 84.18% 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 0.2501, indicating high concentration of market power.

- (6) The weighted average price of electricity transacted through trading licensees was ₹3.32/kWh.
- (7) The weighted average price of electricity transacted in the TAM of IEX and PXIL was ₹3.29/kWh and ₹3.48/kWh respectively. The weighted average price of electricity transacted in the G-TAM of IEX and PXIL was ₹3.87/kWh and ₹3.91/kWh respectively.
- (8) The weighted average price of electricity transacted in DAM of IEX and PXIL was ₹3.11/kWh and ₹3.22/kWh. The weighted average price of electricity transacted in RTM of IEX was ₹2.84/kWh. No electricity was transacted in the RTM of PXIL.
- (9) The average price of electricity transacted through DSM was ₹2.73/kWh.
- (10) The weighted average trading margin charged by the trading licensees for bilateral transactions was ₹0.020/kWh. The trading margin charged during the month was in line with the Trading Licence Regulations 2020.
- (11) Top 5 electricity selling regional entities were Himachal Pradesh, Karnataka, Raipur Energen Limited, Teesta Stage 3 Hydro Power Project and Jammu & Kashmir. Top 5 electricity purchasing regional entities were Punjab, Haryana, Gujarat, Delhi and Maharashtra.
- (12) During the month, congestion was experienced in DAM and RTM on IEX. The volume of electricity that could not be cleared due to reasons additional to constraint, in DAM on IEX, was 0.21% of the unconstrained cleared volume. The volume of electricity that could not be cleared due to congestion, in RTM on IEX was 1.62% of the unconstrained cleared volume. In terms of time, congestion occurred was 37.20% during the month.
- (13) There were no transactions of REC on both the power exchanges during the month, as the scheduled REC trading sessions were postponed by the order of Hon'ble APTEL.

Table-1: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (ALL INDIA), JULY 2021				
Sr.No	Short-term transactions	Volume (MU)	% to Volume of short-term transactions	% to Total Generation
1	Bilateral	8875.68	52.12	7.67
	(i) Through Traders and PXs	6648.16	39.04	5.75
	(ii) Direct	2227.52	13.08	1.93
2	Through Power Exchanges	5837.01	34.27	5.05
	(i) IEX			
	(a) DAM	4238.25	24.89	3.66
	(b) RTM	1596.00	9.37	1.38
	(ii)PXIL			
	(a) DAM	2.76	0.02	0.002
	(b) RTM	0.00	0.00	0.00
3	Through DSM	2317.46	13.61	2.00
	Total	17030.14	-	14.72
	Total Generation	115654.66	-	-

Source: NLDC

Figure-1: Volume of Various Kinds of Electricity Transactions in Total Electricity Generation, July 2021

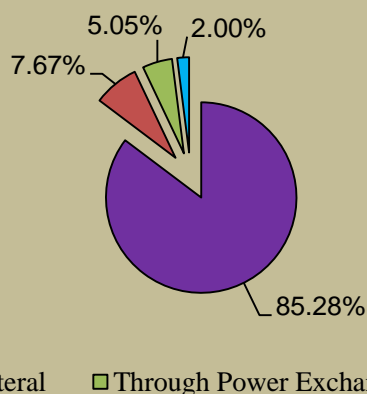


Figure-2: Volume of Short-term Transactions of Electricity, July 2021

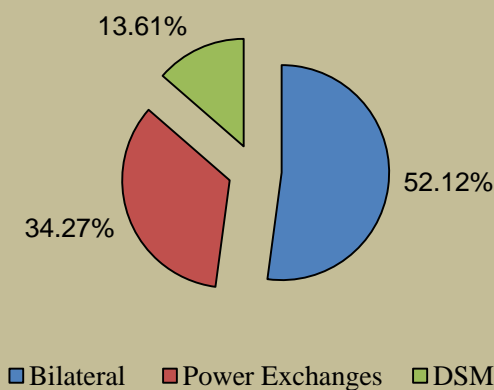


Figure-3: Volume transacted in different markets segments on Power Exchanges, July 2021

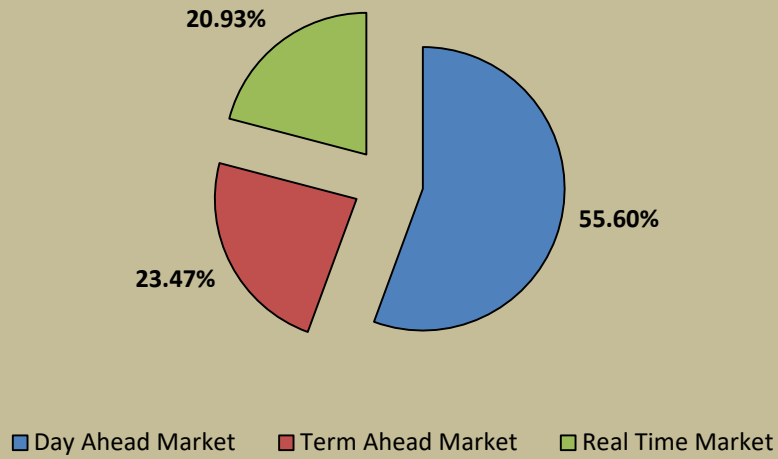


Figure-4: Volume of Short-term Transactions of Electricity, July 2021 (Day-wise)

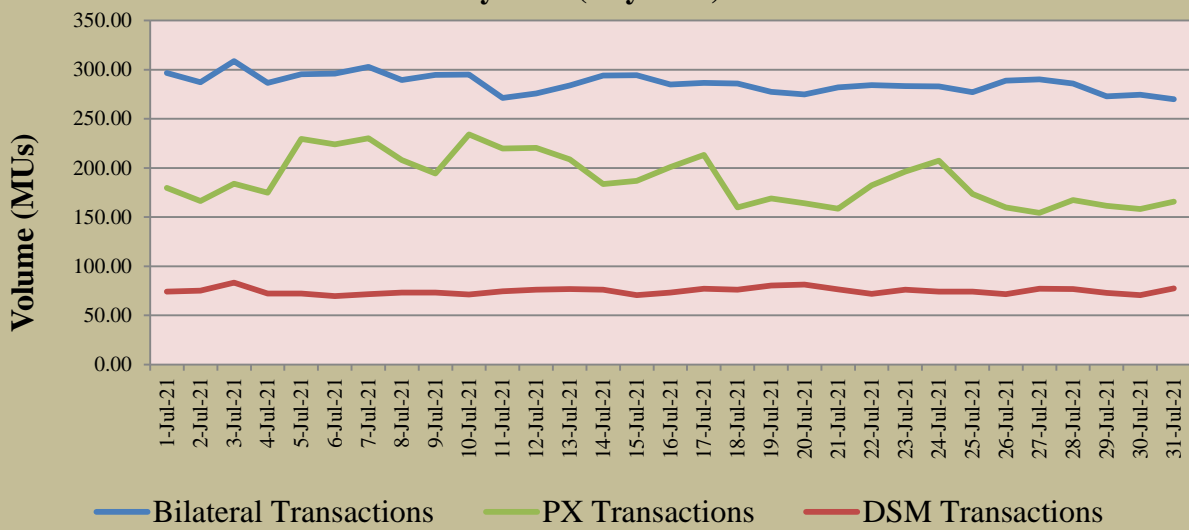


Table-2: PERCENTAGE SHARE OF ELECTRICITY TRANSACTED BY TRADING LICENSEES, JULY 2021

Sr.No	Name of the Trading Licensee	% Share in total Volume transacted by Trading Licensees	Herfindahl-Hirschman Index
1	PTC India Ltd.	45.20	0.2043
2	Tata Power Trading Company (P) Ltd.	14.06	0.0198
3	Manikaran Power Ltd.	10.12	0.0102
4	NTPC Vidyut Vyapar Nigam Ltd.	9.70	0.0094
5	Adani Enterprises Ltd.	5.11	0.0026
6	Kreate Energy (I) Pvt. Ltd.	3.54	0.0013
7	GMR Energy Trading Ltd.	3.37	0.0011
8	Arunachal Pradesh Power Corporation (P) ltd	2.98	0.0009
9	Essar Electric Power Development Corp. Ltd.	1.80	0.0003
10	National Energy Trading & Services Ltd.	0.63	0.0000
11	Instinct Infra & Power Ltd.	0.47	0.0000
12	Statkraft Markets Pvt. Ltd.	0.43	0.0000
13	RPG Power Trading Company Ltd.	0.42	0.0000
14	JSW Power Trading Company Ltd	0.41	0.0000
15	Greenko Energies Pvt Ltd	0.39	0.0000
16	Knowledge Infrastructure Systems (P) Ltd	0.34	0.0000
17	NHPC Limited	0.32	0.0000
18	Abja Power Private Limited	0.23	0.0000
19	Refex Energy Limited	0.13	0.0000
20	IPCL Power Trading Pvt. Ltd.	0.11	0.0000
21	Gita Power & Infrastructure Private Limited	0.08	0.0000
22	NLC India Ltd.	0.06	0.0000
23	Customized Energy Solutions India (P) Ltd.	0.04	0.0000
24	Shree Cement Ltd.	0.04	0.0000
25	Phillip Commodities India (P) Ltd.	0.02	0.0000
26	Ambitious Power Trading Company Ltd.	0.01	0.0000
TOTAL		100.00%	0.2501
Top 5 trading licensees		84.18%	
<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, July 2021

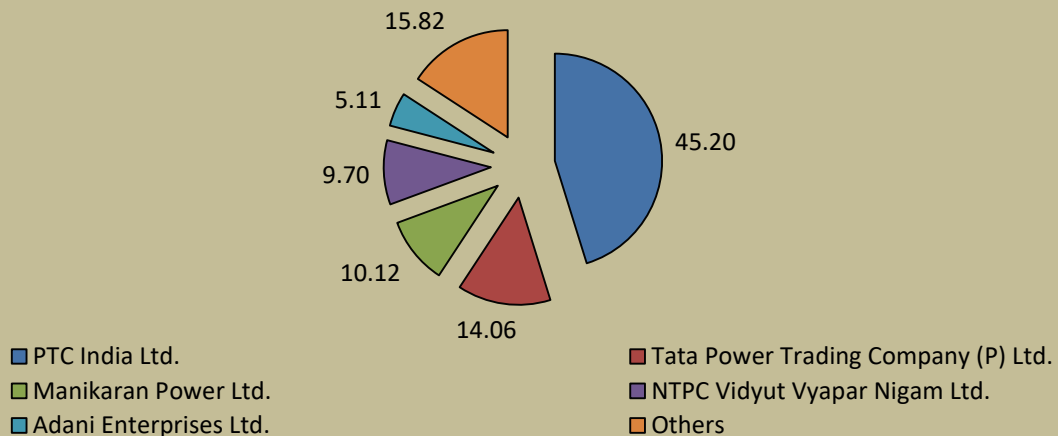


Table-3: PRICE OF ELECTRICITY TRANSACTED THROUGH TRADERS, JULY 2021

Sr.No	Item	Sale Price of Traders (₹/kWh)
1	Minimum	1.91
2	Maximum	5.52
3	Weighted Average	3.32

