

Monthly Report on Short-term Transactions of Electricity in India

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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
ADANIHB_SLR	Adani Hybrid Energy Jaisalmer One Limited (Solar)
ADANI_SLR 4	Adani Solar Energy Four Private Limited
ADANIHB_WIND	Adani Hybrid Energy Jaisalmer One Limited (Wind)
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
AHEJOL_S_FTG2	Adani Hybrid Energy Jaisalmer One Limited (SOLAR)
AHEJOL_W_FTG2	Adani Hybrid Energy Jaisalmer One Limited (WIND)
AHEJ2L_SOLAR	Adani Hybrid Energy Jaisalmer Two Limited (Solar)
AHEJ3L_SOLAR	Adani Hybrid Energy Jaisalmer Three Limited (Solar)
AHEJ4L_SOLAR	Adani Hybrid Energy Jaisalmer Four Limited-Hybrid Solar
AHEJ4L_WIND	Adani Hybrid Energy Jaisalmer Four Limited-Hybrid Wind
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
AVADARJHN_SLR	Avaada Rjhn Private Limited_Solar
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	Chhukha Hydroelectric Project, Bhutan

CHUZACHEN HEP	ChuzachenHydro Electric Power Project
CLEAN_SLR	Clean Solar Power Pvt. Ltd
CLEANSPL_SLR	Clean Solar Jodhpur 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
DD&DNH	Daman and Diu & Dadar Nagar Haveli
DGEN MEGA POWER	DGEN Mega Power Project
DGPCL Bhutan	Druk Green Power Corporation Ltd., Bhutan
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
EDEN_SLR	Eden RE Cite Private limited
EMCO	EMCO Energy Limited
ESPL_RADHANESDA	Electro Solaire Private Limited, Radhanesda
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
GIPCL_RADHANESDA	Gujarat Industries Power Company Ltd, Radhanesda
GIWEL_BHUJ	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-DAM	Green Day Ahead Market
G-TAM	Green Term Ahead Market
HPX	Hindustan Power Exchange Limited
HVDC ALPD	Alipurduar High Voltage Direct Current Link
HVDC CHAMPA	Champa-Kurukshetra High Voltage Direct Current Link
HVDC PUS	PasauliHigh 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_BHUJ	INOX Wind Limited, Bhuj, Gujarat
J&K	Jammu & Kashmir
JAYPEE NIGRIE	Jaypee Nigrie Super Thermal Power Project
JHABUA POWER MP	Jhabua Thermal Power Project
JINDAL POWER	Jindal Power Limited
JINDAL STAGE-II	Jindal Power Ltd Stage II
JITPL	Jindal India Thermal Power Ltd.
JORETHANG	Jorethang Loop Hydroelectric Power Project
JSW_RENEW_2	JSW Renew Energy Two Limited
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	LancoAmarkantak Power Private Limited
LANKO BUDHIL	LancoBudhil Hydro Power Private Limited
LANKOKONDAPALLY	Lanco Kondapally Power Private Limited
LOKTAK	Loktak Power Project
MAHINDRA_RUMS	Mahindra Rewa Ultra Mega Solar Project
MAHOBA_SLR	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
NCR ALLAHABAD	North Central Railway, Allahabad
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
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_BKN	Renew Solar Bikaner
RENEWJH_SLR	Renew Solar Energy (Jharkhand Three) Private Limited
RENEWURJA_SLR	ReNew Solar Urja Private Limited
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
RSTPS_FSPP	NTPC Ramagundam STPS- Floating Solar PV Project
RTC	Round The Clock
RTM	Real Time Market
SasanUMPP	Sasan Ultra Mega Power Project
SB_SLR	Soft Bank Solar
SB6_POKARAN	SB Energy Six Private 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
SBSR_SLR	SBSR Power Cleantech Eleven Private Limited
SEMBCORP	Sembcorp Gayatri Power Ltd
SIMHAPURI	Simhapuri Energy Private Limited
SKS Power	SKS Power Generation Chhattisgarh Limited
SESPL	Srijan Energy Systems Pvt. Ltd.
SINGOLI BHATWARI HEP	Singoli-Bhatwari Hydroelectric Project, Uttarakhand
SKRPL	Sitac Kabini Renewables Pvt. 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
THAR1_SLR	Thar Surya Ravi One Pvt Ltd
THERMAL POWERTECH	Thermal Powertech Corporation India Limited
TPREL_RADHANESDA	Tata Power Renewable Energy Limited, Radhanesda
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), Power Exchange India Ltd (PXIL) and Hindustan Power Exchange Ltd (HPX)), 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 analyse 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 **December 2022** is presented in the following sections.

2. Volume of Short-term Transactions of Electricity

2.1. During December 2022, total electricity generation, excluding generation from renewable and captive power plants in India was 115698.53 MU (Table-1). Of the total electricity generation, 13.37% was transacted through short-term, comprising of 6.03% through power exchanges {Day Ahead Market (DAM) (including G-DAM) and Real Time Market (RTM)}, followed by 5.81% through bilateral (through traders and term-ahead contracts on power exchanges, and directly between distribution companies) and 1.52% through DSM (Table-1 & Figure-1).

2.2. Of the total short-term transactions (15463.12 MU), 45.13% was transacted through power exchanges {DAM (including G-DAM) and RTM}, followed by 43.50% through bilateral (23.43% through traders and term-ahead contracts on power exchanges, and 20.06% directly between distribution companies) and 11.37% through DSM (Table-1 & Figure-2). Daily volume of short-term transactions is shown in Table-26 & Figure-4.

2.3. Of the total volume of electricity transacted through power exchanges, 59.27% of the volume was transacted in DAM (including G-DAM), followed by 20.70% in Term Ahead Market (TAM) (including G-TAM) and 20.03% 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 48 trading licensees as of December 2022. Of which, 27 trading licensees were engaged in short-term trading. The top 5 trading licensees, namely PTC India Ltd., NTPC Vidyut Vyapar Nigam Ltd., Adani Enterprises Ltd., Tata Power Trading Company (P) Ltd. and Manikaran Power Ltd. had a share of 80.47% in the total volume of electricity traded by all the licensees.

2.5. Herfindahl-Hirschman Index (HHI), a commonly accepted index 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 0.1954 for the month of December 2022, which indicates moderate concentration of market power (Table-2).

2.6. The volume of electricity transacted in the DAM of IEX was 4977.44 MU. No electricity was transacted through DAM of PXIL and HPX. The volume of total buy bids and sell bids was 8320.83 MU and 8881.91 MU respectively in IEX, while the same was 10.36 MU and 50.53 MU respectively in PXIL. No bids were received in HPX.

2.7. Of the total volume of electricity transacted in the DAM of IEX, volume sold by the neighboring countries of India was 23.25 MU and the volume purchased was 78.43 MU, under the Cross Border Trade of electricity through power exchange (Table-31). No Cross Border transaction of electricity was undertaken through PXIL and HPX.

2.8. The volume of electricity transacted in the G-DAM of IEX was 237.98 MU, while no electricity was transacted in the G-DAM of PXIL and HPX. The volume of total buy bids and

sell bids was 1506.59 MU and 304.17 MU respectively in IEX, while no bids were received in PXIL and HPX.

2.9. The volume of electricity transacted in the RTM of IEX was 1763.05 MU, while no electricity was transacted in the RTM of PXIL and HPX. The volume of total buy bids and sell bids was 3033.11 MU and 3102.37 MU respectively in IEX. The volume of total sell bids was 0.37 MU in PXIL, while no buy bids were received. No bids were received in HPX. The variation in the volume of buy bids and sell bids placed through power exchanges shows variation in the demand and supply position.

2.10. The volume of electricity transacted in the TAM of IEX, PXIL and HPX was 822.48 MU, 545.78 MU and 232.96 MU respectively (Table-8, Table-9 & Table-10). The volume of electricity transacted in the Green Term Ahead Market (G-TAM) of IEX, PXIL and HPX was 136.58 MU, 67.14 MU and 16.69 MU respectively (Table-11, Table-12 & Table-13).

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 ₹2.70/kWh, ₹7.95/kWh and ₹5.58/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 ₹5.86/kWh and ₹3.67/kWh respectively. No electricity was transacted through traders during Peak periods (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 ₹2.00/kWh, ₹12.00/kWh and ₹5.58/kWh respectively (Table-5). The minimum, maximum and weighted average prices for the electricity transacted in the G-DAM of IEX were ₹2.90/kWh, ₹12.00/kWh and ₹5.24/kWh respectively (Table-6). The minimum, maximum and weighted average prices for the electricity transacted in the RTM of IEX were ₹0.50/kWh, ₹12.00/kWh and ₹5.47/kWh respectively (Table-7). The weighted average price of electricity transacted in the TAM of IEX, PXIL and HPX was ₹5.76/kWh, ₹5.61/kWh and ₹7.07/kWh respectively (Table-8, Table-9 and Table-10). The weighted average price of electricity transacted in the G-TAM of IEX, PXIL and HPX was ₹5.49/kWh, ₹5.11/kWh and

₹5.32/kWh respectively (Table-11, Table-12 and Table-13). No electricity was transacted in DAM, G-DAM & RTM of PXIL and in DAM, G-DAM, RTM of HPX.

3.3. **Price of electricity transacted through DSM:** The minimum, maximum and average price of DSM was ₹0.00/kWh, ₹41.38/kWh and ₹7.36/kWh respectively (Table-14).

3.4. The comparison of weighted average prices of electricity transacted through trading licensees, power exchanges & average price of DSM are shown in Figure-6. The daily prices of electricity transacted through power exchanges & DSM and their comparison are shown in Table-28(a), (b) & (c) and Figure-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 ₹0.036/kWh.

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

5.1. Of the total bilateral transactions, top 5 regional entities/states sold 43.25% of the volume. These were Punjab, Uttar Pradesh, Raipur Energen Limited, Jindal Power Ltd Stage II and Delhi (Table-15). Top 5 regional entities/states purchased 59.54% of the volume, and these were Madhya Pradesh, Maharashtra, Rajasthan, Gujarat and Himachal Pradesh (Table-16).

5.2. Of the total DAM transactions at power exchanges, top 5 regional entities/states sold 56.49% of the volume, and these were Uttar Pradesh, Bihar, West Bengal, Chhattisgarh and Jaypee Nigrie Super Thermal Power Project (Table-17). Top 5 regional entities/states purchased 59.73% of the volume, and these were Gujarat, Andhra Pradesh, Rajasthan, Maharashtra and Jammu & Kashmir (Table-18).

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.

5.3. Of the total G-DAM transactions at power exchanges, top 5 regional entities/states sold 89.61% of the volume, and these were Karnataka, Andhra Pradesh, Jammu & Kashmir, Adani Wind Energy and NTPC Stations (Southern Region) (Table-19). Top 5 regional entities/states purchased 59.97% of the volume, and these were Maharashtra, Damodar Valley Corporation, Daman and Diu & Dadar Nagar Haveli, Delhi and Gujarat (Table-20).

5.4. Of the total RTM transactions at power exchanges, top 5 regional entities/states sold 52.47% of the volume, and these were Bihar, West Bengal, Uttar Pradesh, Madhya Pradesh and Odisha (Table-21). Top 5 regional entities/states purchased 58.16% of the volume, and these were Rajasthan, Telangana, Maharashtra, Jammu & Kashmir and Gujarat (Table-22).

5.5. Of the total under drawal in December 2022, top 5 regional entities/states under drew 27.76% of the volume, and these were Gujarat, Madhya Pradesh, Tamil Nadu, Uttar Pradesh and Jammu & Kashmir (Table-23). Top 5 regional entities/states over drew 22.89% of the total over drawal volume, and these were NTPC Stations (Northern Region), NTPC Stations (Western Region), Karnataka, Uttar Pradesh and Maharashtra (Table-24).

5.6. 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-25 & 29. Top 5 electricity selling regional entities/states were Uttar Pradesh, Bihar, West Bengal, Raipur Energen Limited and Punjab. Top 5 electricity purchasing regional entities/states were Rajasthan, Gujarat, Maharashtra, Madhya Pradesh and Andhra Pradesh.

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 process assumes that there is no congestion in the inter-State transmission system between different regions. However, in reality, the system operator (NLDC) in coordination with RLDCs limits

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

the flow (due to congestion) in the inter-State transmission system. In such a situation, power exchanges adopt a mechanism called “Market Splitting”³.

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 December 2022, no congestion was experienced in any of the power exchanges (Table-26).

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. The categorization of RECs has been dispensed with, on introduction of the concept of multiplier under the CERC (Terms and Conditions for Renewable Energy Certificates for Renewable Energy Generation) Regulations, 2022, brought into effect from 05.12.2022. Accordingly, the power exchanges deactivated the Solar and Non-Solar REC contract for trading w.e.f. December 2022. A new contract named “REC” has been made available for trading.

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.

7.4. The details of REC transactions for the month of December 2022 are shown in Table-30. The market clearing volume of RECs transacted on IEX, PXIL and HPX were 487356, 93993 and 85805 respectively. The weighted average market clearing price of these RECs was ₹1000/MWh in IEX, ₹1000/MWh in PXIL and ₹1000/MWh in HPX.

7.5. The gap between the volume of buy and sell bids of RECs placed through power exchanges shows the variation in demand for the RECs. The ratio of buy bids to sell bids was 0.32, 0.24 and 0.94 in IEX, PXIL and HPX respectively.

8. Inferences:

- a) The percentage of short-term transactions of electricity to total electricity generation was 13.37%.
- b) Of the total short-term transactions (15463.12 MU), 45.13% was transacted through power exchanges {DAM (including G-DAM) and RTM}, followed by 43.50% through bilateral (23.43% through traders and term-ahead contracts on power exchanges, and 20.06% directly between distribution companies) and 11.37% through DSM.
- c) Of the total volume of electricity transacted through power exchanges, 59.27% of the volume was transacted in DAM (including G-DAM), followed by 20.70% in Term Ahead Market (TAM) (including G-TAM) and 20.03% in RTM
- d) Top 5 trading licensees had a share of 80.47% in the total volume traded by all the trading licensees.
- e) The Herfindahl Hirschman Index computed for the volume of electricity traded by trading licensees was 0.1954, indicating moderate concentration of market power.
- f) The weighted average sale price of electricity transacted through trading licensees was ₹5.58/kWh.
- g) The weighted average price of electricity transacted in DAM of IEX was ₹5.58/kWh, while no electricity was transacted in DAM of PXIL and HPX. The weighted average price of electricity transacted in G-DAM of IEX was ₹5.24/kWh, while no electricity was transacted in G-DAM of PXIL and HPX. The weighted average price of electricity

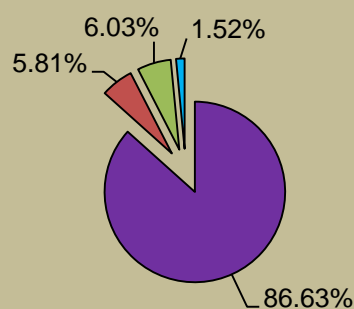
transacted in RTM of IEX was ₹5.47/kWh. No electricity was transacted in the RTM of PXIL and HPX.