Source: Information submitted by trading licensees

Table-4: PRICE OF ELECTRICITY TRANSACTED THROUGH TRADERS (TIME-WISE), JULY 2021

Sr.No	Period of Trade	Sale Price of Traders (₹/kWh)
1	RTC	3.27
2	PEAK	4.61
3	OFF PEAK	3.86

Source: Information submitted by trading licensees

Table-5: PRICE OF ELECTRICITY TRANSACTED IN DAY AHEAD MARKET THROUGH POWER EXCHANGES, JULY 2021

Sr.No	ACP	Price in IEX (₹/kWh)	Price in PXIL (₹/kWh)
1	Minimum	1.00	2.32
2	Maximum	10.90	6.99
3	Weighted Average	3.11	3.22

Source: IEX and PXIL

Table-6: PRICE OF ELECTRICITY TRANSACTED IN REAL TIME MARKET THROUGH POWER EXCHANGES, JULY 2021

Sr.No	ACP	Price in IEX (₹/kWh)	Price in PXIL (₹/kWh)
1	Minimum	0.20	-
2	Maximum	16.85	-
3	Weighted Average	2.84	-

Source: IEX and PXIL

Table-7: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF IEX, JULY 2021			
Sr.No	Term ahead contracts	Actual Scheduled Volume (MU)	Weighted Average Price (₹/kWh)
1	Intra-Day Contracts	12.88	6.57
2	Day Ahead Contingency Contracts	263.75	3.28
3	Daily Contracts	484.63	3.22
	Total	761.26	3.29

Source: IEX

Table-8: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF PXIL, JULY 2021			
Sr.No	Term ahead contracts	Actual Scheduled Volume (MU)	Weighted Average Price (₹/kWh)
1	Intra-Day Contracts	119.10	3.51
2	Any Day(s) Contracts	213.62	3.46
	Total	332.72	3.48

Source: PXIL

Table-9: VOLUME AND PRICE OF ELECTRICITY IN GREEN TERM AHEAD MARKET OF IEX, JULY 2021			
Sr.No	Green Term ahead contracts	Actual Scheduled Volume (MU)	Weighted Average Price (₹/kWh)
1	Intra-Day Contracts	8.92	4.50
2	Day Ahead Contingency Contracts	445.84	3.78
3	Daily Contracts	207.83	4.02
4	Weekly Contracts	16.84	4.00
	Total	679.42	3.87

Source: IEX

Table-10: VOLUME AND PRICE OF ELECTRICITY IN GREEN TERM AHEAD MARKET OF PXIL, JULY 2021			
Sr.No	Green Term ahead contracts	Actual Scheduled Volume (MU)	Weighted Average Price (₹/kWh)
1	Any Day(s) Contracts	16.77	3.91
	Total	16.77	3.91

Source: PXIL

Table-11: PRICE OF ELECTRICITY TRANSACTED THROUGH DSM, JULY 2021		
Sr.No	Item	Price in All India Grid (₹/kWh)
1	Minimum	0.00
2	Maximum	8.00
3	Average	2.73

Source: NLDC

Figure-6: Price of Short-term Transactions of Electricity, July 2021

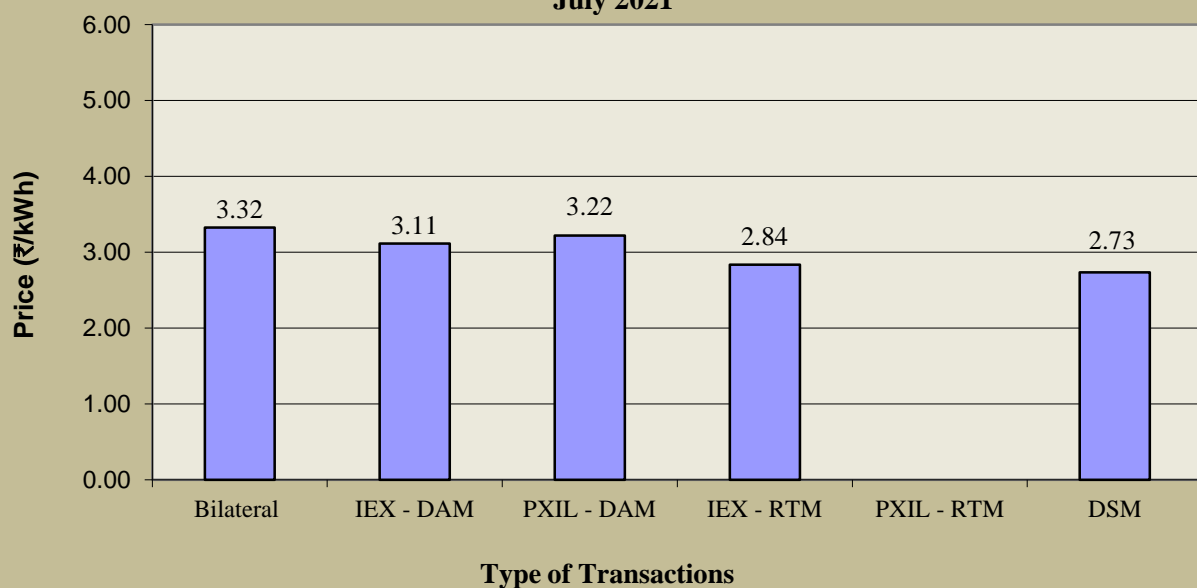
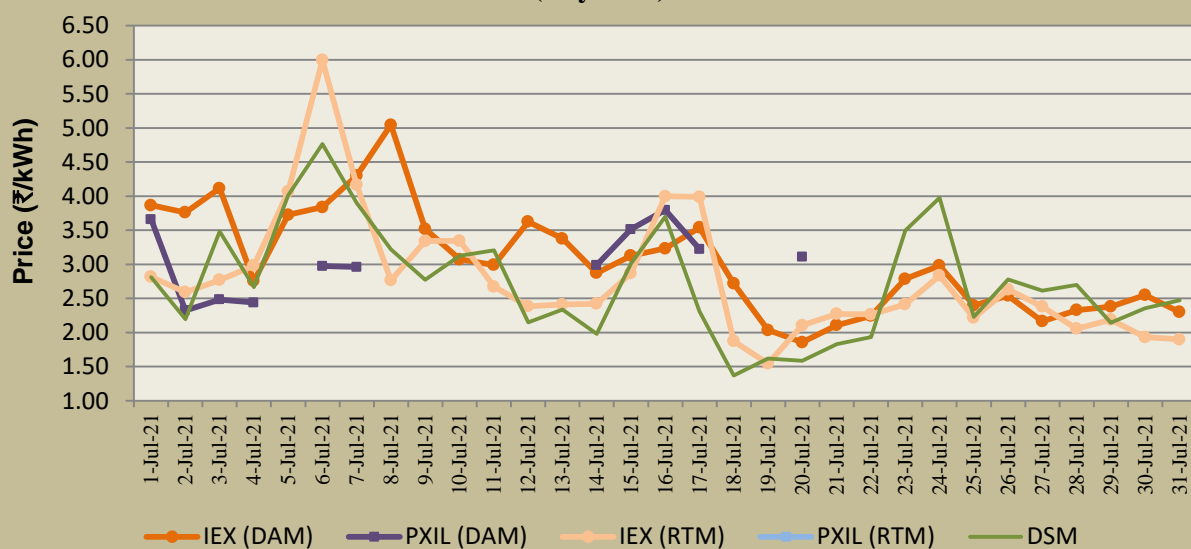


Figure-7: Price of Short-term Transactions of Electricity, July 2021 (Day-wise)



Note: On PXIL, electricity was transacted in DAM on 1st – 4th, 6th -7th, 14th – 17th, 20th July 2021 while no electricity was transacted in RTM during July 2021

Table-12: VOLUME OF ELECTRICITY SOLD THROUGH BILATERAL, JULY 2021		
Name of the Entity	Volume of Sale (MU)	% of Volume
RPREL	834.17	9.40
MP	822.74	9.27
HIMACHAL PRADESH	814.95	9.18
KARNATAKA	735.38	8.29
TEESTA STG3	586.70	6.61
JITPL	448.66	5.06
DB POWER	381.53	4.30
TAMIL NADU	374.62	4.22
REGL	353.81	3.99
JAYPEE NIGRIE	306.25	3.45
RKM POWER	270.61	3.05
SEMBCORP	268.27	3.02
J & K	268.19	3.02
JINDAL POWER	226.17	2.55
DVC	222.84	2.51
UTTARAKHAND	208.46	2.35
RAJASTHAN	158.20	1.78
SKS POWER	149.78	1.69
ADHUNIK POWER LTD	138.75	1.56
MB POWER	119.83	1.35
AD HYDRO	94.99	1.07
TELANGANA	93.64	1.05
DAGACHU	91.87	1.04
ESSAR POWER	90.84	1.02
SIKKIM	77.19	0.87
MEENAKSHI	71.35	0.80
GUJARAT	66.75	0.75
WEST BENGAL	49.78	0.56
DIKCHU HEP	47.27	0.53
ARERJL_SLR	46.61	0.53
JINDAL STAGE-II	46.38	0.52
KSK MAHANADI	42.98	0.48
KERALA	41.79	0.47
JHABUA POWER_MP	36.08	0.41
MRPL	35.28	0.40
ANDHRA PRADESH	31.72	0.36
GOA	28.98	0.33
MEGHALAYA	24.75	0.28
ODISHA	22.33	0.25
BALCO	21.23	0.24
MANIPUR	20.66	0.23
KARCHAM WANGTOO	17.93	0.20
ASEJTL_SLR	11.78	0.13
TASHIDENG HEP	9.72	0.11
LANKO_AMK	9.26	0.10
JORETHANG	8.82	0.10
ONGC PALATANA	7.81	0.09
SAINJ HEP	7.75	0.09
MAHARASHTRA	6.65	0.07

TATA_SLR	6.35	0.07
CHHATTISGARH	4.59	0.05
THERMAL POWERTECH	3.54	0.04
RONGNICHU HEP	2.69	0.03
HARYANA	1.65	0.02
UTTAR PRADESH	1.50	0.02
ARUNACHAL PRADESH	1.49	0.02
NAGALAND	1.30	0.01
NTPC STATIONS-NER	0.44	0.005
Total	8875.63	100.00
Volume Sold by top 5 Regional Entities	3793.94	42.75

Table-13: VOLUME OF ELECTRICITY PURCHASED THROUGH BILATERAL, JULY 2021

Name of the Entity	Volume of Purchase (MU)	% of Volume
PUNJAB	2165.45	24.40
HARYANA	1845.60	20.79
DELHI	1290.10	14.54
UTTAR PRADESH	504.38	5.68
ODISHA	502.78	5.66
GUJARAT	498.93	5.62
WEST BENGAL	295.79	3.33
BIHAR	249.76	2.81
MAHARASHTRA	199.11	2.24
MP	193.74	2.18
RAJASTHAN	173.23	1.95
AMPS Hazira	135.90	1.53
TELANGANA	133.23	1.50
JHARKHAND	131.49	1.48
CHHATTISGARH	130.13	1.47
TAMIL NADU	115.90	1.31
BANGLADESH	71.35	0.80
DADRA & NAGAR HAVELI	62.74	0.71
SIKKIM	57.14	0.64
GOA	45.88	0.52
NEP	23.39	0.26
ANDHRA PRADESH	12.76	0.14
UTTARAKHAND	10.56	0.12
KARNATAKA	8.04	0.09
DAMAN AND DIU	6.34	0.07
DVC	6.31	0.07
ASSAM	5.63	0.06
TOTAL	8875.68	100.00
Volume Purchased by top 5 Regional Entities	6308.32	71.07

Table-14: VOLUME OF ELECTRICITY SOLD IN DAY AHEAD MARKET THROUGH POWER EXCHANGES, JULY 2021

Name of the Entity	Volume of Sale (MU)	% of Volume
HIMACHAL PRADESH	407.13	9.60
KARNATAKA	352.61	8.31
SEMBCORP	263.81	6.22
ODISHA	245.73	5.79
UTTAR PRADESH	180.88	4.27
J & K	179.57	4.23
NEEPCO STATIONS	162.29	3.83
TELANGANA	146.69	3.46
KERALA	139.76	3.30
ESSAR POWER	138.66	3.27
TEESTA STG3	138.35	3.26
JINDAL POWER	124.89	2.94
WEST BENGAL	121.90	2.87
CHHATTISGARH	104.47	2.46
DELHI	97.86	2.31
MB POWER	75.91	1.79
RAJASTHAN	69.74	1.64
MAHARASHTRA	69.25	1.63
SAINJ HEP	68.95	1.63
SINGOLI BHATWARI HEP	65.37	1.54
JORETHANG	65.01	1.53
TASHIDENG HEP	63.50	1.50
MP	62.90	1.48
NTPC STATIONS-SR	56.64	1.34
RKM POWER	56.20	1.33
KARCHAM WANGTOO	54.02	1.27
ASSAM	51.02	1.20
JAYPEE NIGRIE	49.26	1.16
AD HYDRO	46.34	1.09
BIHAR	43.09	1.02
JINDAL STAGE-II	37.23	0.88
MARUTI COAL	36.91	0.87
EMCO	36.73	0.87
JITPL	34.79	0.82
DIKCHU HEP	27.71	0.65
GUJARAT	27.08	0.64
GOA	26.64	0.63
MEGHALAYA	25.24	0.60
GMR KAMALANGA	25.22	0.59
CHANDIGARH	23.72	0.56
ONGC PALATANA	23.52	0.55
SPECTRUM	22.89	0.54
TAMIL NADU	20.80	0.49
ANDHRA PRADESH	19.04	0.45
JHARKHAND	14.29	0.34
NTPC STATIONS-NER	12.63	0.30
ADHUNIK POWER LTD	12.35	0.29
JHABUA POWER_MP	12.29	0.29

ARUNACHAL PRADESH	12.11	0.29
CHUZACHEN HEP	12.05	0.28
ACBIL	11.80	0.28
DVC	11.69	0.28
DB POWER	10.18	0.24
SIKKIM	7.94	0.19
LANCO BUDHIL	6.65	0.16
MIZORAM	4.58	0.11
BALCO	4.49	0.11
IL&FS	3.01	0.07
RPREL	2.65	0.06
NLC	2.39	0.06
NAGALAND	2.34	0.06
TRIPURA	2.30	0.05
NTPC STATIONS-NR	1.75	0.04
RGPPL_IR	1.39	0.03
KSK MAHANADI	1.25	0.03
HARYANA	0.71	0.02
DHARIWAL POWER	0.47	0.01
UTTARAKHAND	0.31	0.01
NTPC STATIONS-ER	0.05	0.001
Total	4241.01	100.00
Volume sold by top 5 Regional Entities	1450.16	34.19

Table-15: VOLUME OF ELECTRICITY PURCHASED IN DAY AHEAD MARKET THROUGH POWER EXCHANGES, JULY 2021		
Name of the Entity	Volume of Purchase (MU)	% of Volume
GUJARAT	919.86	21.69
MAHARASHTRA	539.31	12.72
PUNJAB	518.66	12.23
HARYANA	335.12	7.90
TAMIL NADU	304.56	7.18
UTTAR PRADESH	297.08	7.00
TELANGANA	237.98	5.61
BIHAR	161.98	3.82
MP	132.52	3.12
ANDHRA PRADESH	122.48	2.89
RAJASTHAN	110.11	2.60
UTTARAKHAND	103.75	2.45
ASSAM	80.93	1.91
DELHI	72.63	1.71
NEPAL(NVVN)	72.23	1.70
KARNATAKA	47.78	1.13
KERALA	38.02	0.90
AMPS Hazira	27.56	0.65
DADRA & NAGAR HAVELI	25.75	0.61
CHHATTISGARH	19.84	0.47
WEST BENGAL	18.59	0.44
HIMACHAL PRADESH	14.98	0.35
DAMAN AND DIU	11.43	0.27
ODISHA	10.40	0.25
JHARKHAND	7.20	0.17
MEGHALAYA	4.14	0.10
CHANDIGARH	2.83	0.07
GOA	2.83	0.07
MANIPUR	0.47	0.01
TOTAL	4241.01	100.00
Volume purchased by top 5 Regional Entities	2617.51	61.72

Table-16: VOLUME OF ELECTRICITY SOLD IN REAL TIME MARKET THROUGH POWER EXCHANGES, JULY 2021

Name of the Entity	Volume of Sale (MU)	% of Volume
J & K	278.42	17.45
NLC	191.62	12.01
KARNATAKA	131.17	8.22
ODISHA	104.66	6.56
TELANGANA	89.40	5.60
DELHI	88.20	5.53
NEEPCO STATIONS	78.51	4.92
WEST BENGAL	68.23	4.27
KERALA	58.86	3.69
RAJASTHAN	56.45	3.54
NTPC STATIONS-SR	55.98	3.51
UTTAR PRADESH	54.99	3.45
MB POWER	32.85	2.06
CHHATTISGARH	28.72	1.80
SASAN UMPP	27.81	1.74
HIMACHAL PRADESH	23.34	1.46
HARYANA	22.68	1.42
MP	16.83	1.05
RKM POWER	14.80	0.93
BIHAR	13.38	0.84
JHABUA POWER_MP	13.19	0.83
EMCO	11.92	0.75
JHARKHAND	11.47	0.72
JINDAL STAGE-II	9.61	0.60
MAHARASHTRA	9.27	0.58
TRIPURA	8.64	0.54
GUJARAT	6.85	0.43
NTPC STATIONS-WR	6.72	0.42
JINDAL POWER	6.68	0.42
MANIPUR	6.10	0.38
NTPC STATIONS-NER	6.05	0.38
ASSAM	5.93	0.37
SEMBCORP	5.70	0.36
SIKKIM	5.47	0.34
TAMIL NADU	4.86	0.30
MEGHALAYA	3.91	0.25
TASHIDENG HEP	3.85	0.24
ARUNACHAL PRADESH	3.37	0.21
TEESTA STG3	3.22	0.20
BALCO	3.09	0.19
GMR KAMALANGA	3.08	0.19
ONGC PALATANA	2.83	0.18
NTPC STATIONS-ER	1.88	0.12
SAINJ HEP	1.79	0.11
AD HYDRO	1.73	0.11
MARUTI COAL	1.57	0.10
RPREL	1.56	0.10
ANDHRA PRADESH	1.27	0.08

JORETHANG	1.19	0.07
KARCHAM WANGTOO	1.14	0.07
SINGOLI BHATWARI HEP	1.07	0.07
ACBIL	0.76	0.05
DIKCHU HEP	0.72	0.05
DVC	0.53	0.03
NTPC STATIONS-NR	0.35	0.02
SKS POWER	0.33	0.02
IL&FS	0.32	0.02
DB POWER	0.28	0.02
SPECTRUM	0.22	0.01
RGPPL_Others	0.20	0.01
RGPPL_IR	0.12	0.01
NAGALAND	0.06	0.004
CHANDIGARH	0.06	0.004
CGPL	0.06	0.004
DHARIWAL POWER	0.04	0.003
ESSAR POWER	0.02	0.001
Total	1596.00	100.00
Volume sold by top 5 Regional Entities	795.27	49.83

Table-17: VOLUME OF ELECTRICITY PURCHASED IN REAL TIME MARKET THROUGH POWER EXCHANGES, JULY 2021		
Name of the Entity	Volume of Purchase (MU)	% of Volume
TELANGANA	243.19	15.24
HARYANA	188.64	11.82
UTTAR PRADESH	175.04	10.97
RAJASTHAN	167.79	10.51
WEST BENGAL	166.09	10.41
MAHARASHTRA	105.26	6.60
BIHAR	95.50	5.98
DELHI	77.22	4.84
GUJARAT	70.02	4.39
ANDHRA PRADESH	67.49	4.23
PUNJAB	46.46	2.91
TAMIL NADU	40.57	2.54
ODISHA	29.01	1.82
ASSAM	24.96	1.56
MP	23.51	1.47
HIMACHAL PRADESH	13.18	0.83
KARNATAKA	11.85	0.74
AMPS Hazira	7.76	0.49
JHARKHAND	7.56	0.47
KERALA	6.59	0.41
UTTARAKHAND	4.96	0.31
MANIPUR	4.68	0.29
CHHATTISGARH	4.64	0.29
DADRA & NAGAR HAVELI	3.72	0.23
TRIPURA	2.77	0.17
TASHIDENG HEP	1.48	0.09
MEGHALAYA	1.43	0.09
JORETHANG	1.24	0.08
DAMAN AND DIU	1.11	0.07
J & K	0.62	0.04
SKS POWER	0.49	0.03
DVC	0.44	0.03
SIKKIM	0.42	0.03
SAINJ HEP	0.21	0.01
ARUNACHAL PRADESH	0.08	0.005
ACBIL	0.02	0.001
TOTAL	1596.00	100.00
Volume purchased by top 5 Regional Entities	940.75	58.94