- h) The weighted average price of electricity transacted in the TAM of IEX, PXIL and HPX was ₹5.76/kWh, ₹5.61/kWh and ₹7.07/kWh respectively. The weighted average price of electricity transacted in the G-TAM of IEX, PXIL and HPX was ₹5.49/kWh, ₹5.11/kWh and ₹5.32/kWh respectively.
- i) The average price of electricity transacted through DSM was ₹7.36/kWh.
- j) The weighted average trading margin charged by the trading licensees for bilateral transactions was ₹0.036/kWh, which was in line with the Trading Licence Regulations 2020.
- k) Top 5 electricity selling regional entities/states were Uttar Pradesh, Bihar, West Bengal, Raipur Energen Limited and Punjab. Top 5 electricity purchasing regional entities/states were Rajasthan, Gujarat, Maharashtra, Madhya Pradesh and Andhra Pradesh.
- l) During the month of December 2022, no congestion was experienced in any of the power exchanges.
- m) The market clearing volume of RECs transacted on IEX, PXIL and HPX were 487356, 93993 and 85805 respectively. The weighted average market clearing price of these RECs was ₹1000/MWh in IEX, ₹1000/MWh in PXIL and ₹1000/MWh in HPX.

Table-1: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (ALL INDIA), DECEMBER 2022				
Sr. No	Short-term transactions	Volume (MU)	% to Volume of short-term transactions	% to Total Generation
1	Bilateral	6725.84	43.50	5.81
	(i) Through Traders and PXs	3623.63	23.43	3.13
	(ii) Direct	3102.21	20.06	2.68
2	Through Power Exchanges	6978.47	45.13	6.03
	(i) IEX			
	(a) DAM	4977.44	32.19	4.30
	(b) RTM	1763.05	11.40	1.52
	(c) GDAM	237.98	1.54	0.21
	(ii) PXIL			
	(a) DAM	0.00	0.00	0.00
	(b) RTM	0.00	0.00	0.00
	(c) GDAM	0.00	0.00	0.00
	(ii) HPX			
	(a) DAM	0.00	0.00	0.00
	(b) RTM	0.00	0.00	0.00
	(c) GDAM	0.00	0.00	0.00
3	Through DSM	1758.81	11.37	1.52
	Total Short-term transactions	15463.12	-	13.37
	Total Generation	115698.53	-	-

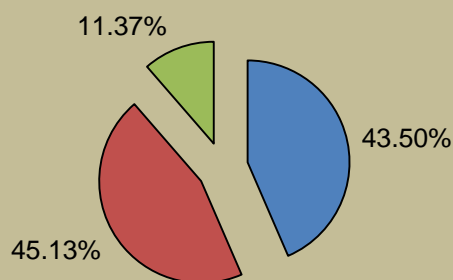
Source: NLDC

Figure-1: Volume of various kinds of Electricity Transactions in Total Electricity Generation, December 2022



■ Long-term ■ Bilateral ■ Through Power Exchanges ■ Through DSM

Figure-2: Volume of Short-term Transactions of Electricity, December 2022



■ Bilateral ■ Power Exchanges ■ DSM

Figure-3: Volume transacted in different markets segments on Power Exchanges, December 2022

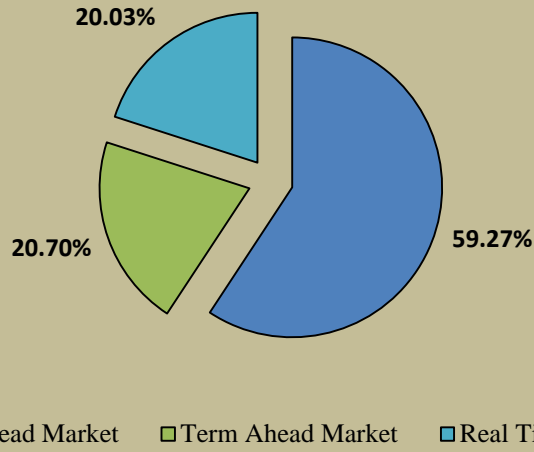


Figure-4: Volume of Short-term Transactions of Electricity, December 2022 (Day-wise)

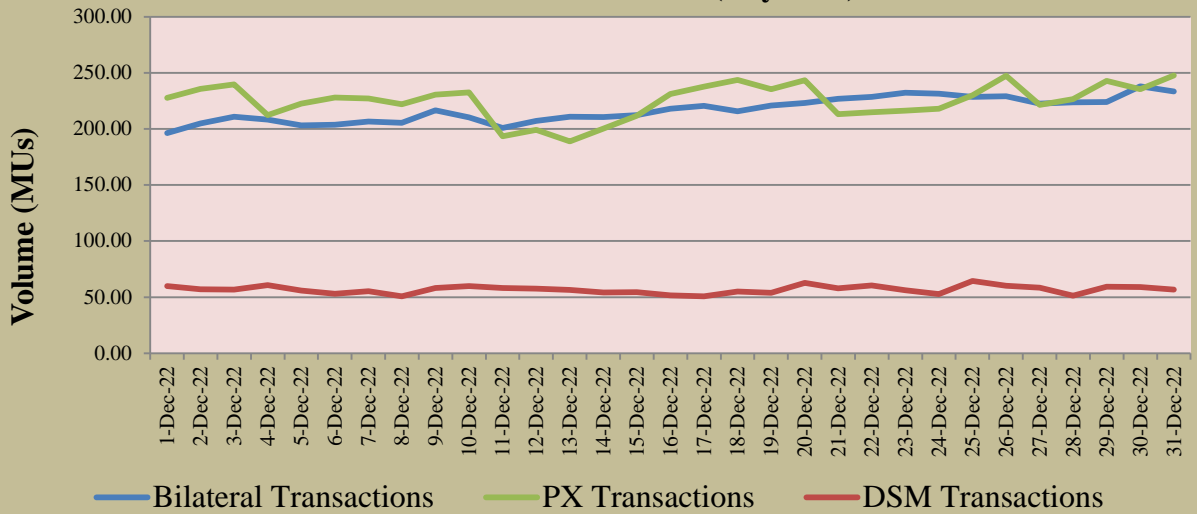


Table-2: PERCENTAGE SHARE OF ELECTRICITY TRANACTED BY TRADING LICENSEES, DECEMBER 2022			
Sr. No	Name of the Trading Licensee	% Share in total Volume transacted by Trading Licensees	Herfindahl-Hirschman Index
1	PTC India Ltd.	37.21	0.1385
2	NTPC Vidyut Vyapar Nigam Ltd.	16.14	0.0260
3	Adani Enterprises Ltd.	10.70	0.0115
4	Tata Power Trading Company (P) Ltd.	10.61	0.0113
5	Manikaran Power Ltd.	5.81	0.0034
6	Arunachal Pradesh Power Corporation (P) Ltd	4.66	0.0022
7	GMR Energy Trading Ltd.	3.13	0.0010
8	Instinct Infra & Power Ltd.	2.17	0.0005
9	Ambitious Power Trading Company Ltd.	2.11	0.0004
10	Kreate Energy (I) Pvt. Ltd.	1.81	0.0003
11	Knowledge Infrastructure Systems (P) Ltd	1.03	0.0001
12	Abja Power Private Limited	0.93	0.0001
13	NTPC Ltd.	0.77	0.0001
14	RPG Power Trading Company Ltd.	0.69	0.0000
15	JSW Power Trading Company Ltd	0.60	0.0000
16	Greenko Energies Pvt Ltd	0.32	0.0000
17	Statkraft Markets Pvt. Ltd.	0.28	0.0000
18	NLC India Ltd.	0.27	0.0000
19	Saranyu Power Trading Private Limited	0.21	0.0000
20	Shubheksha Advisors Pvt. Ltd.	0.16	0.0000
21	Shree Cement Ltd.	0.13	0.0000
22	Instant Venture Pvt. Ltd.	0.12	0.0000
23	Kundan International Pvt. Ltd.	0.11	0.0000
24	Gita Power & Infrastructure Private Limited	0.03	0.0000
25	Altilium Energie Private Limited	0.018	0.0000
26	Phillip Commodities India (P) Ltd.	0.007	0.0000
27	Saini Power Transactor	0.003	0.0000
TOTAL		100.00%	0.1954
Top 5 trading licensees		80.47%	
<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 2022

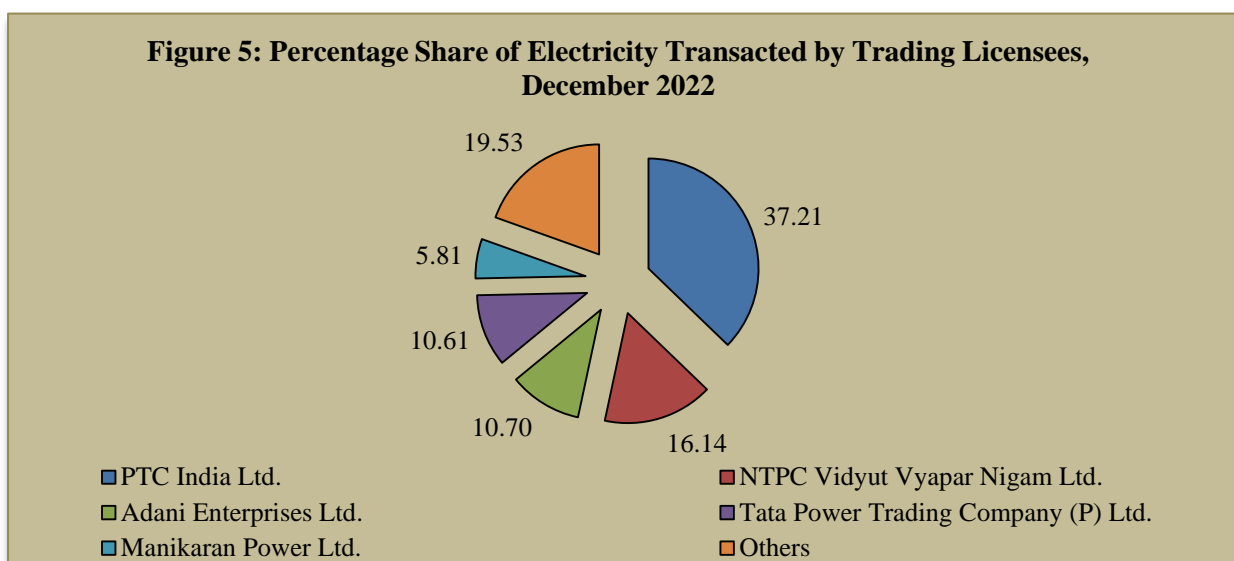


Table-3: PRICE OF ELECTRICITY TRANSACTED THROUGH TRADERS, DECEMBER 2022		
Sr.No	Item	Sale Price of Traders (₹/kWh)
1	Minimum	2.70
2	Maximum	7.95
3	Weighted Average	5.58

Source: Information submitted by trading licensees

Table-4: PRICE OF ELECTRICITY TRANSACTED THROUGH TRADERS (TIME-WISE), DECEMBER 2022		
Sr.No	Period of Trade	Sale Price of Traders (₹/kWh)
1	RTC	5.86
2	PEAK	-
3	OFF PEAK	3.67

Source: Information submitted by trading licensees

Table-5: PRICE OF ELECTRICITY TRANSACTED IN DAY AHEAD MARKET THROUGH POWER EXCHANGES, DECEMBER 2022				
Sr.No	ACP	Price in IEX (₹/kWh)	Price in PXIL (₹/kWh)	Price in HPX (₹/kWh)
1	Minimum	2.00	-	-
2	Maximum	12.00	-	-
3	Weighted Average	5.58	-	-

Source: IEX, PXIL and HPX

Table-6: PRICE OF ELECTRICITY TRANSACTED IN GREEN DAY AHEAD MARKET THROUGH POWER EXCHANGES, DECEMBER 2022				
Sr.No	ACP	Price in IEX (₹/kWh)	Price in PXIL (₹/kWh)	Price in HPX (₹/kWh)
1	Minimum	2.90	-	-
2	Maximum	12.00	-	-
3	Weighted Average	5.24	-	-

Source: IEX, PXIL and HPX

Table-7: PRICE OF ELECTRICITY TRANSACTED IN REAL TIME MARKET THROUGH POWER EXCHANGES, DECEMBER 2022				
Sr.No	ACP	Price in IEX (₹/kWh)	Price in PXIL (₹/kWh)	Price in HPX (₹/kWh)
1	Minimum	0.50	-	-
2	Maximum	12.00	-	-
3	Weighted Average	5.47	-	-

Source: IEX, PXIL and HPX

Table-8: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF IEX, DECEMBER 2022			
Sr.No	Term ahead contracts	Actual Scheduled Volume (MU)	Weighted Average Price (₹/kWh)
1	Intra-Day Contracts	0.10	4.00
2	Day Ahead Contingency Contracts	530.80	5.98
3	Daily Contracts	92.38	4.64
4	Weekly Contracts	100.80	4.60
5	Monthly Contracts	98.39	6.84
	Total	822.48	5.76

Note: Trading of Monthly Contracts was introduced on IEX from 20.07.2022 for contracts up to next 3 months

Source: IEX

Table-9: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF PXIL, DECEMBER 2022			
Sr.No	Term ahead contracts	Actual Scheduled Volume (MU)	Weighted Average Price (₹/kWh)
1	Intra-Day Contracts	0.73	7.52
2	Day Ahead Contingency Contracts	263.32	6.53
3	Daily Contracts	245.74	4.76
4	Weekly Contracts	36.00	4.60
	Total	545.78	5.61

Source: PXIL

Table-10: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF HPX, DECEMBER 2022			
Sr.No	Term ahead contracts	Actual Scheduled Volume (MU)	Weighted Average Price (₹/kWh)
1	Intra-Day Contracts	0.56	6.23
2	Day Ahead Contingency Contracts	186.67	7.67
3	Daily Contracts	9.60	4.55
4	Weekly Contracts	36.12	4.65
	Total	232.96	7.07

Source: HPX

Table-11: VOLUME AND PRICE OF ELECTRICITY IN GREEN TERM AHEAD MARKET OF IEX, DECEMBER 2022			
Sr. No	Green Term ahead contracts	Actual Scheduled Volume (MU)	Weighted Average Price (₹/kWh)
1	Day Ahead Contingency Contracts	136.58	5.49
	Total	136.58	5.49

Source: IEX

Table-12: VOLUME AND PRICE OF ELECTRICITY IN GREEN TERM AHEAD MARKET OF PXIL, DECEMBER 2022			
Sr. No	Green Term ahead contracts	Actual Scheduled Volume (MU)	Weighted Average Price (₹/kWh)
1	Day Ahead Contingency Contracts	67.14	5.11
	Total	67.14	5.11

Source: PXIL

Table-13: VOLUME AND PRICE OF ELECTRICITY IN GREEN TERM AHEAD MARKET OF HPX, DECEMBER 2022			
Sr. No	Green Term ahead contracts	Actual Scheduled Volume (MU)	Weighted Average Price (₹/kWh)
1	Day Ahead Contingency Contracts	16.69	5.32
	Total	16.69	5.32

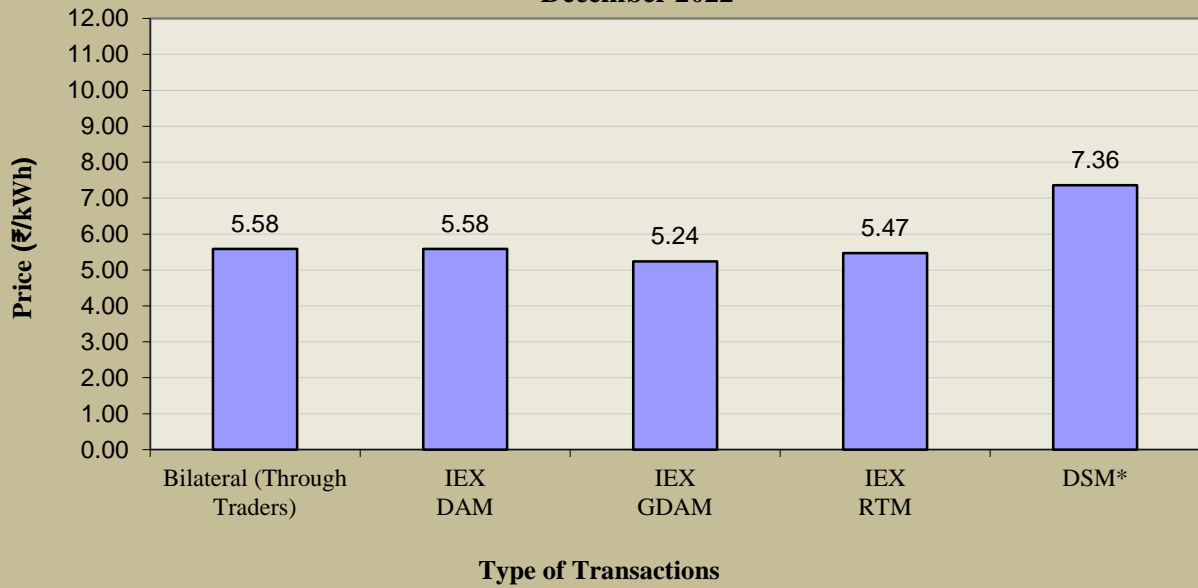
Source: HPX

Table-14: PRICE OF ELECTRICITY TRANSACTED THROUGH DSM, DECEMBER 2022		
Sr. No	Item	Price in All India Grid (₹/kWh)
1	Minimum	0.00
2	Maximum	41.38
3	Average	7.36

Source: NLDC

Note: The CERC DSM Regulations 2022 came into effect from 05.12.2022, wherein normal rate of charges for deviation for a time block is equal to the highest of the [weighted average Area Clearing Price (ACP) of the Day Ahead Market segments of all the Power Exchanges; or the weighted average ACP of the Real Time Market segments of all the Power Exchanges; or the Weighted Average Ancillary Service Charge of all the regions]. Thereafter a ceiling of Rs. 12/kWh was imposed by CERC from 28.12.2022

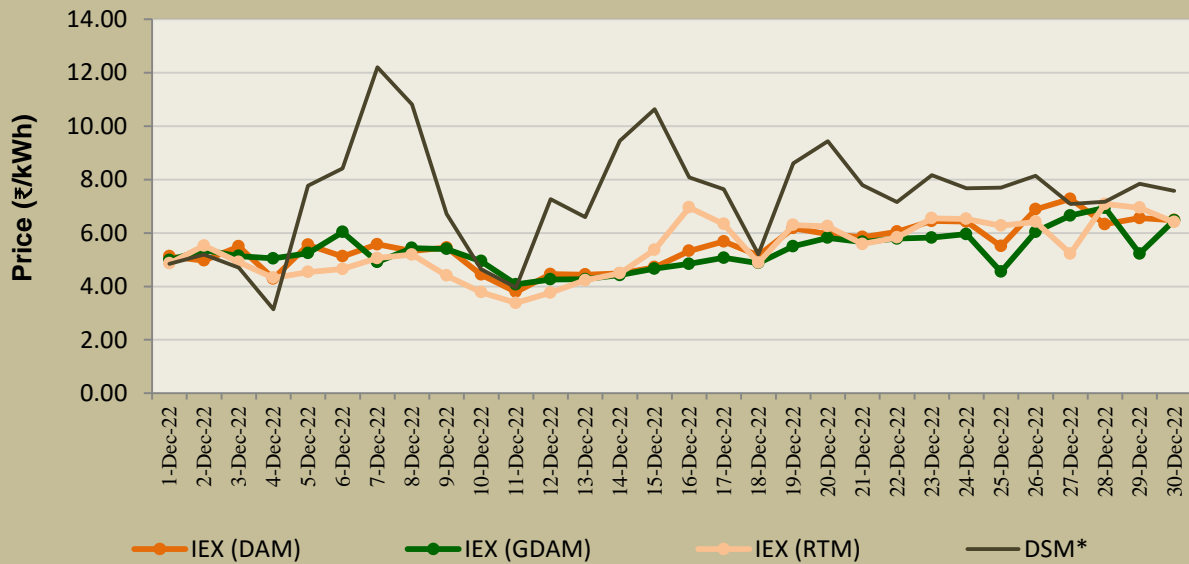
Figure-6: Weighted Average Price of Short-term Transactions of Electricity, December 2022



Note: No electricity was transacted in DAM, G-DAM & RTM of PXIL and in DAM, G-DAM & RTM of HPX during December

** Simple average price of DSM of the month*

Figure-7: Weighted Average Price of Short-term Transactions of Electricity, December 2022 (Day-wise)



Note: No electricity was transacted in DAM, G-DAM & RTM of PXIL and in DAM, G-DAM & RTM of HPX during December 2022.

** Simple average price of DSM for each day of the month*

Table-15: VOLUME OF ELECTRICITY SOLD THROUGH BILATERAL, DECEMBER 2022		
Name of the Entity	Volume of Sale (MUs)	% of Volume
PUNJAB	992.54	14.76
UTTAR PRADESH	714.95	10.63
RPREL	509.92	7.58
JINDAL STAGE-II	384.23	5.71
DELHI	307.11	4.57
SEMBCORP	240.28	3.57
JINDAL POWER	233.02	3.46
TELANGANA	221.67	3.30
ESSAR POWER	217.54	3.23
KARNATAKA	195.96	2.91
JITPL	158.26	2.35
ADHUNIK POWER LTD	157.66	2.34
RKM POWER	150.53	2.24
HARYANA	138.38	2.06
TEESTA STG3	134.99	2.01
SKS POWER	129.89	1.93
WEST BENGAL	129.55	1.93
AHEJ4L_SOLAR	124.85	1.86
CHHATTISGARH	119.53	1.78
MB POWER	115.32	1.71
ODISHA	112.69	1.68
GUJARAT	110.43	1.64
DVC	87.49	1.30
AHEJ4L_WIND	80.42	1.20
KOLYAT_SLR	76.13	1.13
ABC_BHDL2	61.97	0.92
MAHARASHTRA	55.53	0.83
AVAADASN_SLR	51.13	0.76
J & K	48.33	0.72
ACME_HEERGARH	45.01	0.67
TATA_GREEN	40.38	0.60
NEEPCO STATIONS	39.62	0.59
THAR1_SLR	36.63	0.54
MP	35.19	0.52
GMR KAMALANGA	34.27	0.51
HIMACHAL PRADESH	31.98	0.48
TATA_SLR	30.04	0.45
TAMIL NADU	27.33	0.41
RENEW_SR_SLR	23.10	0.34
JAYPEE NIGRIE	21.41	0.32
DAGACHU	21.36	0.32
SINGOLI BHATWARI HEP	17.53	0.26
NTPC STATIONS-NR	17.34	0.26
MEGHALAYA	16.27	0.24
ARUNACHAL PRADESH	14.61	0.22
DB POWER	14.40	0.21
AD HYDRO	14.40	0.21
ONGC PALATANA	14.18	0.21
JORETHANG	13.13	0.20
TASHIDENG HEP	12.83	0.19
BIHAR	11.51	0.17
DIKCHU HEP	10.92	0.16
SORANG HEP	10.72	0.16
KARCHAM WANGTOO	10.41	0.15

NTPC STATIONS-SR	9.00	0.13
SB_SLR	8.86	0.13
UTTARAKHAND	7.56	0.11
ADANIHB_SLR	7.34	0.11
REGL	7.21	0.11
SAINJ HEP	6.90	0.10
TRN ENERGY	6.78	0.10
ANDHRA PRADESH	6.10	0.09
JSW_RENEW_2	6.03	0.09
GOA	5.97	0.09
SHREE CEMENT	5.73	0.09
ADANI_WIND	5.23	0.08
LANKO_AMK	5.04	0.07
BALCO	3.52	0.05
RAJASTHAN	3.32	0.05
SIKKIM	3.28	0.05
OSTRO	1.72	0.03
ACBIL	1.08	0.02
ADANIHB_WIND	0.08	0.001
OSTRO Hiriyur	0.05	0.001
NTPC STATIONS-WR	0.03	0.0004
Total	6725.71	100.00
Volume Sold by top 5 Regional Entities	2908.76	43.25

Table-16: VOLUME OF ELECTRICITY PURCHASED THROUGH BILATERAL, DECEMBER 2022

Name of the Entity	Volume of Purchase (MUs)	% of Volume
MP	1246.81	18.54
MAHARASHTRA	784.70	11.67
RAJASTHAN	738.20	10.98
GUJARAT	698.01	10.38
HIMACHAL PRADESH	536.76	7.98
TELANGANA	444.49	6.61
UTTARAKHAND	318.66	4.74
HARYANA	228.63	3.40
ANDHRA PRADESH	225.76	3.36
AMPS Hazira	159.46	2.37
BANGLADESH	148.80	2.21
UTTAR PRADESH	132.94	1.98
MEGHALAYA	116.79	1.74
DELHI	108.06	1.61
TAMIL NADU	91.12	1.35
J & K	85.97	1.28
ODISHA	78.17	1.16
DD&DNH	72.15	1.07
JHARKHAND	66.65	0.99
BALCO	63.57	0.95
KARNATAKA	56.67	0.84
PUNJAB	49.16	0.73
KERALA	46.46	0.69
CHHATTISGARH	45.30	0.67
GOA	36.85	0.55
WEST BENGAL	35.77	0.53
MANIPUR	34.91	0.52
SIKKIM	32.03	0.48
PONDICHERRY	20.67	0.31
ARUNACHAL PRADESH	11.38	0.17
NAGALAND	7.44	0.11
BIHAR	1.98	0.03
MIZORAM	1.45	0.02
DVC	0.10	0.001
TOTAL	6725.84	100.00
Volume Purchased by top 5 Regional Entities	4004.48	59.54

Table-17: VOLUME OF ELECTRICITY SOLD IN DAY AHEAD MARKET THROUGH POWER EXCHANGES, DECEMBER 2022

Name of the Entity	Volume of Sale (MUs)	% of Volume
UTTAR PRADESH	904.97	18.18
BIHAR	744.19	14.95
WEST BENGAL	685.88	13.78
CHHATTISGARH	275.80	5.54
JAYPEE NIGRIE	200.99	4.04
RPREL	183.44	3.69
JITPL	164.72	3.31
SEMBCORP	155.38	3.12
JINDAL STAGE-II	152.26	3.06
DELHI	128.11	2.57
MP	122.47	2.46
ODISHA	116.98	2.35
MAHARASHTRA	81.42	1.64
DB POWER	77.60	1.56
ACBIL	74.93	1.51
JINDAL POWER	65.61	1.32
ASSAM	62.40	1.25
ESSAR POWER	61.49	1.24
KARNATAKA	57.61	1.16
TELANGANA	47.09	0.95
MB POWER	45.74	0.92
TAMIL NADU	40.73	0.82
RKM POWER	38.12	0.77
GUJARAT	31.25	0.63
ANDHRA PRADESH	30.51	0.61
MARUTI COAL	29.02	0.58
TRIPURA	25.69	0.52
DCPP	24.11	0.48
NEPAL(NVVN)	23.25	0.47
DVC	20.51	0.41
CHANDIGARH	20.01	0.40
GOA	19.05	0.38
HIMACHAL PRADESH	18.51	0.37
KERALA	17.83	0.36
HARYANA	17.66	0.35
SKS POWER	16.40	0.33
NTPC STATIONS-SR	16.32	0.33
TEESTA HEP	15.76	0.32
NEEPCO STATIONS	14.49	0.29
ADHUNIK POWER LTD	14.37	0.29
KAPP 3&4	13.82	0.28
MEGHALAYA	12.52	0.25
EMCO	9.96	0.20
ASEJTL_SLR	9.47	0.19
J & K	9.30	0.19
SAINJ HEP	8.40	0.17
JHABUA POWER_MP	7.55	0.15
RAJASTHAN	6.74	0.14
KARCHAM WANGTOO	5.82	0.12
REGL	5.77	0.12
JHARKHAND	4.82	0.10
NAGALAND	4.52	0.09
ARUNACHAL PRADESH	3.83	0.08

SHREE CEMENT	3.51	0.07
AD HYDRO	3.42	0.07
CGPL	2.91	0.06
NHPC STATIONS	2.70	0.05
MIZORAM	2.32	0.05
NTPC STATIONS-NER	2.11	0.04
OSTRO	1.94	0.04
CHUZACHEN HEP	1.53	0.03
UTTARAKHAND	1.42	0.03
BALCO	1.38	0.03
PUNJAB	1.23	0.02
NTPC STATIONS-ER	1.22	0.02
IL&FS	1.11	0.02
LANCO BUDHIL	0.89	0.02
DIKCHU HEP	0.85	0.02
SIKKIM	0.67	0.01
ADANI_WIND	0.63	0.01
JORETHANG	0.55	0.01
TASHIDENG HEP	0.53	0.01
DHARIWAL POWER	0.52	0.01
ONGC PALATANA	0.48	0.01
OSTRO Hiriyur	0.15	0.003
RENEW_SR_SLR	0.11	0.002
SINGOLI BHATWARI HEP	0.06	0.001
GMR KAMALANGA	0.03	0.001
Total	4977.44	100.00
Volume sold by top 5 Regional Entities	2811.83	56.49