Table-18: VOLUME OF ELECTRICITY UNDER DRAWAL (EXPORTED) THROUGH DSM, JULY 2021		
Name of the Entity	Volume of Under drawal (MU)	% of Volume
PUNJAB	151.01	6.55
NHPC STATIONS	128.51	5.58
UTTAR PRADESH	126.01	5.47
MAHARASHTRA	110.65	4.80
GUJARAT	97.79	4.24
NTPC STATIONS-WR	91.63	3.98
PONDICHERRY	87.07	3.78
HARYANA	81.75	3.55
MP	77.25	3.35
KARNATAKA	71.26	3.09
RAJASTHAN	67.69	2.94
KERALA	62.86	2.73
DELHI	52.44	2.28
CHUKHA HEP	50.52	2.19
ANDHRA PRADESH	49.67	2.15
SASAN UMPP	45.72	1.98
NTPC STATIONS-NR	41.72	1.81
BIHAR	40.16	1.74
J & K	37.87	1.64
TAMIL NADU	37.63	1.63
DVC	33.38	1.45
NTPC STATIONS-ER	31.52	1.37
NLC	30.12	1.31
ODISHA	26.09	1.13
NTPC STATIONS-SR	25.11	1.09
CHHATTISGARH	23.78	1.03
AMPS Hazira	23.34	1.01
JHARKHAND	21.64	0.94
WEST BENGAL	20.90	0.91
BBMB	15.79	0.68
GIWEL_BHUI	15.62	0.68
KARCHAM WANGTOO	14.78	0.64
UTTARAKHAND	14.43	0.63
GOA	13.54	0.59
NEEPCO STATIONS	11.09	0.48
ASSAM	10.48	0.45
AGEMPL BHUI	10.40	0.45
SPRING_PUGALUR	10.28	0.45
CHANDIGARH	10.20	0.44
GIWEL_TCN	9.59	0.42
ORANGE_TCN	9.59	0.42
MANGDECHU HEP	9.39	0.41
TRIPURA	9.37	0.41
GMR KAMALANGA	9.14	0.40
TALA HEP	8.98	0.39
MB POWER	8.53	0.37
OSTRO	8.34	0.36
BETAM_TCN	8.07	0.35
NJPC	8.03	0.35
ALFANAR_BHUI	7.97	0.35
RENEW_BHACHAU	7.80	0.34
RAMPUR HEP	7.76	0.34
RENEW_BHUI	7.55	0.33
SINGOLI BHATWARI HEP	7.28	0.32
AD HYDRO	7.28	0.32
INOX_BHUI	7.23	0.31
MEGHALAYA	7.19	0.31
AYANA_NPKUNTA	6.74	0.29
KURICHU HEP	6.55	0.28
TATA_PVGD	6.08	0.26

ACME_SLR	5.97	0.26
RKM POWER	5.88	0.26
HIMACHAL PRADESH	5.79	0.25
JINDAL POWER	5.75	0.25
ARINSUM_RUMS	5.71	0.25
BRBCL,NABINAGAR	5.67	0.25
SBG_NPK	5.65	0.25
MAHINDRA_RUMS	5.44	0.24
ACME_RUMS	5.19	0.23
RENEW_SLR_BKN	5.10	0.22
SPRNG_NPKUNTA	5.04	0.22
MYTRAH_TCN	5.01	0.22
MAITHON POWER LTD	4.53	0.20
SBG_PVGD	4.25	0.18
ESSAR POWER	4.18	0.18
FORTUM2_PVGD	4.11	0.18
JINDAL STAGE-II	4.01	0.17
PARAM_PVGD	3.99	0.17
ACBIL	3.94	0.17
MRPL	3.78	0.16
MTPS II	3.76	0.16
AZURE_SLR	3.75	0.16
CLEAN_SLR	3.65	0.16
CGPL	3.63	0.16
JAYPEE NIGRIE	3.62	0.16
ARUNACHAL PRADESH	3.45	0.15
TEHRI	3.41	0.15
TEESTA HEP	3.38	0.15
BARC	3.38	0.15
LANKO_AMK	3.35	0.15
NAPP	3.27	0.14
NPGC	3.20	0.14
DADRA & NAGAR HAVELI	3.05	0.13
MIZORAM	3.04	0.13
JHABUA POWER_MP	3.01	0.13
SEMBCORP	2.99	0.13
AVAADA1_PVGD	2.98	0.13
JITPL	2.92	0.13
AVAADA2_PVGD	2.92	0.13
NEPAL(NVVN)	2.88	0.13
KOTESHWAR	2.85	0.12
ADHUNIK POWER LTD	2.81	0.12
NTPC_ANTP	2.76	0.12
AZURE34_SLR	2.56	0.11
NAGALAND	2.54	0.11
RGPPL	2.42	0.11
NTPL	2.42	0.10
BANGLADESH	2.35	0.10
TELANGANA	2.34	0.10
SB_SLR	2.31	0.10
TATA_SLR	2.26	0.10
SIKKIM	2.26	0.10
AZURE_PVGD	2.21	0.10
MANIPUR	2.21	0.10
RANGANADI HEP	2.11	0.09
EMCO	2.09	0.09
TATA_ANTP	2.05	0.09
RPREL	1.99	0.09
NETCL VALLUR	1.86	0.08
DB POWER	1.86	0.08
SAINJ HEP	1.85	0.08
KSK MAHANADI	1.83	0.08

TASHIDENG HEP	1.77	0.08
BALCO	1.73	0.07
FORTUM1_PVGD	1.69	0.07
NEP	1.64	0.07
THERMAL POWERTECH	1.60	0.07
RAIL	1.43	0.06
AZURE43_SLR	1.43	0.06
DIKCHU HEP	1.40	0.06
RAP B	1.35	0.06
NSPCL	1.32	0.06
DAMAN AND DIU	1.25	0.05
RENEW_SLR	1.17	0.05
ARERJL_SLR	1.17	0.05
ADY6_PVGD	1.16	0.05
NTPC STATIONS-NER	1.14	0.05
ADY10_PVGD	1.13	0.05
ADY3_PVGD	1.12	0.05
ADY2_PVGD	1.08	0.05
ADY1_PVGD	1.07	0.05
ABSP_ANTP	1.05	0.05
SB6_POKARAN	1.05	0.05
ONGC PALATANA	1.05	0.05
ADY13_PVGD	1.03	0.04
AKSP_ANTP	1.02	0.04
FRV_NPK	1.01	0.04
AHSP_ANTP	1.00	0.04
ARS_PVGD	0.99	0.04
SKS POWER	0.98	0.04
IGSTPS	0.97	0.04
YARROW_PVGD	0.95	0.04
TEESTA STG3	0.94	0.04
FRV_ANTP	0.85	0.04
RENEW_PVGD	0.81	0.04
AKS_PVGD	0.79	0.03
RONGNICHU HEP	0.75	0.03
KREDL_PVGD	0.74	0.03
DHARIWAL POWER	0.68	0.03
AZURE_ANTP	0.66	0.03
RANGIT HEP	0.65	0.03
RAP C	0.65	0.03
PARE HEP	0.65	0.03
ASEJTL_SLR	0.64	0.03
LOKTAK	0.58	0.03
CHUZACHEN HEP	0.48	0.02
DOYANG HEP	0.47	0.02
COASTGEN	0.46	0.02
DCPP	0.42	0.02
MEENAKSHI	0.42	0.02
TRN ENERGY	0.39	0.02
VINDHYACHAL HVDC	0.31	0.01
NFF	0.28	0.01
IL&FS	0.28	0.01
SHREE CEMENT	0.20	0.01
HVDC ALPD	0.09	0.004
BHADRAVATHI HVDC	0.08	0.003
HVDC RAIGARH	0.05	0.002
LANCO BUDHIL	0.05	0.002
HVDC CHAMPA	0.040	0.002
JORETHANG	0.037	0.002
Total	2304.89	100.00
Volume Exported by top 5 Regional Entities	613.97	26.64

Table-19: VOLUME OF ELECTRICITY OVER DRAWAL (IMPORTED) THROUGH DSM, JULY 2021		
Name of the Entity	Volume of Over drawal (MU)	% of Volume
NTPC STATIONS-WR	149.71	6.43
RAJASTHAN	134.32	5.76
TALA HEP	117.41	5.04
NTPC STATIONS-NR	82.15	3.53
KERALA	72.43	3.11
NTPC STATIONS-ER	66.64	2.86
MP	63.45	2.72
GUJARAT	62.56	2.68
WEST BENGAL	62.44	2.68
PUNJAB	58.69	2.52
PONDICHERRY	57.79	2.48
BIHAR	57.66	2.47
UTTAR PRADESH	57.22	2.46
HARYANA	53.05	2.28
KARNATAKA	48.95	2.10
ANDHRA PRADESH	45.31	1.94
HIMACHAL PRADESH	43.50	1.87
MAHARASHTRA	42.43	1.82
UTTARAKHAND	41.96	1.80
J & K	40.75	1.75
ODISHA	39.75	1.71
CHHATTISGARH	32.69	1.40
NTPC STATIONS-SR	30.87	1.32
NLC	26.31	1.13
CHUKHA HEP	25.72	1.10
RGPPL	24.00	1.03
CGPL	23.14	0.99
AMPS Hazira	22.60	0.97
BALCO	22.47	0.96
TAMIL NADU	21.81	0.94
DVC	19.08	0.82
RAIL	18.90	0.81
ASSAM	18.63	0.80
THERMAL POWERTECH	18.14	0.78
JHARKHAND	16.61	0.71
DELHI	15.88	0.68
RPREL	15.46	0.66
NEPAL(NVVN)	15.23	0.65
NHPC STATIONS	14.23	0.61
MB POWER	14.06	0.60
NETCL VALLUR	13.59	0.58
KAPP 3&4	13.49	0.58
DB POWER	11.48	0.49
AGEMPL BHUJ	11.03	0.47
EMCO	10.65	0.46
SB6_POKARAN	10.43	0.45
MYTRAH_TCN	10.35	0.44
BRBCL,NABINAGAR	10.24	0.44
GIWEL_TCN	9.79	0.42
RENEW_BHACHAU	9.78	0.42
GIWEL_BHUJ	9.58	0.41
NPGC	9.54	0.41
TATA_PVGD	9.40	0.40
ORANGE_TCN	8.83	0.38
RENEW_BHUJ	8.75	0.38
MANGDECHU HEP	8.57	0.37
BETAM_TCN	8.02	0.34
DADRA & NAGAR HAVELI	7.89	0.34
SEMBCORP	7.80	0.33
DAMAN AND DIU	7.61	0.33
RONGNICHU HEP	7.53	0.32