Table-18: VOLUME OF ELECTRICITY PURCHASED IN DAY AHEAD MARKET THROUGH POWER EXCHANGES, DECEMBER 2022		
Name of the Entity	Volume of Purchase (MUs)	% of Volume
GUJARAT	978.08	19.65
ANDHRA PRADESH	612.47	12.30
RAJASTHAN	515.88	10.36
MAHARASHTRA	440.83	8.86
J & K	425.92	8.56
PUNJAB	301.46	6.06
TELANGANA	280.85	5.64
TAMIL NADU	264.42	5.31
UTTAR PRADESH	220.36	4.43
AMPS Hazira	144.52	2.90
UTTARAKHAND	130.72	2.63
DD&DNH	122.67	2.46
HARYANA	106.22	2.13
KARNATAKA	83.67	1.68
WEST BENGAL	57.24	1.15
NEPAL(NVVN)	54.59	1.10
ODISHA	47.15	0.95
ASSAM	43.27	0.87
KERALA	34.25	0.69
NEP	23.83	0.48
DELHI	20.13	0.40
CHHATTISGARH	17.91	0.36
MP	16.86	0.34
GOA	10.75	0.22
JHARKHAND	7.32	0.15
SIKKIM	5.09	0.10
HIMACHAL PRADESH	2.60	0.05
MEGHALAYA	2.56	0.05
CHANDIGARH	2.09	0.04
NCR ALLAHABAD	1.67	0.03
BALCO	1.21	0.02
BIHAR	0.77	0.02
DVC	0.06	0.001
TOTAL	4977.44	100.00
Volume purchased by top 5 Regional Entities	2973.17	59.73

Table-19: VOLUME OF ELECTRICITY SOLD IN GREEN DAY AHEAD MARKET THROUGH POWER EXCHANGES, DECEMBER 2022

Name of the Entity	Volume of Sale (MUs)	% of Volume
KARNATAKA	158.80	66.73
ANDHRA PRADESH	23.21	9.75
J & K	12.77	5.37
ADANI_WIND	9.27	3.90
NTPC STATIONS-SR	9.20	3.87
OSTRO	7.87	3.31
MP	5.83	2.45
TELANGANA	2.53	1.06
SB_SLR	2.01	0.84
RAJASTHAN	1.44	0.61
MAHARASHTRA	1.26	0.53
ADANI_SLR	1.03	0.43
RGPPL_Others	0.90	0.38
UTTAR PRADESH	0.50	0.21
OSTRO Hiriyur	0.28	0.12
HARYANA	0.25	0.10
HVDC CHAMPA	0.23	0.10
AZURE_SLR	0.23	0.10
HIMACHAL PRADESH	0.21	0.09
SIKKIM	0.10	0.04
KREDL_PVGD	0.06	0.02
Total	237.98	100.00
Volume sold by top 5 Regional Entities	213.25	89.61

Table-20: VOLUME OF ELECTRICITY PURCHASED IN GREEN DAY AHEAD MARKET THROUGH POWER EXCHANGES, DECEMBER 2022

Name of the Entity	Volume of Purchase (MUs)	% of Volume
MAHARASHTRA	64.83	27.24
DVC	21.19	8.90
DD&DNH	19.23	8.08
DELHI	18.91	7.95
GUJARAT	18.55	7.80
KARNATAKA	18.23	7.66
TAMIL NADU	15.45	6.49
MP	13.35	5.61
KERALA	8.27	3.48
UTTAR PRADESH	7.60	3.19
HARYANA	7.42	3.12
BALCO	7.30	3.07
PUNJAB	5.87	2.47
ODISHA	4.99	2.10
JHARKHAND	2.23	0.94
MEGHALAYA	1.16	0.49
TELANGANA	1.15	0.48
AMPS Hazira	0.77	0.32
ANDHRA PRADESH	0.62	0.26
NCR ALLAHABAD	0.41	0.17
ASSAM	0.39	0.16
BIHAR	0.05	0.02
TOTAL	237.98	100.00
Volume purchased by top 5 Regional Entities	142.72	59.97

Table-21: VOLUME OF ELECTRICITY SOLD IN REAL TIME MARKET THROUGH POWER EXCHANGES, DECEMBER 2022		
Name of the Entity	Volume of Sale (MUs)	% of Volume
BIHAR	381.76	21.65
WEST BENGAL	170.45	9.67
UTTAR PRADESH	161.99	9.19
MP	120.37	6.83
ODISHA	90.47	5.13
MB POWER	74.77	4.24
CHHATTISGARH	71.12	4.03
DELHI	62.31	3.53
HIMACHAL PRADESH	59.24	3.36
TAMIL NADU	55.68	3.16
KARNATAKA	43.49	2.47
NEEPCO STATIONS	35.40	2.01
TELANGANA	32.12	1.82
RKM POWER	28.30	1.60
MAHARASHTRA	26.61	1.51
J & K	24.60	1.40
KERALA	23.78	1.35
RAJASTHAN	19.76	1.12
SEMBCORP	19.68	1.12
ANDHRA PRADESH	19.20	1.09
TRIPURA	19.01	1.08
JINDAL STAGE-II	14.86	0.84
NLC	13.31	0.76
NTPC STATIONS-WR	13.30	0.75
HARYANA	11.67	0.66
JHABUA POWER_MP	11.56	0.66
ONGC PALATANA	10.85	0.62
RPREL	10.67	0.61
ESSAR POWER	10.48	0.59
NTPC STATIONS-ER	8.91	0.51
DVC	8.81	0.50
ASSAM	8.04	0.46
SIKKIM	8.00	0.45
GUJARAT	7.94	0.45
TEESTA HEP	7.03	0.40
SASAN UMPP	6.28	0.36
BALCO	5.77	0.33
DB POWER	5.26	0.30
JHARKHAND	5.10	0.29
CGPL	5.05	0.29
DD&DNH	4.08	0.23
TRN ENERGY	4.03	0.23
JITPL	3.87	0.22
MANIPUR	3.56	0.20
EMCO	2.98	0.17
UTTARAKHAND	2.72	0.15
MARUTI COAL	2.60	0.15
OSTRO	2.51	0.14
SKS POWER	2.42	0.14
ADHUNIK POWER LTD	2.41	0.14
GOA	2.34	0.13
JINDAL POWER	2.27	0.13
ACBIL	2.08	0.12

NTPC STATIONS-NER	1.87	0.11
SHREE CEMENT	1.38	0.08
DCPP	1.36	0.08
PUNJAB	1.10	0.06
JAYPEE NIGRIE	1.02	0.06
RENEW_SR_SLR	1.01	0.06
GMR KAMALANGA	0.71	0.04
SINGOLI BHATWARI HEP	0.65	0.04
NTPC STATIONS-SR	0.54	0.03
REGL	0.52	0.03
SAINJ HEP	0.43	0.02
KARCHAM WANGTOO	0.31	0.02
IL&FS	0.31	0.02
MEGHALAYA	0.23	0.01
JORETHANG	0.19	0.01
CHANDIGARH	0.18	0.01
NAGALAND	0.15	0.01
ARUNACHAL PRADESH	0.10	0.01
SB_SLR	0.08	0.004
ASEJTL_SLR	0.03	0.002
SORANG HEP	0.03	0.001
SIMHAPURI	0.01	0.001
LANCO BUDHIL	0.01	0.0005
Total	1763.05	100.00
Volume sold by top 5 Regional Entities	925.03	52.47

Table-22: VOLUME OF ELECTRICITY PURCHASED IN REAL TIME MARKET THROUGH POWER EXCHANGES, DECEMBER 2022		
Name of the Entity	Volume of Purchase (MUs)	% of Volume
RAJASTHAN	366.03	20.76
TELANGANA	210.03	11.91
MAHARASHTRA	178.49	10.12
J & K	158.80	9.01
GUJARAT	112.02	6.35
ANDHRA PRADESH	94.05	5.33
PUNJAB	87.44	4.96
TAMIL NADU	82.16	4.66
HARYANA	76.56	4.34
UTTAR PRADESH	64.14	3.64
DELHI	51.27	2.91
WEST BENGAL	43.47	2.47
KARNATAKA	35.88	2.03
ASSAM	31.71	1.80
AMPS Hazira	30.67	1.74
KERALA	24.02	1.36
UTTARAKHAND	23.17	1.31
DD&DNH	14.68	0.83
CHHATTISGARH	11.86	0.67
ODISHA	11.76	0.67
HIMACHAL PRADESH	8.24	0.47
MP	6.80	0.39
JHARKHAND	6.59	0.37
SIKKIM	5.34	0.30
MANIPUR	4.72	0.27
DVC	4.63	0.26
ESSAR POWER	3.50	0.20
TRIPURA	3.24	0.18
MEGHALAYA	3.17	0.18
GOA	2.66	0.15
NCR ALLAHABAD	1.62	0.09
JAYPEE NIGRIE	1.33	0.08
BALCO	0.91	0.05
ARUNACHAL PRADESH	0.78	0.04
CHANDIGARH	0.52	0.03
BIHAR	0.30	0.02
DCPP	0.22	0.01
JINDAL STAGE-II	0.18	0.01
REGL	0.08	0.005
TOTAL	1763.05	100.00
Volume purchased by top 5 Regional Entities	1025.37	58.16

Table-23: VOLUME OF ELECTRICITY UNDER DRAWAL (EXPORTED) THROUGH DSM, DECEMBER 2022		
Name of the Entity	Volume of Under drawal (MUs)	% of Volume
GUJARAT	118.39	6.77
MP	111.43	6.37
TAMIL NADU	102.77	5.88
UTTAR PRADESH	83.15	4.75
J & K	69.80	3.99
MAHARASHTRA	66.07	3.78
TELANGANA	65.05	3.72
HARYANA	64.07	3.66
PUNJAB	64.06	3.66
RAJASTHAN	55.26	3.16
NTPC STATIONS-ER	53.18	3.04
ANDHRA PRADESH	49.69	2.84
NTPC STATIONS-WR	47.93	2.74
KARNATAKA	47.84	2.74
DELHI	45.19	2.58
SASAN UMPP	41.72	2.39
KAPP 3&4	30.03	1.72
NHPC STATIONS	25.99	1.49
JHARKHAND	25.53	1.46
BIHAR	23.93	1.37
NTPC STATIONS-NR	23.32	1.33
ASSAM	22.91	1.31
DVC	22.41	1.28
CHHATTISGARH	21.60	1.23
AMPS Hazira	17.68	1.01
UTTARAKHAND	17.22	0.98
NTPC STATIONS-SR	15.27	0.87
BBMB	13.85	0.79
ODISHA	13.81	0.79
NEEPCO STATIONS	11.10	0.63
PONDICHERRY	10.94	0.63
WEST BENGAL	10.61	0.61
HIMACHAL PRADESH	10.13	0.58
NLC	10.05	0.57
KERALA	9.80	0.56
IGSTPS	9.70	0.55
SBESS	8.40	0.48
MB POWER	7.86	0.45
RKM POWER	7.73	0.44
TRIPURA	7.32	0.42
RAIL	6.75	0.39
TASHIDENG HEP	6.19	0.35
JAYPEE NIGRIE	5.81	0.33
DB POWER	5.81	0.33
GOA	5.72	0.33
ORANGE_TCN	5.39	0.31
TEHRI	5.37	0.31
LANKO_AMK	5.12	0.29
MIZORAM	4.95	0.28
MAITHON POWER LTD	4.91	0.28
GIWEL_BHUI	4.76	0.27
DD&DNH	4.71	0.27
JITPL	4.66	0.27
JINDAL STAGE-II	4.52	0.26
CHANDIGARH	4.36	0.25
MEGHALAYA	4.19	0.24
CLEAN_SLR	3.94	0.23
AZURE43_SLR	3.89	0.22

NPGC	3.70	0.21
AGEMPL BHUJ	3.61	0.21
GIWEL_TCN	3.60	0.21
JINDAL POWER	3.56	0.20
EMCO	3.46	0.20
BETAM_TCN	3.42	0.20
BANGLADESH	3.16	0.18
SBG_NPK	3.08	0.18
RENEW_BHUJ	3.04	0.17
ACBIL	2.98	0.17
NJPC	2.87	0.16
MYTRAH_TCN	2.79	0.16
OSTRO	2.75	0.16
OSTRO Hiriyur	2.71	0.15
AVADARJHN_SLR	2.67	0.15
BARC	2.62	0.15
AVAADASN_SLR	2.58	0.15
AYANA_NPKUNTA	2.50	0.14
RENEW_BHACHAU	2.42	0.14
NAPP	2.38	0.14
CGPL	2.29	0.13
ONGC PALATANA	2.28	0.13
ADHUNIK POWER LTD	2.26	0.13
RPREL	2.24	0.13
AVIKIRAN	2.24	0.13
SIKKIM	2.23	0.13
ASEJTL_SLR	2.20	0.13
ARUNACHAL PRADESH	2.20	0.13
MANIPUR	2.20	0.13
NAGALAND	2.20	0.13
BALCO	2.17	0.12
BRBCL,NABINAGAR	2.15	0.12
RAMPUR HEP	2.12	0.12
KOTESHWAR	2.11	0.12
NTPC STATIONS-NER	2.05	0.12
ALFANAR_BHUJ	1.95	0.11
TATA_PVGD	1.95	0.11
AYANA_RP1	1.95	0.11
NEP	1.91	0.11
SB6_POKARAN	1.91	0.11
KARCHAM WANGTOO	1.86	0.11
SEBICORP	1.86	0.11
ARINSUM_RUMS	1.83	0.10
SKRPL	1.80	0.10
CLEANSR_SLR	1.77	0.10
SPRNG_NPKUNTA	1.73	0.10
GRT_JPL	1.72	0.10
FORTUM2_PVGD	1.70	0.10
KSK MAHANADI	1.70	0.10
ACME_HEERGARH	1.70	0.10
TRN ENERGY	1.70	0.10
NEPAL(NVVN)	1.66	0.09
TEESTA HEP	1.65	0.09
RAP C	1.61	0.09
ACME_RUMS	1.61	0.09
EDEN_SLR	1.60	0.09
ADY1_PVGD	1.60	0.09
NTPC_ANTP	1.57	0.09
MTPS II	1.57	0.09
SKS POWER	1.53	0.09
RENEWURJA_SLR	1.51	0.09
SPRING_PUGALUR	1.48	0.08
NSPCL	1.47	0.08

JHABUA POWER_MP	1.41	0.08
MAHINDRA_RUMS	1.37	0.08
SBG_PVGD	1.35	0.08
NETCL VALLUR	1.34	0.08
AZURE41_SLR	1.29	0.07
THERMAL POWERTECH	1.27	0.07
RENEWSB	1.27	0.07
AZURE34_SLR	1.24	0.07
TEESTA STG3	1.23	0.07
ABC_BHDL2	1.19	0.07
MRPL	1.13	0.06
AZURE_SLR	1.13	0.06
ARERJL_SLR	1.12	0.06
THARI_SLR	1.11	0.06
RSTPS_FSPP	1.11	0.06
ESPL_RADHANESDA	1.09	0.06
RENEW_SR_SLR	1.05	0.06
SBSR_SLR	1.03	0.06
ESSAR POWER	1.00	0.06
RENEWSW_SLR	1.00	0.06
MSUPL_BHDL2	0.95	0.05
PARAM_PVGD	0.94	0.05
RENEWJH_SLR	0.94	0.05
ACME_SLR	0.93	0.05
RENEW_SLR_BKN	0.91	0.05
JSW_RENEW_2	0.88	0.05
NTPL	0.88	0.05
FORTUM1_PVGD	0.84	0.05
COASTGEN	0.82	0.05
GSECL_Radhanesda	0.82	0.05
INOX_BHUI	0.78	0.04
AVAADA1_PVGD	0.77	0.04
POWERICA	0.75	0.04
TATA_GREEN	0.75	0.04
GIPCL_RADHANESDA	0.69	0.04
IL&FS	0.69	0.04
AZURE_MAPLE_SLR	0.67	0.04
AVAADA2_PVGD	0.65	0.04
SESPL	0.64	0.04
ADANI GREEN	0.61	0.03
FRV_NPK	0.60	0.03
AZURE_PVGD	0.60	0.03
RANGANADI HEP	0.58	0.03
TATA_ANTP	0.58	0.03
AZURE_ANTP	0.55	0.03
JORETHANG	0.54	0.03
DIKCHU HEP	0.52	0.03
PARE HEP	0.51	0.03
SORANG HEP	0.49	0.03
RAP B	0.48	0.03
FRV_ANTP	0.45	0.03
SB_SLR	0.45	0.03
SAINJ HEP	0.44	0.03
TATA_SLR	0.44	0.03
RONGNICHU HEP	0.43	0.02
TPREL_RADHANESDA	0.42	0.02
ABSP_ANTP	0.41	0.02
AHSP_ANTP	0.41	0.02
AKSP_ANTP	0.37	0.02
RANGIT HEP	0.37	0.02
AD HYDRO	0.34	0.02
GMR KAMALANGA	0.34	0.02
DHARIWAL POWER	0.32	0.02

RENEW_SLR	0.28	0.02
VINDHYACHAL HVDC	0.28	0.02
RGPPL	0.28	0.02
SINGOLI BHATWARI HEP	0.27	0.02
YARROW_PVGD	0.27	0.02
LANCO BUDHIL	0.26	0.02
ARS_PVGD	0.25	0.01
KREDL_PVGD	0.24	0.01
CHUZACHEN HEP	0.23	0.01
AKS_PVGD	0.21	0.01
DOYANG HEP	0.20	0.01
DCPP	0.17	0.01
HVDC CHAMPA	0.16	0.01
LOKTAK	0.16	0.01
KSMPL_SLR	0.16	0.01
RENEW_PVGD	0.15	0.01
NFF	0.15	0.01
SHREE CEMENT	0.15	0.01
HVDC RAIGARH	0.15	0.01
DAGACHU	0.07	0.004
BHADRAVATHI HVDC	0.04	0.002
HVDC PUS	0.01	0.001
HVDC ALPD	0.01	0.001
Total	1749.05	100.00
Volume Exported by top 5 Regional Entities	485.54	27.76

**Table-24: VOLUME OF ELECTRICITY OVER DRAWAL (IMPORTED) THROUGH DSM,
DECEMBER 2022**

Name of the Entity	Volume of Over drawal (MUs)	% of Volume
NTPC STATIONS-NR	112.60	6.37
NTPC STATIONS-WR	89.06	5.04
KARNATAKA	72.33	4.09
UTTAR PRADESH	68.16	3.85
MAHARASHTRA	62.64	3.54
RAJASTHAN	57.34	3.24
ODISHA	56.33	3.19
NTPC STATIONS-ER	54.81	3.10
GUJARAT	50.44	2.85
NTPC STATIONS-SR	44.52	2.52
WEST BENGAL	43.38	2.45
HARYANA	38.67	2.19
TELANGANA	33.91	1.92
TAMIL NADU	31.28	1.77
ANDHRA PRADESH	28.37	1.60
NLC	28.23	1.60
AGEMPL BHUJ	27.91	1.58
BIHAR	27.32	1.54
AMPS Hazira	25.40	1.44
GIWEL_BHUJ	25.13	1.42
HIMACHAL PRADESH	24.72	1.40
DVC	24.46	1.38
CHHATTISGARH	23.09	1.31
JHARKHAND	22.18	1.25
UTTARAKHAND	21.98	1.24
PUNJAB	21.67	1.23
MP	19.16	1.08
OSTRO	16.93	0.96
IGSTPS	16.49	0.93
RENEW_BHUJ	16.45	0.93
ALFANAR_BHUJ	14.92	0.84
CGPL	13.58	0.77
RENEW_BHACHAU	13.41	0.76
GIWEL_TCN	13.35	0.75
SBESS	11.87	0.67
SPRING_PUGALUR	11.61	0.66
SKRPL	11.25	0.64
MYTRAH_TCN	11.02	0.62
GOA	10.81	0.61
KERALA	10.59	0.60
J & K	10.30	0.58
AVAADASN_SLR	10.09	0.57
OSTRO Hiriyur	9.85	0.56
MAITHON POWER LTD	9.35	0.53
TATA_PVGD	9.01	0.51
BETAM_TCN	8.81	0.50
NEPAL(NVVN)	8.76	0.50
NPGC	8.46	0.48
BRBCL,NABINAGAR	8.34	0.47
AZURE43_SLR	7.24	0.41
INOX_BHUJ	7.20	0.41
BBMB	7.11	0.40
ORANGE_TCN	6.77	0.38
NHPC STATIONS	6.75	0.38
KAPP 3&4	6.75	0.38
ARUNACHAL PRADESH	6.65	0.38
TATA_GREEN	6.61	0.37
NTPL	6.60	0.37
DELHI	6.48	0.37
NETCL VALLUR	6.40	0.36

ADY1_PVGD	6.35	0.36
SPRNG_NPKUNTA	6.18	0.35
AVIKIRAN	5.86	0.33
CHANDIGARH	5.85	0.33
NTPC_ANTP	5.82	0.33
AVADARJHN_SLR	5.68	0.32
RKM POWER	5.62	0.32
THERMAL POWERTECH	5.56	0.31
TATA_SLR	5.22	0.30
ASSAM	5.01	0.28
MB POWER	4.99	0.28
DD&DNH	4.94	0.28
SBG_PVGD	4.86	0.27
BALCO	4.80	0.27
AYANA_NPKUNTA	4.63	0.26
SESPL	4.62	0.26
FORTUM2_PVGD	4.54	0.26
ASEJTL_SLR	4.45	0.25
SB6_POKARAN	4.26	0.24
ESSAR POWER	4.12	0.23
JITPL	4.10	0.23
PONDICHERRY	3.69	0.21
THARI_SLR	3.63	0.21
SEMBCORP	3.57	0.20
AVAADA2_PVGD	3.49	0.20
AYANA_RP1	3.46	0.20
PARAM_PVGD	3.36	0.19
SBG_NPK	3.34	0.19
AVAADA1_PVGD	3.31	0.19
AZURE41_SLR	3.27	0.19
MTPS II	3.11	0.18
GRT_JPL	3.09	0.17
SBSR_SLR	3.07	0.17
SB_SLR	3.03	0.17
TATA_ANTP	3.00	0.17
RPREL	2.99	0.17
NTPC STATIONS-NER	2.85	0.16
ACME_SLR	2.81	0.16
MANIPUR	2.77	0.16
TEHRI	2.75	0.16
ABC_BHDL2	2.74	0.15
RAP C	2.74	0.15
MEGHALAYA	2.70	0.15
ARERJL_SLR	2.68	0.15
SIKKIM	2.57	0.15
POWERICA	2.56	0.14
COASTGEN	2.56	0.14
NEP	2.55	0.14
RENEW_SLR_BKN	2.45	0.14
ACME_HEERGARH	2.45	0.14
AZURE_MAPLE_SLR	2.40	0.14
IL&FS	2.36	0.13
TRIPURA	2.33	0.13
ACME_RUMS	2.26	0.13
EDEN_SLR	2.26	0.13
KSK MAHANADI	2.23	0.13
RAIL	2.21	0.13
MAHINDRA_RUMS	2.17	0.12
CLEAN_SLR	2.17	0.12
KREDL_PVGD	2.16	0.12
ARINSUM_RUMS	2.13	0.12
JSW_RENEW_2	2.12	0.12
CLEANSR_SLR	2.03	0.12

FORTUMI_PVGD	2.03	0.11
RENEWSB	2.02	0.11
JHABUA POWER_MP	2.02	0.11
LANKO_AMK	1.99	0.11
GMR KAMALANGA	1.98	0.11
RAP B	1.97	0.11
BANGLADESH	1.97	0.11
RENEWJH_SLR	1.95	0.11
RENEWSW_SLR	1.93	0.11
AZURE_PVGD	1.92	0.11
RENEW_SR_SLR	1.89	0.11
RANGANADI HEP	1.86	0.11
RENEWURJA_SLR	1.85	0.10
MRPL	1.79	0.10
JINDAL STAGE-II	1.77	0.10
AZURE_SLR	1.77	0.10
ADHUNIK POWER LTD	1.75	0.10
MSUPL_BHDL2	1.72	0.10
JINDAL POWER	1.63	0.09
SIMHAPURI	1.59	0.09
NAPP	1.57	0.09
ABSP_ANTP	1.52	0.09
AKSP_ANTP	1.51	0.09
AHSP_ANTP	1.51	0.09
ESPL_RADHANESDA	1.38	0.08
RENEW_PVGD	1.38	0.08
TASHIDENG HEP	1.38	0.08
KARCHAM WANGTOO	1.28	0.07
NSPCL	1.19	0.07
YARROW_PVGD	1.18	0.07
RGPPL	1.17	0.07
FRV_ANTP	1.16	0.07
NAGALAND	1.15	0.06
NEEPCO STATIONS	1.13	0.06
AKS_PVGD	1.12	0.06
NJPC	1.10	0.06
ARS_PVGD	1.06	0.06
FRV_NPK	1.05	0.06
DGEN MEGA POWER	1.04	0.06
RSTPS_FSPP	1.02	0.06
AZURE34_SLR	1.00	0.06
DB POWER	0.98	0.06
ONGC PALATANA	0.96	0.05
AZURE_ANTP	0.95	0.05
TPREL_RADHANESDA	0.91	0.05
KSMPL_SLR	0.77	0.04
TRN ENERGY	0.75	0.04
GIPCL_RADHANESDA	0.72	0.04
RENEW_SLR	0.71	0.04
ACBIL	0.67	0.04
SORANG HEP	0.55	0.03
RANGIT HEP	0.55	0.03
SKS POWER	0.50	0.03
MEENAKSHI	0.49	0.03
DCPP	0.47	0.03
JAYPEE NIGRIE	0.47	0.03
JORETHANG	0.46	0.03
KOTESHWAR	0.45	0.03
LANKO KONDAPALLI	0.43	0.02
SHREE CEMENT	0.42	0.02
ADANI GREEN	0.42	0.02
GSECL_Radhanesda	0.39	0.02
MIZORAM	0.38	0.02

TEESTA STG3	0.36	0.02
RAMPUR HEP	0.35	0.02
SAINJ HEP	0.35	0.02
CHUZACHEN HEP	0.31	0.02
EMCO	0.29	0.02
DOYANG HEP	0.27	0.02
DHARIWAL POWER	0.27	0.02
DIKCHU HEP	0.27	0.02
DAGACHU	0.26	0.01
PARE HEP	0.22	0.01
RONGNICHU HEP	0.17	0.01
HVDC ALPD	0.14	0.01
NFF	0.13	0.01
SINGOLI BHATWARI HEP	0.10	0.01
LOKTAK	0.09	0.005
HVDC PUS	0.09	0.005
AD HYDRO	0.09	0.005
HVDC RAIGARH	0.08	0.005
SASAN UMPP	0.08	0.004
LANCO BUDHIL	0.07	0.004
BHADRAVATHI HVDC	0.06	0.003
TEESTA HEP	0.04	0.002
BARC	0.03	0.001
HVDC CHAMPA	0.02	0.001
TOTAL	1768.58	100.00
Volume Imported by top 5 Regional Entities	404.78	22.89

Table-25: TOTAL VOLUME OF NET SHORT-TERM TRANSACTIONS OF ELECTRICITY (REGIONAL ENTITY-WISE), DECEMBER 2022

S. No.	Name of the Entity	Total volume of net short-term transactions of electricity*
1	RAJASTHAN	1590.93
2	GUJARAT	1589.10
3	MAHARASHTRA	1300.60
4	MP	907.69
5	ANDHRA PRADESH	832.56
6	TELANGANA	601.97
7	J & K	516.20
8	UTTARAKHAND	465.62
9	HIMACHAL PRADESH	452.26
10	AMPS Hazira	343.14
11	TAMIL NADU	257.91
12	HARYANA	225.47
13	DD&DNH	224.87
14	BANGLADESH	147.61
15	MEGHALAYA	93.18
16	KERALA	72.16
17	NTPC STATIONS-NR	71.94
18	JHARKHAND	69.51
19	BALCO	64.95
20	NEPAL(NVVN)	38.44
21	MANIPUR	36.65
22	SIKKIM	30.75
23	GOA	28.00
24	NTPC STATIONS-WR	27.79
25	NEP	24.47
26	AGEMPL BHUJ	24.30
27	GIWEL_BHUJ	20.37
28	PONDICHERRY	13.43
29	RENEW_BHUJ	13.41
30	ALFANAR_BHUJ	12.96
31	RENEW_BHACHAU	10.99
32	SPRING_PUGALUR	10.12
33	GIWEL_TCN	9.75
34	SKRPL	9.45
35	MYTRAH_TCN	8.24
36	TATA_PVGD	7.06
37	IGSTPS	6.80
38	OSTRO Hiriyur	6.66
39	INOX_BHUJ	6.42
40	BRBCL,NABINAGAR	6.18
41	NTPL	5.72
42	BETAM_TCN	5.39
43	NETCL VALLUR	5.06
44	NLC	4.86
45	NPGC	4.76
46	ADY1_PVGD	4.76
47	SPRNG_NPKUNTA	4.45
48	MAITHON POWER LTD	4.44
49	THERMAL POWERTECH	4.29
50	NTPC_ANTP	4.25
51	SESPL	3.98
52	NCR ALLAHABAD	3.69
53	AVIKIRAN	3.62
54	SBG_PVGD	3.51
55	SBESS	3.47
56	AZURE43_SLR	3.36
57	CGPL	3.32
58	AVADARJHN_SLR	3.01
59	AVAADA2_PVGD	2.85
60	FORTUM2_PVGD	2.84
61	AVAADA1_PVGD	2.55
62	PARAM_PVGD	2.42