MAITHON POWER LTD	7.52	0.32
OSTRO	7.49	0.32
RAP C	7.35	0.32
SPRING_PUGALUR	7.10	0.30
NTPC STATIONS-NER	6.83	0.29
NEP	6.82	0.29
DAGACHU	6.77	0.29
ACME_RUMS	6.69	0.29
IGSTPS	6.48	0.28
NAPP	6.38	0.27
GOA	6.26	0.27
ARERJL_SLR	6.17	0.26
CHANDIGARH	5.80	0.25
ARUNACHAL PRADESH	5.69	0.24
GMR KAMALANGA	5.67	0.24
MAHINDRA_RUMS	5.67	0.24
SKS POWER	5.66	0.24
ARINSUM_RUMS	5.64	0.24
RKM POWER	5.52	0.24
CLEAN_SLR	5.44	0.23
JHABUA POWER_MP	5.43	0.23
TEESTA STG3	5.29	0.23
ALFANAR_BHUJ	5.28	0.23
TRIPURA	5.22	0.22
SBG_NPK	5.12	0.22
TEHRI	4.87	0.21
NSPCL	4.63	0.20
SINGOLI BHATWARI HEP	4.63	0.20
TATA_SLR	4.61	0.20
AYANA_NPKUNTA	4.30	0.18
SPRNG_NPKUNTA	4.27	0.18
COASTGEN	4.16	0.18
NTPC_ANTP	4.14	0.18
SBG_PVGD	4.03	0.17
INOX_BHUJ	3.97	0.17
SIKKIM	3.97	0.17
JINDAL STAGE-II	3.79	0.16
MTPS II	3.71	0.16
ADHUNIK POWER LTD	3.70	0.16
RENEW_SLR_BKN	3.63	0.16
IL&FS	3.57	0.15
AD HYDRO	3.34	0.14
BBMB	3.33	0.14
SB_SLR	3.30	0.14
JITPL	3.25	0.14
FORTUM2_PVGD	3.23	0.14
MRPL	3.13	0.13
AVAADA2_PVGD	2.99	0.13
NTPL	2.96	0.13
MANIPUR	2.95	0.13
KARCHAM WANGTOO	2.83	0.12
PARAM_PVGD	2.62	0.11
AVAADA1_PVGD	2.57	0.11
TASHIDENG HEP	2.55	0.11
JAYPEE NIGRIE	2.52	0.11
KSK MAHANADI	2.48	0.11
MEGHALAYA	2.46	0.11
ACBIL	2.39	0.10
NEEPCO STATIONS	2.34	0.10
ACME_SLR	2.04	0.09
DHARIWAL POWER	1.88	0.08
TATA_ANTP	1.88	0.08
MIZORAM	1.81	0.08

JORETHANG	1.74	0.07
FORTUM1_PVGD	1.73	0.07
AZURE34_SLR	1.72	0.07
AZURE_SLR	1.71	0.07
SASAN UMPP	1.67	0.07
NJPC	1.66	0.07
JINDAL POWER	1.64	0.07
ESSAR POWER	1.60	0.07
MEENAKSHI	1.51	0.06
KURICHU HEP	1.46	0.06
RENEW_PVGD	1.44	0.06
BANGLADESH	1.36	0.06
TELANGANA	1.35	0.06
AZURE_PVGD	1.34	0.06
AZURE43_SLR	1.30	0.06
ONGC PALATANA	1.28	0.05
NAGALAND	1.17	0.05
ASEJTL_SLR	1.16	0.05
AZURE_ANTP	1.11	0.05
AKS_PVGD	1.07	0.05
DGEN MEGA POWER	1.05	0.05
ABSP_ANTP	1.05	0.04
FRV_NPK	1.05	0.04
FRV_ANTP	1.05	0.04
AHSP_ANTP	1.03	0.04
YARROW_PVGD	1.00	0.04
AKSP_ANTP	1.00	0.04
RANGIT HEP	0.98	0.04
RAP B	0.93	0.04
SAINJ HEP	0.92	0.04
KREDL_PVGD	0.92	0.04
ARS_PVGD	0.88	0.04
ADY3_PVGD	0.85	0.04
TRN ENERGY	0.85	0.04
ADY1_PVGD	0.84	0.04
ADY2_PVGD	0.83	0.04
ADY6_PVGD	0.80	0.03
RENEW_SLR	0.77	0.03
ADY10_PVGD	0.74	0.03
ADY13_PVGD	0.74	0.03
RANGANADI HEP	0.72	0.03
LANKO KONDAPALLI	0.59	0.03
SHREE CEMENT	0.51	0.02
LANKO_AMK	0.48	0.02
KOTESHWAR	0.46	0.02
SIMHAPURI	0.44	0.02
CHUZACHEN HEP	0.41	0.02
LOKTAK	0.38	0.02
LANCO BUDHIL	0.37	0.02
HVDC CHAMPA	0.36	0.02
DIKCHU HEP	0.34	0.01
NFF	0.23	0.01
HVDC PUS	0.22	0.01
DOYANG HEP	0.17	0.01
TEESTA HEP	0.16	0.01
RAMPUR HEP	0.11	0.005
PARE HEP	0.09	0.004
DCPP	0.08	0.003
HVDC RAIGARH	0.07	0.003
HVDC ALPD	0.07	0.003
BHADRAVATHI HVDC	0.01	0.0003
TOTAL	2330.03	100.00
Volume Imported by top 5 Regional Entities	556.02	23.86

Table-20: TOTAL VOLUME OF NET SHORT-TERM TRANSACTIONS OF ELECTRICITY (REGIONAL ENTITY-WISE), JULY 2021

S. No.	Name of the Entity	Total volume of net short-term transactions of electricity*
1	PUNJAB	2638.26
2	HARYANA	2315.60
3	GUJARAT	1352.89
4	DELHI	1217.33
5	MAHARASHTRA	690.29
6	UTTAR PRADESH	670.34
7	BIHAR	468.27
8	TELANGANA	283.67
9	WEST BENGAL	282.09
10	RAJASTHAN	233.37
11	ODISHA	183.14
12	AMPS Hazira	170.48
13	ANDHRA PRADESH	146.35
14	JHARKHAND	115.48
15	TALA HEP	108.43
16	DADRA & NAGAR HAVELI	97.04
17	NEPAL(NVVN)	84.58
18	BANGLADESH	70.36
19	ASSAM	62.73
20	NTPC STATIONS-WR	51.36
21	TAMIL NADU	44.93
22	NTPC STATIONS-NR	38.33
23	NTPC STATIONS-ER	33.19
24	NEP	28.56
25	CHHATTISGARH	25.73
26	DAMAN AND DIU	25.25
27	RGPPL	21.57
28	CGPL	19.45
29	RAIL	17.47
30	KAPP 3&4	13.49
31	THERMAL POWERTECH	13.00
32	NETCL VALLUR	11.73
33	SB6_POKARAN	9.39
34	RAP C	6.70
35	NPGC	6.35
36	IGSTPS	5.50
37	MYTRAH_TCN	5.34
38	BRBCL,NABINAGAR	4.57
39	RONGNICHU HEP	4.10
40	COASTGEN	3.70
41	TATA_PVGD	3.33
42	NSPCL	3.31
43	NAPP	3.11
44	MAITHON POWER LTD	2.99
45	RENEW_BHACHAU	1.98
46	CLEAN_SLR	1.80
47	ACME_RUMS	1.51
48	TEHRI	1.46
49	NTPC_ANTP	1.38
50	RENEW_BHUJ	1.19
51	DGEN MEGA POWER	1.05
52	SB_SLR	1.00
53	DHARIWAL POWER	0.69
54	AGEMPL BHUJ	0.63
55	RENEW_PVGD	0.63
56	LANKO KONDAPALLI	0.59
57	NTPL	0.54
58	TRN ENERGY	0.46
59	AZURE_ANTP	0.45
60	SIMHAPURI	0.44
61	RANGIT HEP	0.33

62	HVDC CHAMPA	0.32
63	SHREE CEMENT	0.31
64	AKS_PVGD	0.28
65	MAHINDRA_RUMS	0.23
66	HVDC PUS	0.22
67	FRV_ANTP	0.20
68	GIWEL_TCN	0.19
69	KREDL_PVGD	0.18
70	AVAADA2_PVGD	0.07
71	YARROW_PVGD	0.06
72	FORTUM1_PVGD	0.05
73	FRV_NPK	0.04
74	AHSP_ANTP	0.03
75	HVDC RAIGARH	0.02
76	ABSP_ANTP	-0.01
77	HVDC ALPD	-0.02
78	AKSP_ANTP	-0.03
79	IL&FS	-0.03
80	MTPS II	-0.05
81	NFF	-0.05
82	BETAM_TCN	-0.05
83	BHADRAVATHI HVDC	-0.07
84	ARINSUM_RUMS	-0.07
85	ARS_PVGD	-0.11
86	AZURE43_SLR	-0.13
87	TATA_ANTP	-0.18
88	RGPPPL_Others	-0.20
89	LOKTAK	-0.20
90	SBG_PVGD	-0.21
91	ADY1_PVGD	-0.22
92	ADY2_PVGD	-0.25
93	ADY3_PVGD	-0.27
94	ADY13_PVGD	-0.29
95	DOYANG HEP	-0.30
96	VINDHYACHAL HVDC	-0.31
97	DCPP	-0.34
98	ADY6_PVGD	-0.36
99	ADY10_PVGD	-0.39
100	RENEW_SLR	-0.40
101	AVAADA1_PVGD	-0.41
102	RAP B	-0.42
103	SBG_NPK	-0.53
104	PARE HEP	-0.55
105	ORANGE_TCN	-0.76
106	SPRNG_NPKUNTA	-0.78
107	MANGDECHU HEP	-0.82
108	AZURE34_SLR	-0.84
109	OSTRO	-0.84
110	AZURE_PVGD	-0.87
111	FORTUM2_PVGD	-0.87
112	PARAM_PVGD	-1.37
113	RANGANADI HEP	-1.40
114	RENEW_SLR_BKN	-1.47
115	RGPPPL_IR	-1.51
116	AZURE_SLR	-2.04
117	KOTESHWAR	-2.40
118	AYANA_NPKUNTA	-2.44
119	ALFANAR_BHUI	-2.70
120	SPRING_PUGALUR	-3.18
121	TEESTA HEP	-3.22
122	INOX_BHUI	-3.26
123	BARC	-3.38
124	ACME_SLR	-3.93
125	TATA_SLR	-4.00
126	NAGALAND	-5.07
127	KURICHU HEP	-5.09
128	MIZORAM	-5.81