63	TATA_ANTP	2.42
64	SB6_POKARAN	2.35
65	AYANA_NPKUNTA	2.13
66	SBSR_SLR	2.03
67	AZURE41_SLR	1.98
68	ACME_SLR	1.88
69	KREDL_PVGD	1.87
70	POWERICA	1.81
71	COASTGEN	1.74
72	AZURE_MAPLE_SLR	1.73
73	NAGALAND	1.71
74	SIMHAPURI	1.58
75	ARERJL_SLR	1.56
76	RENEW_SLR_BKN	1.55
77	MTPS II	1.54
78	AYANA_RP1	1.51
79	RAP B	1.49
80	ORANGE_TCN	1.38
81	GRT_JPL	1.38
82	AZURE_PVGD	1.32
83	RANGANADI HEP	1.28
84	RENEW_PVGD	1.23
85	FORTUM1_PVGD	1.19
86	AKSP_ANTP	1.14
87	RAP C	1.13
88	ABSP_ANTP	1.11
89	AHSP_ANTP	1.10
90	DGEN MEGA POWER	1.04
91	RENEWJH_SLR	1.01
92	RENEWSW_SLR	0.93
93	AKS_PVGD	0.91
94	YARROW_PVGD	0.91
95	RGPPL	0.89
96	ARS_PVGD	0.82
97	MAHINDRA_RUMS	0.80
98	MSUPL_BHDL2	0.77
99	RENEWSB	0.75
100	FRV_ANTP	0.71
101	EDEN_SLR	0.66
102	MRPL	0.65
103	ACME_RUMS	0.65
104	KSMPL_SLR	0.61
105	KSK MAHANADI	0.52
106	TPREL_RADHANESDA	0.49
107	MEENAKSHI	0.49
108	FRV_NPK	0.46
109	LANKO KONDAPALLI	0.43
110	RENEW_SLR	0.43
111	AZURE_SLR	0.40
112	AZURE_ANTP	0.40
113	RENEWURJA_SLR	0.34
114	ARINSUM_RUMS	0.30
115	ESPL_RADHANESDA	0.30
116	CLEANSPL_SLR	0.26
117	SBG_NPK	0.26
118	IL&FS	0.25
119	RANGIT HEP	0.18
120	OSTRO	0.14
121	HVDC ALPD	0.13
122	DOYANG HEP	0.08
123	HVDC PUS	0.07
124	GIPCL_RADHANESDA	0.02
125	BHADRAVATHI HVDC	0.02
126	NFF	-0.02
127	HVDC RAIGARH	-0.07
128	LOKTAK	-0.07

129	ADANIHB_WIND	-0.08
130	RSTPS_FSPP	-0.09
131	ADANI GREEN	-0.19
132	AZURE34_SLR	-0.24
133	RONGNICHU HEP	-0.26
134	VINDHYACHAL HVDC	-0.28
135	NSPCL	-0.28
136	PARE HEP	-0.29
137	HVDC CHAMPA	-0.38
138	GSECL_Radhanesda	-0.43
139	DHARIWAL POWER	-0.58
140	NAPP	-0.80
141	RGPPL_Others	-0.90
142	ADANI_SLR	-1.03
143	LANCO BUDHIL	-1.09
144	CHUZACHEN HEP	-1.46
145	KOTESHWAR	-1.66
146	RAMPUR HEP	-1.76
147	CLEAN_SLR	-1.77
148	NJPC	-1.78
149	ARUNACHAL PRADESH	-1.93
150	BARC	-2.59
151	TEHRI	-2.62
152	NTPC STATIONS-NER	-3.17
153	RAIL	-4.54
154	JSW_RENEW_2	-4.79
155	MIZORAM	-5.44
156	NTPC STATIONS-SR	-5.81
157	BBMB	-6.74
158	ASEJTL_SLR	-7.26
159	ADANIHB_SLR	-7.34
160	LANKO_AMK	-8.18
161	SB_SLR	-8.37
162	NTPC STATIONS-ER	-8.50
163	SHREE CEMENT	-10.35
164	SORANG HEP	-10.69
165	TRN ENERGY	-11.76
166	DIKCHU HEP	-12.03
167	ASSAM	-12.97
168	REGL	-13.41
169	JORETHANG	-13.95
170	ADANI_WIND	-15.13
171	SAINJ HEP	-15.81
172	CHANDIGARH	-16.10
173	EMCO	-16.11
174	KARCHAM WANGTOO	-17.13
175	AD HYDRO	-18.08
176	TASHIDENG HEP	-18.17
177	SINGOLI BHATWARI HEP	-18.41
178	JHABUA POWER_MP	-18.49
179	DAGACHU	-21.18
180	NHPC STATIONS	-21.93
181	RENEW_SR_SLR	-23.38
182	TEESTA HEP	-24.40
183	DCPP	-24.94
184	TATA_SLR	-25.26
185	ONGC PALATANA	-26.83
186	MARUTI COAL	-31.62
187	GMR KAMALANGA	-33.37
188	THARI_SLR	-34.11
189	TATA_GREEN	-34.52
190	KAPP 3&4	-37.10
191	AVAADASN_SLR	-43.61
192	ACME_HEERGARH	-44.26
193	TRIPURA	-46.45
194	SASAN UMPP	-47.93

195	ABC_BHDL2	-60.42
196	KOLYAT_SLR	-76.13
197	ACBIL	-80.40
198	AHEJ4L_WIND	-80.42
199	DVC	-88.78
200	NEEPCO STATIONS	-99.48
201	DB POWER	-102.09
202	AHEJ4L_SOLAR	-124.85
203	ODISHA	-135.56
204	TEESTA STG3	-135.86
205	SKS POWER	-149.74
206	ADHUNIK POWER LTD	-174.95
207	RKM POWER	-219.05
208	JAYPEE NIGRIE	-227.44
209	KARNATAKA	-236.92
210	MB POWER	-238.70
211	ESSAR POWER	-282.89
212	JINDAL POWER	-302.83
213	JITPL	-327.41
214	DELHI	-337.85
215	CHHATTISGARH	-389.89
216	SEMBICORP	-413.62
217	JINDAL STAGE-II	-553.94
218	PUNJAB	-593.34
219	RPREL	-703.30
220	WEST BENGAL	-816.64
221	BIHAR	-1130.96
222	UTTAR PRADESH	-1372.34
* Total volume of net short-term transactions of electricity includes net of transactions of electricity through bilateral, power exchange and DSM		
(-) indicates sale and (+) indicates purchase		

Table-26: DETAILS OF CONGESTION IN POWER EXCHANGES, DECEMBER 2022

	Details of Congestion	Day Ahead Market			Green Day Ahead Market			Real Time Market		
		IEX	PXIL	HPX	IEX	PXIL	HPX	IEX	PXIL	HPX
A	Unconstrained Cleared Volume (MUs)	4977.44	0.00	0.00	237.98	0.00	0.00	1763.05	0.00	0.00
B	Actual Cleared Volume and hence scheduled (MUs)	4977.44	0.00	0.00	237.98	0.00	0.00	1763.05	0.00	0.00
C	Volume of electricity that could not be cleared and hence not scheduled because of congestion (MUs) *	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D	Volume of electricity that could not be cleared and hence not scheduled because of reasons other than congestion (MUs)	0.00	0.00	0.00	0.00	0.00	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%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
F	Percentage of the time congestion occurred during the month (Number of hours congestion occurred/ Total number of hours in the month)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
G	Congestion occurrence (%) time block wise									
	0.00 - 6.00 hours	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	6.00 - 12.00 hours	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	12.00 - 18.00 hours	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	18.00 - 24.00 hours	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

* This power would have been scheduled had there been no congestion

Source: IEX, PXIL, HPX & NLDC

**Table-27: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY IN INDIA (DAY-WISE) (MUs),
DECEMBER 2022**

Date	Bilateral		Day Ahead Market [#]			Green 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	HPX	IEX	PXIL	HPX	IEX	PXIL	HPX		
1-Dec-22	104.91	91.36	167.14	0.00	0.00	6.75	0.00	0.00	53.94	0.00	0.00	59.75	3666.41
2-Dec-22	110.15	94.79	170.35	0.00	0.00	6.00	0.00	0.00	59.43	0.00	0.00	57.10	3758.22
3-Dec-22	115.38	95.66	180.47	0.00	0.00	6.06	0.00	0.00	53.18	0.00	0.00	56.85	3732.06
4-Dec-22	113.11	95.11	159.13	0.00	0.00	5.85	0.00	0.00	47.25	0.00	0.00	60.70	3541.03
5-Dec-22	108.78	94.28	158.10	0.00	0.00	5.85	0.00	0.00	58.77	0.00	0.00	55.84	3628.40
6-Dec-22	108.54	95.32	160.21	0.00	0.00	6.18	0.00	0.00	61.63	0.00	0.00	53.13	3708.96
7-Dec-22	112.04	94.61	165.92	0.00	0.00	6.49	0.00	0.00	54.76	0.00	0.00	55.39	3743.10
8-Dec-22	111.78	93.63	168.51	0.00	0.00	5.76	0.00	0.00	47.83	0.00	0.00	50.65	3693.60
9-Dec-22	121.60	95.07	171.32	0.00	0.00	5.83	0.00	0.00	53.40	0.00	0.00	58.21	3627.33
10-Dec-22	112.80	97.47	170.95	0.00	0.00	8.71	0.00	0.00	52.97	0.00	0.00	59.81	3500.29
11-Dec-22	101.31	99.56	137.73	0.00	0.00	9.00	0.00	0.00	46.80	0.00	0.00	58.28	3391.09
12-Dec-22	108.63	98.46	134.93	0.00	0.00	11.47	0.00	0.00	52.70	0.00	0.00	57.72	3547.93
13-Dec-22	111.08	99.91	130.07	0.00	0.00	10.89	0.00	0.00	47.94	0.00	0.00	56.50	3569.62
14-Dec-22	112.78	97.81	135.55	0.00	0.00	9.85	0.00	0.00	54.90	0.00	0.00	54.26	3607.29
15-Dec-22	116.04	96.38	146.79	0.00	0.00	8.96	0.00	0.00	56.07	0.00	0.00	54.57	3673.97
16-Dec-22	120.61	97.54	161.47	0.00	0.00	7.69	0.00	0.00	62.11	0.00	0.00	51.63	3751.77
17-Dec-22	121.19	99.41	164.00	0.00	0.00	10.71	0.00	0.00	62.93	0.00	0.00	50.61	3795.02
18-Dec-22	115.16	100.60	174.48	0.00	0.00	8.21	0.00	0.00	61.08	0.00	0.00	55.01	3641.49
19-Dec-22	120.14	100.82	168.16	0.00	0.00	8.35	0.00	0.00	58.91	0.00	0.00	53.98	3787.83
20-Dec-22	121.89	101.29	174.14	0.00	0.00	7.43	0.00	0.00	61.84	0.00	0.00	62.69	3825.15
21-Dec-22	122.47	104.31	155.90	0.00	0.00	7.56	0.00	0.00	49.81	0.00	0.00	57.82	3827.37
22-Dec-22	123.48	105.26	164.18	0.00	0.00	6.74	0.00	0.00	44.02	0.00	0.00	60.44	3851.20
23-Dec-22	128.65	103.67	155.04	0.00	0.00	6.48	0.00	0.00	54.85	0.00	0.00	56.13	3881.44
24-Dec-22	126.11	105.46	159.52	0.00	0.00	7.09	0.00	0.00	51.36	0.00	0.00	52.69	3853.33
25-Dec-22	122.44	106.05	151.78	0.00	0.00	8.96	0.00	0.00	69.33	0.00	0.00	64.34	3718.76
26-Dec-22	120.86	108.22	166.47	0.00	0.00	7.32	0.00	0.00	73.78	0.00	0.00	60.30	3777.48
27-Dec-22	115.25	107.40	147.85	0.00	0.00	6.67	0.00	0.00	67.02	0.00	0.00	58.45	3853.30
28-Dec-22	118.81	104.83	166.13	0.00	0.00	5.92	0.00	0.00	54.61	0.00	0.00	51.22	3924.40
29-Dec-22	120.23	103.87	172.30	0.00	0.00	9.87	0.00	0.00	60.59	0.00	0.00	59.22	3975.84
30-Dec-22	129.93	108.01	156.44	0.00	0.00	6.99	0.00	0.00	72.17	0.00	0.00	58.90	3953.81
31-Dec-22	127.50	106.02	182.43	0.00	0.00	8.33	0.00	0.00	57.08	0.00	0.00	56.65	3891.04
Total	2904.68	2133.41	5083.85	0.00	0.00	288.32	0.00	0.00	1406.84	0.00	0.00	1944.38	108506.84

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-28(a): PRICE OF DAY AHEAD TRANSACTIONS OF ELECTRICITY (DAY-WISE) (₹/kWh),
DECEMBER 2022**

Market Segment	Day ahead market of IEX			Day ahead market of PXIL			Day ahead market of HPX		
Date	Minimum ACP	Maximum ACP	Weighted Average Price*	Minimum ACP	Maximum ACP	Weighted Average Price*	Minimum ACP	Maximum ACP	Weighted Average Price*
1-Dec-22	2.71	9.10	5.13	-	-	-	-	-	-
2-Dec-22	2.59	10.00	4.97	-	-	-	-	-	-
3-Dec-22	2.81	11.00	5.50	-	-	-	-	-	-
4-Dec-22	2.71	8.00	4.29	-	-	-	-	-	-
5-Dec-22	2.75	12.00	5.56	-	-	-	-	-	-
6-Dec-22	2.57	9.20	5.13	-	-	-	-	-	-
7-Dec-22	2.81	10.00	5.58	-	-	-	-	-	-
8-Dec-22	2.81	9.00	5.33	-	-	-	-	-	-
9-Dec-22	2.65	9.50	5.46	-	-	-	-	-	-
10-Dec-22	2.65	7.70	4.44	-	-	-	-	-	-
11-Dec-22	2.50	6.00	3.79	-	-	-	-	-	-
12-Dec-22	2.18	6.52	4.46	-	-	-	-	-	-
13-Dec-22	2.09	7.00	4.44	-	-	-	-	-	-
14-Dec-22	2.00	7.18	4.49	-	-	-	-	-	-
15-Dec-22	2.11	7.81	4.72	-	-	-	-	-	-
16-Dec-22	2.54	8.90	5.33	-	-	-	-	-	-
17-Dec-22	2.62	11.33	5.68	-	-	-	-	-	-
18-Dec-22	2.54	8.00	5.16	-	-	-	-	-	-
19-Dec-22	2.60	12.00	6.18	-	-	-	-	-	-
20-Dec-22	2.77	12.00	5.96	-	-	-	-	-	-
21-Dec-22	2.54	12.00	5.85	-	-	-	-	-	-
22-Dec-22	2.54	12.00	6.05	-	-	-	-	-	-
23-Dec-22	2.36	12.00	6.45	-	-	-	-	-	-
24-Dec-22	2.30	12.00	6.43	-	-	-	-	-	-
25-Dec-22	2.45	12.00	5.51	-	-	-	-	-	-
26-Dec-22	2.15	12.00	6.89	-	-	-	-	-	-
27-Dec-22	2.14	12.00	7.28	-	-	-	-	-	-
28-Dec-22	2.36	12.00	6.33	-	-	-	-	-	-
29-Dec-22	2.45	12.00	6.56	-	-	-	-	-	-
30-Dec-22	2.51	12.00	6.48	-	-	-	-	-	-
31-Dec-22	2.45	12.00	6.82	-	-	-	-	-	-
	2.00[#]	12.00[#]	5.58	-	-	-	-	-	-