129	GIWEL_BHUI	-6.03
130	LANCO BUDHIL	-6.33
131	NJPC	-6.37
132	RAMPUR HEP	-7.65
133	BALCO	-8.07
134	ASEJTL_SLR	-11.26
135	CHUZACHEN HEP	-12.12
136	LANKO_AMK	-12.13
137	TRIPURA	-12.32
138	BBMB	-12.46
139	NTPC STATIONS-NER	-13.44
140	ACBIL	-14.09
141	GOA	-14.18
142	ARUNACHAL PRADESH	-14.65
143	MANIPUR	-20.87
144	SPECTRUM	-23.11
145	CHUKHA HEP	-24.80
146	CHANDIGARH	-25.35
147	PONDICHERRY	-29.28
148	SIKKIM	-31.34
149	GMR KAMALANGA	-31.77
150	ONGC PALATANA	-33.92
151	MRPL	-35.93
152	MARUTI COAL	-38.48
153	EMCO	-40.09
154	ARERJL_SLR	-41.60
155	KSK MAHANADI	-43.59
156	MEGHALAYA	-53.06
157	JHABUA POWER_MP	-59.14
158	UTTARAKHAND	-61.96
159	SINGOLI BHATWARI HEP	-69.09
160	MEENAKSHI	-70.26
161	SASAN UMPP	-71.86
162	JORETHANG	-72.08
163	TASHIDENG HEP	-74.81
164	DIKCHU HEP	-76.77
165	SAINJ HEP	-79.21
166	KARCHAM WANGTOO	-85.03
167	DAGACHU	-85.10
168	JINDAL STAGE-II	-93.44
169	NTPC STATIONS-SR	-106.85
170	NHPC STATIONS	-114.27
171	SKS POWER	-144.94
172	AD HYDRO	-146.99
173	ADHUNIK POWER LTD	-150.21
174	KERALA	-186.23
175	NLC	-197.81
176	MB POWER	-223.05
177	ESSAR POWER	-232.10
178	DVC	-242.60
179	NEEPCO STATIONS	-249.55
180	RKM POWER	-341.97
181	REGL	-353.81
182	JAYPEE NIGRIE	-356.62
183	JINDAL POWER	-361.85
184	DB POWER	-382.37
185	JITPL	-483.12
186	SEMBCORP	-532.97
187	MP	-566.50
188	J & K	-722.70
189	TEESTA STG3	-723.91
190	RPREL	-824.92
191	KARNATAKA	-1173.80
192	HIMACHAL PRADESH	-1179.55

* 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-21: DETAILS OF CONGESTION IN POWER EXCHANGES, JULY 2021					
	Details of Congestion	Day Ahead Market		Real Time Market	
		IEX	PXIL	IEX	PXIL
A	Unconstrained Cleared Volume (MU)	4247.04	2.76	1622.29	0.00
B	Actual Cleared Volume and hence scheduled (MU)	4238.25	2.76	1596.00	0.00
C	Volume of electricity that could not be cleared and hence not scheduled because of congestion (MU)	0.00	0.00	26.29	0.00
D	Volume of electricity that could not be cleared and hence not scheduled because of reasons other than congestion (MU) *	8.79	0.00	0.00	0.00
E	Volume of electricity that could not be cleared as % to Unconstrained Cleared Volume	0.21%	0.00%	1.62%	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%	37.20%	0.00%
G	Congestion occurrence (%) time block wise				
	0.00 - 6.00 hours	0.00%	0.00%	20.51%	0.00%
	6.00 - 12.00 hours	0.00%	0.00%	23.40%	0.00%
	12.00 - 18.00 hours	0.00%	0.00%	33.42%	0.00%
	18.00 - 24.00 hours	0.00%	0.00%	22.67%	0.00%
<i>*Rejection of block bids on account of margin constraint but absence of sell bids in N3 region did not lead to market splitting, for few days of July 2021</i>					
<i>Source: IEX, PXIL&NLDC</i>					

**Table-22: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY IN INDIA
(DAY-WISE) (MU), JULY 2021**

Date	Bilateral		Day Ahead Market [#]		Real Time Market [#]		Deviation Settlement (Over Drawl+Under Generation)	Total Electricity Generation (MU)*
	Through Traders and PXs**	Direct	IEX	PXIL	IEX	PXIL		
1-Jul-21	220.45	76.27	131.54	0.23	47.84	0.00	74.16	4021.23
2-Jul-21	207.10	80.31	119.32	0.05	46.91	0.00	75.03	3907.65
3-Jul-21	226.67	82.15	130.82	0.16	53.00	0.00	83.16	3908.69
4-Jul-21	205.16	81.52	117.80	0.05	56.94	0.00	72.36	3980.84
5-Jul-21	210.75	84.71	176.31	0.00	53.18	0.00	72.12	4202.16
6-Jul-21	209.81	86.17	170.00	0.16	53.93	0.00	69.62	4349.95
7-Jul-21	214.86	87.95	161.62	0.44	68.29	0.00	71.62	4321.36
8-Jul-21	207.60	82.07	150.70	0.00	57.52	0.00	73.13	4141.89
9-Jul-21	213.27	81.31	148.60	0.00	45.71	0.00	73.21	4159.31
10-Jul-21	210.13	84.83	152.49	0.00	81.61	0.00	71.33	4079.74
11-Jul-21	195.62	75.79	147.20	0.00	72.51	0.00	74.38	3865.48
12-Jul-21	203.57	72.12	169.89	0.00	50.62	0.00	76.18	3813.39
13-Jul-21	213.18	70.82	163.44	0.00	45.36	0.00	76.85	3772.38
14-Jul-21	222.79	71.44	132.37	0.14	51.16	0.00	76.20	3762.26
15-Jul-21	228.60	65.90	143.48	0.28	43.07	0.00	70.71	3815.73
16-Jul-21	214.63	70.30	152.96	0.38	47.53	0.00	73.34	3998.42
17-Jul-21	214.16	72.51	149.03	0.73	63.69	0.00	77.20	4024.68
18-Jul-21	218.13	67.89	119.37	0.00	40.57	0.00	76.09	3652.59
19-Jul-21	214.68	62.84	103.00	0.00	65.93	0.00	80.33	3396.74
20-Jul-21	209.58	65.26	106.83	0.15	57.21	0.00	81.25	3323.92
21-Jul-21	215.58	66.46	111.33	0.00	47.38	0.00	76.46	3268.76
22-Jul-21	217.16	67.06	131.81	0.00	50.58	0.00	71.76	3364.35
23-Jul-21	219.36	64.07	152.28	0.00	43.92	0.00	76.04	3561.40
24-Jul-21	217.55	65.59	161.32	0.00	46.12	0.00	74.29	3521.17
25-Jul-21	209.34	67.93	120.32	0.00	53.22	0.00	74.03	3470.83
26-Jul-21	221.20	67.69	112.00	0.00	47.73	0.00	71.47	3543.29
27-Jul-21	224.10	66.04	107.26	0.00	46.93	0.00	77.26	3459.18
28-Jul-21	224.15	61.93	121.81	0.00	45.47	0.00	76.69	3234.22
29-Jul-21	212.89	60.11	127.85	0.00	33.64	0.00	73.00	3246.61
30-Jul-21	215.40	59.03	125.03	0.00	33.33	0.00	70.64	3243.91
31-Jul-21	210.69	59.43	120.45	0.00	45.11	0.00	77.53	3242.53
Total	6648.16	2227.52	4238.25	2.76	1596.00	0.00	2317.46	115654.66

Source: NLDC

* As per data available on CEA Website. 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-23: PRICE OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (DAY-WISE)(₹/kWh), JULY 2021									
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-Jul-21	2.47	7.50	3.87	2.80	5.49	3.66	0.00	7.19	2.81
2-Jul-21	2.09	8.81	3.76	2.32	2.32	2.32	0.00	6.61	2.20
3-Jul-21	2.32	10.00	4.12	2.37	2.76	2.48	0.00	8.00	3.48
4-Jul-21	1.80	4.84	2.76	2.44	2.44	2.44	0.00	8.00	2.67
5-Jul-21	2.65	9.11	3.72	-	-	-	0.00	8.00	4.01
6-Jul-21	2.74	6.48	3.84	2.96	3.16	2.98	0.00	8.00	4.76
7-Jul-21	2.94	9.02	4.30	2.96	2.96	2.96	0.00	8.00	3.90
8-Jul-21	2.96	10.90	5.04	-	-	-	0.00	6.54	3.22
9-Jul-21	1.80	7.10	3.52	-	-	-	0.00	8.00	2.77
10-Jul-21	2.22	4.50	3.07	-	-	-	0.00	8.00	3.13
11-Jul-21	1.98	4.53	2.99	-	-	-	0.00	8.00	3.21
12-Jul-21	2.75	6.10	3.62	-	-	-	0.00	8.00	2.15
13-Jul-21	2.10	5.65	3.38	-	-	-	0.00	5.36	2.34
14-Jul-21	1.18	4.50	2.87	2.99	2.99	2.99	0.00	5.35	1.98
15-Jul-21	1.75	4.93	3.13	2.99	6.99	3.51	0.00	6.43	3.01
16-Jul-21	1.50	5.80	3.23	2.99	4.11	3.80	0.00	8.00	3.70
17-Jul-21	1.50	7.00	3.54	2.81	3.99	3.22	0.00	7.71	2.31
18-Jul-21	1.50	4.98	2.72	-	-	-	0.00	6.28	1.37
19-Jul-21	1.50	3.00	2.04	-	-	-	0.00	8.00	1.62
20-Jul-21	1.10	3.04	1.86	3.11	3.11	3.11	0.00	5.28	1.58
21-Jul-21	1.10	3.70	2.11	-	-	-	0.00	6.12	1.83
22-Jul-21	1.30	3.85	2.24	-	-	-	0.00	5.07	1.93
23-Jul-21	2.00	4.83	2.79	-	-	-	0.00	8.00	3.50
24-Jul-21	1.50	4.84	2.98	-	-	-	0.00	8.00	3.97
25-Jul-21	1.50	4.00	2.40	-	-	-	0.00	8.00	2.23
26-Jul-21	1.30	4.62	2.54	-	-	-	0.00	7.30	2.78
27-Jul-21	1.50	3.53	2.16	-	-	-	0.00	8.00	2.61
28-Jul-21	1.50	3.70	2.33	-	-	-	0.00	6.93	2.70
29-Jul-21	1.98	4.00	2.38	-	-	-	0.00	6.59	2.15
30-Jul-21	1.80	4.25	2.55	-	-	-	0.00	4.88	2.36
31-Jul-21	1.00	3.39	2.30	-	-	-	0.00	8.00	2.47
	1.00[#]	10.90[#]	3.11	2.32[#]	6.99[#]	3.22	0.00[#]	8.00[#]	2.73

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-24: PRICE OF REAL TIME MARKET TRANSACTIONS OF ELECTRICITY (DAY-WISE) (₹/kWh), JULY 2021						
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-Jul-21	1.50	12.68	2.82	--	--	--
2-Jul-21	0.60	12.40	2.59	--	--	--
3-Jul-21	1.00	12.90	2.77	--	--	--
4-Jul-21	1.95	11.68	2.98	--	--	--
5-Jul-21	2.80	11.68	4.07	--	--	--
6-Jul-21	2.91	16.85	6.00	--	--	--
7-Jul-21	2.80	13.35	4.16	--	--	--
8-Jul-21	1.89	11.65	2.77	--	--	--
9-Jul-21	1.50	11.65	3.34	--	--	--
10-Jul-21	2.00	12.05	3.35	--	--	--
11-Jul-21	1.20	11.90	2.68	--	--	--
12-Jul-21	1.40	5.80	2.39	--	--	--
13-Jul-21	0.20	3.41	2.41	--	--	--
14-Jul-21	1.10	3.80	2.42	--	--	--
15-Jul-21	0.50	11.68	2.87	--	--	--
16-Jul-21	1.81	11.63	4.00	--	--	--
17-Jul-21	2.00	13.00	3.99	--	--	--
18-Jul-21	1.20	13.00	1.87	--	--	--
19-Jul-21	0.40	3.60	1.54	--	--	--
20-Jul-21	1.00	3.29	2.11	--	--	--
21-Jul-21	0.48	11.58	2.27	--	--	--
22-Jul-21	1.20	11.68	2.27	--	--	--
23-Jul-21	1.50	3.45	2.41	--	--	--
24-Jul-21	1.00	11.68	2.84	--	--	--
25-Jul-21	0.30	11.18	2.22	--	--	--
26-Jul-21	0.30	11.28	2.63	--	--	--
27-Jul-21	1.40	11.23	2.38	--	--	--
28-Jul-21	1.50	3.25	2.06	--	--	--
29-Jul-21	0.50	3.00	2.19	--	--	--
30-Jul-21	0.20	2.88	1.93	--	--	--
31-Jul-21	0.50	2.85	1.90	--	--	--
	0.20[#]	16.85[#]	2.84	--	--	--