Source: IEX, PXIL and HPX

* 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-28(b): PRICE OF GREEN DAY AHEAD TRANSACTIONS OF ELECTRICITY (DAY-WISE) (₹/kWh),
DECEMBER 2022**

Market Segment	Green Day ahead market of IEX			Green Day ahead market of PXIL			Green Day ahead market of HPX		
Date	Minimum ACP	Maximum ACP	Weighted Average Price*	Minimum ACP	Maximum ACP	Weighted Average Price*	Minimum ACP	Maximum ACP	Weighted Average Price*
1-Dec-22	3.51	9.50	4.99	-	-	-	-	-	-
2-Dec-22	3.72	9.50	5.36	-	-	-	-	-	-
3-Dec-22	3.75	8.80	5.14	-	-	-	-	-	-
4-Dec-22	3.72	8.00	5.05	-	-	-	-	-	-
5-Dec-22	3.75	9.00	5.25	-	-	-	-	-	-
6-Dec-22	3.72	10.00	6.04	-	-	-	-	-	-
7-Dec-22	3.15	8.00	4.92	-	-	-	-	-	-
8-Dec-22	3.85	10.00	5.43	-	-	-	-	-	-
9-Dec-22	3.40	7.90	5.40	-	-	-	-	-	-
10-Dec-22	3.40	8.00	4.95	-	-	-	-	-	-
11-Dec-22	2.90	5.92	4.08	-	-	-	-	-	-
12-Dec-22	2.90	6.00	4.26	-	-	-	-	-	-
13-Dec-22	3.36	6.00	4.27	-	-	-	-	-	-
14-Dec-22	3.00	7.00	4.43	-	-	-	-	-	-
15-Dec-22	2.97	7.00	4.66	-	-	-	-	-	-
16-Dec-22	3.36	7.00	4.85	-	-	-	-	-	-
17-Dec-22	3.36	7.50	5.07	-	-	-	-	-	-
18-Dec-22	3.36	8.00	4.87	-	-	-	-	-	-
19-Dec-22	3.36	9.00	5.50	-	-	-	-	-	-
20-Dec-22	3.36	10.50	5.82	-	-	-	-	-	-
21-Dec-22	3.35	11.00	5.67	-	-	-	-	-	-
22-Dec-22	3.35	11.50	5.79	-	-	-	-	-	-
23-Dec-22	3.35	12.00	5.83	-	-	-	-	-	-
24-Dec-22	3.35	11.00	5.96	-	-	-	-	-	-
25-Dec-22	3.35	7.51	4.55	-	-	-	-	-	-
26-Dec-22	3.00	12.00	6.04	-	-	-	-	-	-
27-Dec-22	3.30	12.00	6.65	-	-	-	-	-	-
28-Dec-22	3.36	12.00	6.94	-	-	-	-	-	-
29-Dec-22	3.00	9.00	5.23	-	-	-	-	-	-
30-Dec-22	3.00	12.00	6.47	-	-	-	-	-	-
31-Dec-22	3.25	11.00	5.56	-	-	-	-	-	-
	2.90[#]	12.00[#]	5.24	-	-	-	-	-	-

Source: IEX, PXIL and HPX

* 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-28(c): PRICE OF REAL TIME TRANSACTIONS AND DSM (DAY-WISE) (₹/kWh), DECEMBER 2022

Market Segment	Real Time market of IEX			Real Time market of PXIL			Real Time market of HPX			Under Drawl/Over Drawl from the Grid (DSM)**		
	Date	Minimum ACP	Maximum ACP	Weighted Average Price*	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-22	2.09	11.81	4.86	-	-	-	-	-	-	0.00	8.00	4.85
2-Dec-22	2.81	8.87	5.53	-	-	-	-	-	-	0.00	8.00	5.19
3-Dec-22	2.81	7.98	4.91	-	-	-	-	-	-	0.00	8.00	4.70
4-Dec-22	2.70	5.69	4.32	-	-	-	-	-	-	0.00	8.00	3.14
5-Dec-22	2.11	8.87	4.54	-	-	-	-	-	-	2.75	38.19	7.77
6-Dec-22	2.10	6.50	4.65	-	-	-	-	-	-	2.57	39.72	8.42
7-Dec-22	2.25	8.00	5.06	-	-	-	-	-	-	2.81	39.06	12.21
8-Dec-22	2.75	12.00	5.19	-	-	-	-	-	-	2.81	41.38	10.81
9-Dec-22	1.00	6.99	4.41	-	-	-	-	-	-	2.65	32.13	6.71
10-Dec-22	1.00	6.50	3.78	-	-	-	-	-	-	2.65	11.28	4.64
11-Dec-22	1.70	5.28	3.38	-	-	-	-	-	-	2.50	11.28	3.95
12-Dec-22	0.50	6.50	3.76	-	-	-	-	-	-	2.18	37.76	7.27
13-Dec-22	1.10	6.57	4.23	-	-	-	-	-	-	2.09	35.54	6.60
14-Dec-22	2.09	6.50	4.49	-	-	-	-	-	-	2.00	35.83	9.44
15-Dec-22	2.57	12.00	5.37	-	-	-	-	-	-	2.11	36.09	10.63
16-Dec-22	2.89	12.00	6.96	-	-	-	-	-	-	2.68	17.52	8.08
17-Dec-22	2.89	12.00	6.34	-	-	-	-	-	-	2.65	18.89	7.64
18-Dec-22	2.77	7.81	4.88	-	-	-	-	-	-	2.54	12.00	5.21
19-Dec-22	2.89	12.00	6.30	-	-	-	-	-	-	2.62	28.07	8.61
20-Dec-22	2.50	12.00	6.25	-	-	-	-	-	-	2.77	24.56	9.44
21-Dec-22	2.50	12.00	5.59	-	-	-	-	-	-	2.54	22.18	7.79
22-Dec-22	2.20	12.00	5.83	-	-	-	-	-	-	2.54	22.26	7.16
23-Dec-22	2.30	12.00	6.55	-	-	-	-	-	-	2.36	23.65	8.16
24-Dec-22	2.14	12.00	6.53	-	-	-	-	-	-	2.77	23.48	7.67
25-Dec-22	2.15	10.00	6.28	-	-	-	-	-	-	2.45	27.14	7.70
26-Dec-22	1.00	12.00	6.42	-	-	-	-	-	-	2.15	22.51	8.14
27-Dec-22	1.59	10.00	5.23	-	-	-	-	-	-	2.15	18.61	7.09
28-Dec-22	2.81	12.00	7.08	-	-	-	-	-	-	2.54	12.00	7.17
29-Dec-22	2.77	12.00	6.95	-	-	-	-	-	-	2.65	12.00	7.84
30-Dec-22	2.25	12.00	6.41	-	-	-	-	-	-	2.54	12.00	7.58
31-Dec-22	2.09	12.00	5.76	-	-	-	-	-	-	2.45	12.00	6.64
	0.50[#]	12.00[#]	5.47	-	-	-	-	-	-	0.00[#]	41.38[#]	7.36

Source: Data on price of PX transactions from IEX, PXIL and HPX 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.

** CERC DSM Regulations 2022 came into effect from 05.12.2022, wherein normal rate of charges for deviation for a time block is equal to the highest of the [weighted average Area Clearing Price (ACP) of the Day Ahead Market segments of all the Power Exchanges; or the weighted average ACP of the Real Time Market segments of all the Power Exchanges; or the Weighted Average Ancillary Service Charge of all the regions]. Thereafter a ceiling of Rs. 12/kWh was imposed by CERC from 28.12.2022

[#] Maximum/Minimum in the month

**Table-29: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (REGIONAL ENTITY*-WISE) (MUs),
DECEMBER 2022**

Name of the Entity	Through Bilateral (Traders + PXs + Direct)			Through Power Exchange (DAM + GDAM + RTM)			Through DSM with Regional Grid			Total Net***
	Sale	Purchase	Net**	Sale	Purchase	Net**	Import (Over Drawl)	Export (Under Drawl)	Net**	
PUNJAB	992.54	49.16	-943.39	2.33	394.77	392.44	21.67	64.06	-42.39	-593.34
HARYANA	138.38	228.63	90.24	29.58	190.20	160.62	38.67	64.07	-25.40	225.47
RAJASTHAN	3.32	738.20	734.88	27.94	881.91	853.97	57.34	55.26	2.08	1590.93
DELHI	307.11	108.06	-199.04	190.42	90.32	-100.10	6.48	45.19	-38.71	-337.85
UTTAR PRADESH	714.95	132.94	-582.01	1067.46	292.11	-775.35	68.16	83.15	-14.98	-1372.34
UTTARAKHAND	7.56	318.66	311.09	4.14	153.89	149.76	21.98	17.22	4.77	465.62
HIMACHAL PRADESH	31.98	536.76	504.78	77.95	10.83	-67.12	24.72	10.13	14.60	452.26
J & K	48.33	85.97	37.64	46.67	584.72	538.06	10.30	69.80	-59.50	516.20
CHANDIGARH	0.00	0.00	0.00	20.19	2.61	-17.58	5.85	4.36	1.48	-16.10
MP	35.19	1246.81	1211.62	248.66	37.01	-211.65	19.16	111.43	-92.28	907.69
MAHARASHTRA	55.53	784.70	729.18	109.28	684.14	574.86	62.64	66.07	-3.43	1300.60
GUJARAT	110.43	698.01	587.58	39.18	1108.65	1069.47	50.44	118.39	-67.95	1589.10
CHHATTISGARH	119.53	45.30	-74.23	346.92	29.78	-317.14	23.09	21.60	1.49	-389.89
GOA	5.97	36.85	30.88	21.39	13.41	-7.98	10.81	5.72	5.09	28.00
DD&DNH	0.00	72.15	72.15	4.08	156.58	152.50	4.94	4.71	0.23	224.87
ANDHRA P	6.10	225.76	219.66	72.92	707.14	634.22	28.37	49.69	-21.33	832.56
KARNATAKA	195.96	56.67	-139.28	259.90	137.77	-122.13	72.33	47.84	24.49	-236.92
KERALA	0.00	46.46	46.46	41.62	66.54	24.92	10.59	9.80	0.78	72.16
TAMIL NADU	27.33	91.12	63.78	96.41	362.03	265.62	31.28	102.77	-71.49	257.91
PONDICHERRY	0.00	20.67	20.67	0.00	0.00	0.00	3.69	10.94	-7.24	13.43
TELANGANA	221.67	444.49	222.82	81.74	492.04	410.29	33.91	65.05	-31.14	601.97
WEST BENGAL	129.55	35.77	-93.79	856.34	100.71	-755.62	43.38	10.61	32.77	-816.64
ODISHA	112.69	78.17	-34.52	207.46	63.90	-143.56	56.33	13.81	42.51	-135.56
BIHAR	11.51	1.98	-9.53	1125.94	1.13	-1124.82	27.32	23.93	3.39	-1130.96
JHARKHAND	0.00	66.65	66.65	9.92	16.14	6.22	22.18	25.53	-3.35	69.51
SIKKIM	3.28	32.03	28.75	8.76	10.43	1.66	2.57	2.23	0.34	30.75
DVC	87.49	0.10	-87.40	29.32	25.88	-3.43	24.46	22.41	2.05	-88.78
ARUNACHAL P	14.61	11.38	-3.23	3.92	0.78	-3.15	6.65	2.20	4.45	-1.93
ASSAM	0.00	0.00	0.00	70.44	75.37	4.93	5.01	22.91	-17.90	-12.97
MANIPUR	0.00	34.91	34.91	3.56	4.72	1.16	2.77	2.20	0.57	36.65
MEGHALAYA	16.27	116.79	100.52	12.75	6.90	-5.85	2.70	4.19	-1.49	93.18
MIZORAM	0.00	1.45	1.45	2.32	0.00	-2.32	0.38	4.95	-4.56	-5.44
NAGALAND	0.00	7.44	7.44	4.68	0.00	-4.68	1.15	2.20	-1.05	1.71
TRIPURA	0.00	0.00	0.00	44.69	3.24	-41.46	2.33	7.32	-4.99	-46.45
NTPC STATIONS-NR	17.34	0.00	-17.34	0.00	0.00	0.00	112.60	23.32	89.27	71.94
NHPC STATIONS	0.00	0.00	0.00	2.70	0.00	-2.70	6.75	25.99	-19.23	-21.93
NFF	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.15	-0.02	-0.02
RAIL	0.00	0.00	0.00	0.00	0.00	0.00	2.21	6.75	-4.54	-4.54
NEP	0.00	0.00	0.00	0.00	23.83	23.83	2.55	1.91	0.64	24.47
NAPP	0.00	0.00	0.00	0.00	0.00	0.00	1.57	2.38	-0.80	-0.80
RAP B	0.00	0.00	0.00	0.00	0.00	0.00	1.97	0.48	1.49	1.49
NJPC	0.00	0.00	0.00	0.00	0.00	0.00	1.10	2.87	-1.78	-1.78
TEHRI	0.00	0.00	0.00	0.00	0.00	0.00	2.75	5.37	-2.62	-2.62
BBMB	0.00	0.00	0.00	0.00	0.00	0.00	7.11	13.85	-6.74	-6.74
RAP C	0.00	0.00	0.00	0.00	0.00	0.00	2.74	1.61	1.13	1.13
AD HYDRO	14.40	0.00	-14.40	3.42	0.00	-3.42	0.09	0.34	-0.26	-18.08
IGSTPS	0.00	0.00	0.00	0.00	0.00	0.00	16.49	9.70	6.80	6.80
KOTESHWAR	0.00	0.00	0.00	0.00	0.00	0.00	0.45	2.11	-1.66	-1.66
KARCHAM WANGTOO	10.41	0.00	-10.41	6.13	0.00	-6.13	1.28	1.86	-0.58	-17.13
SHREE CEMENT	5.73	0.00	-5.73	4.90	0.00	-4.90	0.42	0.15	0.27	-10.35
LANCO BUDHIL	0.00	0.00	0.00	0.90	0.00	-0.90	0.07	0.26	-0.19	-1.09
RAMPUR HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.35	2.12	-1.76	-1.76
SORANG HEP	10.72	0.00	-10.72	0.03	0.00	-0.03	0.55	0.49	0.06	-10.69
SAINJ HEP	6.90	0.00	-6.90	8.82	0.00	-8.82	0.35	0.44	-0.09	-15.81
RENEW_SLR	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.28	0.43	0.43
AZURE_SLR	0.00	0.00	0.00	0.23	0.00	-0.23	1.77	1.13	0.63	0.40