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-25: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (REGIONAL ENTITY*-WISE) (MU), JULY 2021

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	0.00	2165.45	2165.45	0.00	565.12	565.12	58.69	151.01	-92.32	2638.26
HARYANA	1.65	1845.60	1843.95	23.39	523.76	500.37	53.05	81.75	-28.71	2315.60
RAJASTHAN	158.20	173.23	15.03	126.19	277.90	151.71	134.32	67.69	66.63	233.37
DELHI	0.00	1290.10	1290.10	186.06	149.84	-36.21	15.88	52.44	-36.56	1217.33
UP	1.50	504.38	502.88	235.87	472.12	236.25	57.22	126.01	-68.79	670.34
UTTARAKHAND	208.46	10.56	-197.89	0.31	108.71	108.40	41.96	14.43	27.53	-61.96
HIMACHAL P	814.95	0.00	-814.95	430.46	28.16	-402.31	43.50	5.79	37.71	-1179.55
J & K	268.19	0.00	-268.19	458.00	0.62	-457.38	40.75	37.87	2.87	-722.70
CHANDIGARH	0.00	0.00	0.00	23.78	2.83	-20.95	5.80	10.20	-4.40	-25.35
MP	822.74	193.74	-629.00	79.73	156.04	76.31	63.45	77.25	-13.80	-566.50
MAHARASHTRA	6.65	199.11	192.46	78.52	644.57	566.04	42.43	110.65	-68.21	690.29
GUJARAT	66.75	498.93	432.18	33.94	989.88	955.94	62.56	97.79	-35.24	1352.89
CHHATTISGARH	4.59	130.13	125.54	133.19	24.47	-108.72	32.69	23.78	8.91	25.73
GOA	28.98	45.88	16.91	26.64	2.83	-23.81	6.26	13.54	-7.28	-14.18
DAMAN AND DIU	0.00	6.34	6.34	0.00	12.54	12.54	7.61	1.25	6.36	25.25
DADRA & NAGAR H	0.00	62.74	62.74	0.00	29.46	29.46	7.89	3.05	4.84	97.04
ANDHRA P	31.72	12.76	-18.96	20.31	189.97	169.66	45.31	49.67	-4.36	146.35
KARNATAKA	735.38	8.04	-727.34	483.78	59.63	-424.15	48.95	71.26	-22.32	-1173.80
KERALA	41.79	0.00	-41.79	198.62	44.61	-154.01	72.43	62.86	9.57	-186.23
TAMIL NADU	374.62	115.90	-258.72	25.66	345.14	319.47	21.81	37.63	-15.83	44.93
PONDICHERRY	0.00	0.00	0.00	0.00	0.00	0.00	57.79	87.07	-29.28	-29.28
TELANGANA	93.64	133.23	39.59	236.09	481.16	245.07	1.35	2.34	-1.00	283.67
WEST BENGAL	49.78	295.79	246.00	190.12	184.68	-5.44	62.44	20.90	41.53	282.09
ODISHA	22.33	502.78	480.45	350.39	39.41	-310.98	39.75	26.09	13.67	183.14
BIHAR	0.00	249.76	249.76	56.47	257.48	201.01	57.66	40.16	17.50	468.27
JHARKHAND	0.00	131.49	131.49	25.76	14.76	-10.99	16.61	21.64	-5.03	115.48
SIKKIM	77.19	57.14	-20.05	13.41	0.42	-12.99	3.97	2.26	1.71	-31.34
DVC	222.84	6.31	-216.53	12.22	0.44	-11.78	19.08	33.38	-14.30	-242.60
ARUNACHAL P	1.49	0.00	-1.49	15.48	0.08	-15.40	5.69	3.45	2.24	-14.65
ASSAM	0.00	5.63	5.63	56.95	105.89	48.94	18.63	10.48	8.15	62.73
MANIPUR	20.66	0.00	-20.66	6.10	5.14	-0.95	2.95	2.21	0.74	-20.87
MEGHALAYA	24.75	0.00	-24.75	29.15	5.57	-23.58	2.46	7.19	-4.73	-53.06
MIZORAM	0.00	0.00	0.00	4.58	0.00	-4.58	1.81	3.04	-1.23	-5.81
NAGALAND	1.30	0.00	-1.30	2.41	0.00	-2.41	1.17	2.54	-1.37	-5.07
TRIPURA	0.00	0.00	0.00	10.94	2.77	-8.18	5.22	9.37	-4.15	-12.32
NTPC STNS-NR	0.00	0.00	0.00	2.10	0.00	-2.10	82.15	41.72	40.43	38.33
NHPC STNS	0.00	0.00	0.00	0.00	0.00	0.00	14.23	128.51	-114.27	-114.27
NFF	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.28	-0.05	-0.05
RAIL	0.00	0.00	0.00	0.00	0.00	0.00	18.90	1.43	17.47	17.47
NEP	0.00	23.39	23.39	0.00	0.00	0.00	6.82	1.64	5.17	28.56
NAPP	0.00	0.00	0.00	0.00	0.00	0.00	6.38	3.27	3.11	3.11
RAP B	0.00	0.00	0.00	0.00	0.00	0.00	0.93	1.35	-0.42	-0.42
NJPC	0.00	0.00	0.00	0.00	0.00	0.00	1.66	8.03	-6.37	-6.37
TEHRI	0.00	0.00	0.00	0.00	0.00	0.00	4.87	3.41	1.46	1.46
BBMB	0.00	0.00	0.00	0.00	0.00	0.00	3.33	15.79	-12.46	-12.46
RAP C	0.00	0.00	0.00	0.00	0.00	0.00	7.35	0.65	6.70	6.70
AD HYDRO	94.99	0.00	-94.99	48.07	0.00	-48.07	3.34	7.28	-3.93	-146.99
IGSTPS	0.00	0.00	0.00	0.00	0.00	0.00	6.48	0.97	5.50	5.50
KOTESHWAR	0.00	0.00	0.00	0.00	0.00	0.00	0.46	2.85	-2.40	-2.40
KARCHAM WANGTC	17.93	0.00	-17.93	55.16	0.00	-55.16	2.83	14.78	-11.94	-85.03
SHREE CEMENT	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.20	0.31	0.31
LANCO BUDHIL	0.00	0.00	0.00	6.65	0.00	-6.65	0.37	0.05	0.32	-6.33
RAMPUR HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.11	7.76	-7.65	-7.65
SAINJ HEP	7.75	0.00	-7.75	70.74	0.21	-70.53	0.92	1.85	-0.93	-79.21
RENEW_SLR	0.00	0.00	0.00	0.00	0.00	0.00	0.77	1.17	-0.40	-0.40
AZURE_SLR	0.00	0.00	0.00	0.00	0.00	0.00	1.71	3.75	-2.04	-2.04
SB_SLR	0.00	0.00	0.00	0.00	0.00	0.00	3.30	2.31	1.00	1.00
ACME_SLR	0.00	0.00	0.00	0.00	0.00	0.00	2.04	5.97	-3.93	-3.93
AZURE34_SLR	0.00	0.00	0.00	0.00	0.00	0.00	1.72	2.56	-0.84	-0.84
TATA_SLR	6.35	0.00	-6.35	0.00	0.00	0.00	4.61	2.26	2.34	-4.00
RENEW_SLR_BKN	0.00	0.00	0.00	0.00	0.00	0.00	3.63	5.10	-1.47	-1.47
CLEAN_SLR	0.00	0.00	0.00	0.00	0.00	0.00	5.44	3.65	1.80	1.80

ARERJL_SLR	46.61	0.00	-46.61	0.00	0.00	0.00	6.17	1.17	5.01	-41.60
ASEJTL_SLR	11.78	0.00	-11.78	0.00	0.00	0.00	1.16	0.64	0.52	-11.26
SINGOLI BHATWAR	0.00	0.00	0.00	66.44	0.00	-66.44	4.63	7.28	-2.66	-69.09
AZURE43_SLR	0.00	0.00	0.00	0.00	0.00	0.00	1.30	1.43	-0.13	-0.13
MRPL	35.28	0.00	-35.28	0.00	0.00	0.00	3.13	3.78	-0.65	-35.93
SB6_POKARAN	0.00	0.00	0.00	0.00	0.00	0.00	10.43	1.05	9.39	9.39
NTPC STNS-WR	0.00	0.00	0.00	6.72	0.00	-6.72	149.71	91.63	58.08	51.36
BHADRAVATHI HVI	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.08	-0.07	-0.07
VINDHYACHAL HVI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31	-0.31	-0.31
JINDAL POWER	226.17	0.00	-226.17	131.57	0.00	-131.57	1.64	5.75	-4.11	-361.85
LANKO_AMK	9.26	0.00	-9.26	0.00	0.00	0.00	0.48	3.35	-2.87	-12.13
NSPCL	0.00	0.00	0.00	0.00	0.00	0.00	4.63	1.32	3.31	3.31
ACBIL	0.00	0.00	0.00	12.56	0.02	-12.54	2.39	3.94	-1.55	-14.09
BALCO	21.23	0.00	-21.23	7.58	0.00	-7.58	22.47	1.73	20.74	-8.07
RGPPL	0.00	0.00	0.00	0.00	0.00	0.00	24.00	2.42	21.57	21.57
CGPL	0.00	0.00	0.00	0.06	0.00	-0.06	23.14	3.63	19.51	19.45
DCPP	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.42	-0.34	-0.34
EMCO	0.00	0.00	0.00	48.65	0.00	-48.65	10.65	2.09	8.56	-40.09
KSK MAHANADI	42.98	0.00	-42.98	1.25	0.00	-1.25	2.48	1.83	0.64	-43.59
ESSAR POWER	90.84	0.00	-90.84	138.68	0.00	-138.68	1.60	4.18	-2.58	-232.10
JINDAL STAGE-II	46.38	0.00	-46.38	46.84	0.00	-46.84	3.79	4.01	-0.22	-93.44
DB POWER	381.53	0.00	-381.53	10.46	0.00	-10.46	11.48	1.86	9.62	-382.37
DHARIWAL POWER	0.00	0.00	0.00	0.51	0.00	-0.51	1.88	0.68	1.20	0.69
JAYPEE NIGRIE	306.25	0.00	-306.25	49.26	0.00	-49.26	2.52	3.62	-1.10	-356.62
DGEN MEGA POWER	0.00	0.00	0.00	0.00	0.00	0.00	1.05	0.00	1.05	1.05
MB POWER	119.83	0.00	-119.83	108.76	0.00	-108.76	14.06	8.53	5.53	-223.05
MARUTI COAL	0.00	0.00	0.00	38.48	0.00	-38.48	0.00	0.00	0.000	-38.479
SPECTRUM	0.00	0.00	0.00	23.11	0.00	-23.11	0.00	0.00	0.00	-23.11
JHABUA POWER_MP	36.08	0.00	-36.08	25.48	0.00	-25.48	5.43	3.01	2.42	-59.14
SASAN UMP	0.00	0.00	0.00	27.81	0.00	-27.81	1.67	45.72	-44.05	-71.86
TRN ENERGY	0.00	0.00	0.00	0.00	0.00	0.00	0.85	0.39	0.46	0.46
RKM POWER	270.61	0.00	-270.61	71.00	0.00	-71.00	5.52	5.88	-0.36	-341.97
SKS POWER	149.78	0.00	-149.78	0.33	0.49	0.16	5.66	0.98	4.68	-144.94
BARC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.38	-3.38	-3.38
KAPP 3&4	0.00	0.00	0.00	0.00	0.00	0.00	13.49	0.00	13.49	13.49
HVDC CHAMPA	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.04	0.32	0.32
MAHINDRA_RUMS	0.00	0.00	0.00	0.00	0.00	0.00	5.67	5.44	0.23	0.23
ARINSUM_RUMS	0.00	0.00	0.00	0.00	0.00	0.00	5.64	5.71	-0.07	-0.07
OSTRO	0.00	0.00	0.00	0.00	0.00	0.00	7.49	8.34	-0.84	-0.84
ACME_RUMS	0.00	0.00	0.00	0.00	0.00	0.00	6.69	5.19	1.51	1.51
RENEW_BHACHAU	0.00	0.00	0.00	0.00	0.00	0.00	9.78	7.80	1.98	1.98
GIWEL_BHUJ	0.00	0.00	0.00	0.00	0.00	0.00	9.58	15.62	-6.03	-6.03
INOX_BHUJ	0.00	0.00	0.00	0.00	0.00	0.00	3.97	7.23	-3.26	-3.26
AGEMPL_BHUJ	0.00	0.00	0.00	0.00	0.00	0.00	11.03	10.40	0.63	0.63
REGL	353.81	0.00	-353.81	0.00	0.00	0.00	0.00	0.00	0.00	-353.81
RPREL	834.17	0.00	-834.17	4.21	0.00	-4.21	15.46	1.99	13.46	-824.92
AMPS Hazira	0.00	135.90	135.90	0.00	35.32	35.32	22.60	23.34	-0.74	170.48
HVDC RAIGARH	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.05	0.02	0.02
RGPPL_IR	0.00	0.00	0.00	1.51	0.00	-1.51	0.00	0.00	0.00	-1.51
RGPPL_Others	0.00	0.00	0.00	0.20	0.00	-0.20	0.00	0.00	0.00	-0.20
ALFANAR_BHUJ	0.00	0.00	0.00	0.00	0.00	0.00	5.28	7.97	-2.70	-2.70
RENEW_BHUJ	0.00	0.00	0.00	0.00	0.00	0.00	8.75	7.55	1.19	1.19
NTPC STNS-SR	0.00	0.00	0.00	112.61	0.00	-112.61	30.87	25.11	5.76	-106.85
LANKO KONDAPALI	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.59	0.59
SIMHAPURI	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.00	0.44	0.44
MEENAKSHI	71.35	0.00	-71.35	0.00	0.00	0.00	1.51	0.42	1.09	-70.26
COASTGEN	0.00	0.00	0.00	0.00	0.00	0.00	4.16	0.46	3.70	3.70
THERMAL POWERTE	3.54	0.00	-3.54	0.00	0.00	0.00	18.14	1.60	16.54	13.00
IL&FS	0.00	0.00	0.00	3.33	0.00	-3.33	3.57	0.28	3.30	-0.03
NLC	0.00	0.00	0.00	194.00	0.00	-194.00	26.31	30.12	-3.80	-197.81
SEMBCORP	268.27	0.00	-268.27	269.50	0.00	-269.50	7.80	2.99	4.81	-532.97
NETCL VALLUR	0.00	0.00	0.00	0.00	0.00	0.00	13.59	1.86	11.73	11.73
NTPL	0.00	0.00	0.00	0.00	0.00	0.00	2.96	2.42	0.54	0.54
AHSP_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	1.03	1.00	0.03	0.03
AKSP_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.02	-0.03	-0.03
ABSP_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	1.05	1.05	-0.01	-0.01
AZURE_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	1.11	0.66	0.45	0.45
TATA_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	1.88	2.05	-0.18	-0.18
FRV_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	1.05	0.85	0.20	0.20
NTPC_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	4.14	2.76	1.38	1.38

GIWEL_TCN	0.00	0.00	0.00	0.00	0.00	0.00	9.79	9.59	0.19	0.19
MYTRAH_TCN	0.00	0.00	0.00	0.00	0.00	0.00	10.35	5.01	5.34	5.34
FRV_NPK	0.00	0.00	0.00	0.00	0.00	0.00	1.05	1.01	0.04	0.04
ORANGE_TCN	0.00	0.00	0.00	0.00	0.00	0.00	8.83	9.59	-0.76	-0.76
BETAM_TCN	0.00	0.00	0.00	0.00	0.00	0.00	8.02	8.07	-0.05	-0.05
SBG_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	4.03	4.25	-0.21	-0.21
SBG_NPK	0.00	0.00	0.00	0.00	0.00	0.00	5.12	5.65	-0.53	-0.53
FORTUM1_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	1.73	1.69	0.05	0.05
PARAM_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	2.62	3.99	-1.37	-1.37
YARROW_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.95	0.06	0.06
TATA_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	9.40	6.08	3.33	3.33
RENEW_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	1.44	0.81	0.63	0.63
AKS_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	1.07	0.79	0.28	0.28
ARS_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.99	-0.11	-0.11
AVAADA1_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	2.57	2.98	-0.41	-0.41
ADY1_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.84	1.07	-0.22	-0.22
ADY2_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.83	1.08	-0.25	-0.25
ADY13_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.74	1.03	-0.29	-0.29
ADY3_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.85	1.12	-0.27	-0.27
ADY6_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.80	1.16	-0.36	-0.36
ADY10_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.74	1.13	-0.39	-0.39
AZURE_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	1.34	2.21	-0.87	-0.87
FORTUM2_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	3.23	4.11	-0.87	-0.87
AVAADA2_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	2.99	2.92	0.07	0.07
KREDL_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.92	0.74	0.18	0.18
AYANA_NPKUNTA	0.00	0.00	0.00	0.00	0.00	0.00	4.30	6.74	-2.44	-2.44
SPRNG_NPKUNTA	0.00	0.00	0.00	0.00	0.00	0.00	4.27	5.04	-0.78	-0.78
SPRING_PUGALUR	0.00	0.00	0.00	0.00	0.00	0.00	7.10	10.28	-3.18	-3.18
NTPC STNS-ER	0.00	0.00	0.00	1.93	0.00	-1.93	66.64	31.52	35.12	33.19
MAITHON POWER L	0.00	0.00	0.00	0.00	0.00	0.00	7.52	4.53	2.99	2.99
NPGC	0.00	0.00	0.00	0.00	0.00	0.00	9.54	3.20	6.35	6.35
ADHUNIK POWER L	138.75	0.00	-138.75	12.35	0.00	-12.35	3.70	2.81	0.90	-150.21
CHUZACHEN HEP	0.00	0.00	0.00	12.05	0.00	-12.05	0.41	0.48	-0.07	-12.12
RANGIT HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.98	0.65	0.33	0.33
GMR KAMALANGA	0.00	0.00	0.00	28.30	0.00	-28.30	5.67	9.14	-3.47	-31.77
JITPL	448.66	0.00	-448.66	34.79	0.00	-34.79	3.25	2.92	0.33	-483.12
TEESTA HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.16	3.38	-3.22	-3.22
DAGACHU	91.87	0.00	-91.87	0.00	0.00	0.00	6.77	0.00	6.77	-85.10
JORETHANG	8.82	0.00	-8.82	66.20	1.24	-64.96	1.74	0.04	1.70	-72.08
NEPAL(NVVN)	0.00	0.00	0.00	0.00	72.23	72.23	15.23	2.88	12.35	84.58
BANGLADESH	0.00	71.35	71.35	0.00	0.00	0.00	1.36	2.35	-0.99	70.36
HVDC PUS	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.22	0.22
TEESTA STG3	586.70	0.00	-586.70	141.57	0.00	-141.57	5.29	0.94	4.35	-723.91
DIKCHU HEP	47.27	0.00	-47.27	28.44	0.00	-28.44	0.34	1.40	-1.06	-76.77
HVDC ALPD	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.09	-0.02	-0.02
TASHIDENG HEP	9.72	0.00	-9.72	67.35	1.48	-65.87	2.55	1.77	0.78	-74.81
BRBCL,NABINAGAR	0.00	0.00	0.00	0.00	0.00	0.00	10.24	5.67	4.57	4.57
MTPS II	0.00	0.00	0.00	0.00	0.00	0.00	3.71	3.76	-0.05	-0.05
TALA HEP	0.00	0.00	0.00	0.00	0.00	0.00	117.41	8.98	108.43	108.43
CHUKHA HEP	0.00	0.00	0.00	0.00	0.00	0.00	25.72	50.52	-24.80	-24.80
KURICHU HEP	0.00	0.00	0.00	0.00	0.00	0.00	1.46	6.55	-5.09	-5.09
MANGDECHU HEP	0.00	0.00	0.00	0.00	0.00	0.00	8.57	9.39	-0.82	-0.82
RONGNICHU HEP	2.69	0.00	-2.69	0.00	0.00	0.00	7.53	0.75	6.78	4.10
NTPC STNS-NER	0.44	0.00	-0.44	18.68	0.00	-18.68	6.83	1.14	5.68	-13.44
NEEPCO STNS	0.00	0.00	0.00	240.80	0.00	-240.80	2.34	11.09	-8.75	-249.55
RANGANADI HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.72	2.11	-1.40	-1.40
DOYANG HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.47	-0.30	-0.30
ONGC PALATANA	7.81	0.00	-7.81	26.35	0.00	-26.35	1.28	1.05	0.23	-33.92
LOKTAK	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.58	-0.20	-0.20
PARE HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.65	-0.55	-0.55

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