SB_SLR	8.86	0.00	-8.86	2.09	0.00	-2.09	3.03	0.45	2.58	-8.37
ACME_SLR	0.00	0.00	0.00	0.00	0.00	0.00	2.81	0.93	1.88	1.88
AZURE34_SLR	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.24	-0.24	-0.24
TATA_SLR	30.04	0.00	-30.04	0.00	0.00	0.00	5.22	0.44	4.78	-25.26
RENEW_SLR_BKN	0.00	0.00	0.00	0.00	0.00	0.00	2.45	0.91	1.55	1.55
CLEAN_SLR	0.00	0.00	0.00	0.00	0.00	0.00	2.17	3.94	-1.77	-1.77
ARERJL_SLR	0.00	0.00	0.00	0.00	0.00	0.00	2.68	1.12	1.56	1.56
KSMPL_SLR	0.00	0.00	0.00	0.00	0.00	0.00	0.77	0.16	0.61	0.61
ADANI GREEN	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.61	-0.19	-0.19
ASEJTL_SLR	0.00	0.00	0.00	9.50	0.00	-9.50	4.45	2.20	2.24	-7.26
SINGOLI BHATWARI HE	17.53	0.00	-17.53	0.71	0.00	-0.71	0.10	0.27	-0.18	-18.41
AZURE43_SLR	0.00	0.00	0.00	0.00	0.00	0.00	7.24	3.89	3.36	3.36
MRPL	0.00	0.00	0.00	0.00	0.00	0.00	1.79	1.13	0.65	0.65
SB6_POKARAN	0.00	0.00	0.00	0.00	0.00	0.00	4.26	1.91	2.35	2.35
EDEN_SLR	0.00	0.00	0.00	0.00	0.00	0.00	2.26	1.60	0.66	0.66
SBSR_SLR	0.00	0.00	0.00	0.00	0.00	0.00	3.07	1.03	2.03	2.03
RENEWSW_SLR	0.00	0.00	0.00	0.00	0.00	0.00	1.93	1.00	0.93	0.93
ADANIHB_SLR	7.34	0.00	-7.34	0.00	0.00	0.00	0.00	0.00	0.00	-7.34
RENEWJH_SLR	0.00	0.00	0.00	0.00	0.00	0.00	1.95	0.94	1.01	1.01
ADANIHB_WIND	0.08	0.00	-0.08	0.00	0.00	0.00	0.00	0.00	0.00	-0.08
ADANI_SLR	0.00	0.00	0.00	1.03	0.00	-1.03	0.00	0.00	0.00	-1.03
AHEJ4L_WIND	80.42	0.00	-80.42	0.00	0.00	0.00	0.00	0.00	0.00	-80.42
AHEJ4L_SOLAR	124.85	0.00	-124.85	0.00	0.00	0.00	0.00	0.00	0.00	-124.85
RENEWSB	0.00	0.00	0.00	0.00	0.00	0.00	2.02	1.27	0.75	0.75
AZURE41_SLR	0.00	0.00	0.00	0.00	0.00	0.00	3.27	1.29	1.98	1.98
AYANA_RP1	0.00	0.00	0.00	0.00	0.00	0.00	3.46	1.95	1.51	1.51
AVAADASN_SLR	51.13	0.00	-51.13	0.00	0.00	0.00	10.09	2.58	7.51	-43.61
RENEWURJA_SLR	0.00	0.00	0.00	0.00	0.00	0.00	1.85	1.51	0.34	0.34
AVADARJHN_SLR	0.00	0.00	0.00	0.00	0.00	0.00	5.68	2.67	3.01	3.01
NCR ALLAHABAD	0.00	0.00	0.00	0.00	3.69	3.69	0.00	0.00	0.00	3.69
RENEW_SR_SLR	23.10	0.00	-23.10	1.12	0.00	-1.12	1.89	1.05	0.84	-23.38
AZURE_MAPLE_SLR	0.00	0.00	0.00	0.00	0.00	0.00	2.40	0.67	1.73	1.73
THARI_SLR	36.63	0.00	-36.63	0.00	0.00	0.00	3.63	1.11	2.52	-34.11
CLEANSR_SLR	0.00	0.00	0.00	0.00	0.00	0.00	2.03	1.77	0.26	0.26
ACME_HEERGARH	45.01	0.00	-45.01	0.00	0.00	0.00	2.45	1.70	0.75	-44.26
ABC_BHDL2	61.97	0.00	-61.97	0.00	0.00	0.00	2.74	1.19	1.55	-60.42
MSUPL_BHDL2	0.00	0.00	0.00	0.00	0.00	0.00	1.72	0.95	0.77	0.77
KOLYAT_SLR	76.13	0.00	-76.13	0.00	0.00	0.00	0.00	0.00	0.00	-76.13
TATA_GREEN	40.38	0.00	-40.38	0.00	0.00	0.00	6.61	0.75	5.86	-34.52
NTPC STATIONS-WR	0.03	0.00	-0.03	13.30	0.00	-13.30	89.06	47.93	41.12	27.79
BHADRAVATHI HVDC	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.04	0.02	0.02
VINDHYACHAL HVDC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	-0.28	-0.28
JINDAL POWER	233.02	0.00	-233.02	67.88	0.00	-67.88	1.63	3.56	-1.93	-302.83
LANKO_AMK	5.04	0.00	-5.04	0.00	0.00	0.00	1.99	5.12	-3.14	-8.18
NSPCL	0.00	0.00	0.00	0.00	0.00	0.00	1.19	1.47	-0.28	-0.28
ACBIL	1.08	0.00	-1.08	77.01	0.00	-77.01	0.67	2.98	-2.31	-80.40
BALCO	3.52	63.57	60.05	7.15	9.42	2.28	4.80	2.17	2.62	64.95
RGPPL	0.00	0.00	0.00	0.00	0.00	0.00	1.17	0.28	0.89	0.89
CGPL	0.00	0.00	0.00	7.96	0.00	-7.96	13.58	2.29	11.29	3.32
DCPP	0.00	0.00	0.00	25.46	0.22	-25.25	0.47	0.17	0.30	-24.94
EMCO	0.00	0.00	0.00	12.94	0.00	-12.94	0.29	3.46	-3.17	-16.11
KSK MAHANADI	0.00	0.00	0.00	0.00	0.00	0.00	2.23	1.70	0.525	0.525
ESSAR POWER	217.54	0.00	-217.54	71.97	3.50	-68.47	4.12	1.00	3.12	-282.89
JINDAL STAGE-II	384.23	0.00	-384.23	167.13	0.18	-166.95	1.77	4.52	-2.76	-553.94
DB POWER	14.40	0.00	-14.40	82.87	0.00	-82.87	0.98	5.81	-4.82	-102.09
DHARIWAL POWER	0.00	0.00	0.00	0.52	0.00	-0.52	0.27	0.32	-0.06	-0.58
JAYPEE NIGRIE	21.41	0.00	-21.41	202.01	1.33	-200.68	0.47	5.81	-5.35	-227.44
DGEN MEGA POWER	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.00	1.04	1.04
MB POWER	115.32	0.00	-115.32	120.51	0.00	-120.51	4.99	7.86	-2.87	-238.70
MARUTI COAL	0.00	0.00	0.00	31.62	0.00	-31.62	0.00	0.00	0.00	-31.62
JHABUA POWER_MP	0.00	0.00	0.00	19.10	0.00	-19.10	2.02	1.41	0.61	-18.49
SASAN UMPP	0.00	0.00	0.00	6.28	0.00	-6.28	0.08	41.72	-41.65	-47.93
TRN ENERGY	6.78	0.00	-6.78	4.03	0.00	-4.03	0.75	1.70	-0.95	-11.76

RKM POWER	150.53	0.00	-150.53	66.41	0.00	-66.41	5.62	7.73	-2.11	-219.05
SKS POWER	129.89	0.00	-129.89	18.82	0.00	-18.82	0.50	1.53	-1.03	-149.74
BARC	0.00	0.00	0.00	0.00	0.00	0.00	0.03	2.62	-2.59	-2.59
KAPP 3&4	0.00	0.00	0.00	13.82	0.00	-13.82	6.75	30.03	-23.29	-37.10
HVDC CHAMPA	0.00	0.00	0.00	0.23	0.00	-0.23	0.02	0.16	-0.14	-0.38
MAHINDRA_RUMS	0.00	0.00	0.00	0.00	0.00	0.00	2.17	1.37	0.80	0.80
ARINSUM_RUMS	0.00	0.00	0.00	0.00	0.00	0.00	2.13	1.83	0.30	0.30
OSTRO	1.72	0.00	-1.72	12.32	0.00	-12.32	16.93	2.75	14.18	0.14
ACME_RUMS	0.00	0.00	0.00	0.00	0.00	0.00	2.26	1.61	0.65	0.65
RENEW_BHACHAU	0.00	0.00	0.00	0.00	0.00	0.00	13.41	2.42	10.99	10.99
GIWEL_BHUJ	0.00	0.00	0.00	0.00	0.00	0.00	25.13	4.76	20.37	20.37
INOX_BHUJ	0.00	0.00	0.00	0.00	0.00	0.00	7.20	0.78	6.42	6.42
AGEMPL BHUJ	0.00	0.00	0.00	0.00	0.00	0.00	27.91	3.61	24.30	24.30
REGL	7.21	0.00	-7.21	6.29	0.08	-6.21	0.00	0.00	0.00	-13.41
RPREL	509.92	0.00	-509.92	194.11	0.00	-194.11	2.99	2.24	0.74	-703.30
AMPS Hazira	0.00	159.46	159.46	0.00	175.95	175.95	25.40	17.68	7.72	343.14
HVDC RAIGARH	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.15	-0.07	-0.07
RGPPL_Others	0.00	0.00	0.00	0.90	0.00	-0.90	0.00	0.00	0.00	-0.90
ALFANAR_BHUJ	0.00	0.00	0.00	0.00	0.00	0.00	14.92	1.95	12.96	12.96
RENEW_BHUJ	0.00	0.00	0.00	0.00	0.00	0.00	16.45	3.04	13.41	13.41
ADANI_WIND	5.23	0.00	-5.23	9.90	0.00	-9.90	0.00	0.00	0.00	-15.13
TPREL_RADHANESDA	0.00	0.00	0.00	0.00	0.00	0.00	0.91	0.42	0.49	0.49
ESPL_RADHANESDA	0.00	0.00	0.00	0.00	0.00	0.00	1.38	1.09	0.30	0.30
GIPCL_RADHANESDA	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.69	0.02	0.02
GSECL_Radhanesda	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.82	-0.43	-0.43
AVIKIRAN	0.00	0.00	0.00	0.00	0.00	0.00	5.86	2.24	3.62	3.62
SESPL	0.00	0.00	0.00	0.00	0.00	0.00	4.62	0.64	3.98	3.98
POWERICA	0.00	0.00	0.00	0.00	0.00	0.00	2.56	0.75	1.81	1.81
SKRPL	0.00	0.00	0.00	0.00	0.00	0.00	11.25	1.80	9.45	9.45
SBESS	0.00	0.00	0.00	0.00	0.00	0.00	11.87	8.40	3.47	3.47
NTPC STATIONS-SR	9.00	0.00	-9.00	26.06	0.00	-26.06	44.52	15.27	29.25	-5.81
LANKO KONDAPALLI	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.00	0.43	0.43
SIMHAPURI	0.00	0.00	0.00	0.01	0.00	-0.01	1.59	0.00	1.59	1.58
MEENAKSHI	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.49	0.49
COASTGEN	0.00	0.00	0.00	0.00	0.00	0.00	2.56	0.82	1.74	1.74
THERMAL POWERTECH	0.00	0.00	0.00	0.00	0.00	0.00	5.56	1.27	4.29	4.29
IL&FS	0.00	0.00	0.00	1.41	0.00	-1.41	2.36	0.69	1.66	0.25
NLC	0.00	0.00	0.00	13.31	0.00	-13.31	28.23	10.05	18.17	4.86
SEMBCORP	240.28	0.00	-240.28	175.05	0.00	-175.05	3.57	1.86	1.71	-413.62
NETCL VALLUR	0.00	0.00	0.00	0.00	0.00	0.00	6.40	1.34	5.06	5.06
NTPL	0.00	0.00	0.00	0.00	0.00	0.00	6.60	0.88	5.72	5.72
AHSP_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	1.51	0.41	1.10	1.10
AKSP_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	1.51	0.37	1.14	1.14
ABSP_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	1.52	0.41	1.11	1.11
AZURE_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	0.95	0.55	0.40	0.40
TATA_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.58	2.42	2.42
FRV_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	1.16	0.45	0.71	0.71
NTPC_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	5.82	1.57	4.25	4.25
GIWEL_TCN	0.00	0.00	0.00	0.00	0.00	0.00	13.35	3.60	9.75	9.75
MYTRAH_TCN	0.00	0.00	0.00	0.00	0.00	0.00	11.02	2.79	8.24	8.24
FRV_NPK	0.00	0.00	0.00	0.00	0.00	0.00	1.05	0.60	0.46	0.46
ORANGE_TCN	0.00	0.00	0.00	0.00	0.00	0.00	6.77	5.39	1.38	1.38
BETAM_TCN	0.00	0.00	0.00	0.00	0.00	0.00	8.81	3.42	5.39	5.39
SBG_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	4.86	1.35	3.51	3.51
SBG_NPK	0.00	0.00	0.00	0.00	0.00	0.00	3.34	3.08	0.26	0.26
FORTUM1_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	2.03	0.84	1.19	1.19
PARAM_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	3.36	0.94	2.42	2.42
YARROW_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	1.18	0.27	0.91	0.91
TATA_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	9.01	1.95	7.06	7.06
RENEW_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	1.38	0.15	1.23	1.23
AKS_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	1.12	0.21	0.91	0.91
ARS_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	1.06	0.25	0.82	0.82
AVAADA1_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	3.31	0.77	2.55	2.55

ADY1_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	6.35	1.60	4.76	4.76
AZURE_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	1.92	0.60	1.32	1.32
FORTUM2_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	4.54	1.70	2.84	2.84
AVAADA2_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	3.49	0.65	2.85	2.85
KREDL_PVGD	0.00	0.00	0.00	0.06	0.00	-0.06	2.16	0.24	1.92	1.87
AYANA_NPKUNTA	0.00	0.00	0.00	0.00	0.00	0.00	4.63	2.50	2.13	2.13
SPRNG_NPKUNTA	0.00	0.00	0.00	0.00	0.00	0.00	6.18	1.73	4.45	4.45
SPRING_PUGALUR	0.00	0.00	0.00	0.00	0.00	0.00	11.61	1.48	10.12	10.12
OSTRO Hiriyr	0.05	0.00	-0.05	0.43	0.00	-0.43	9.85	2.71	7.14	6.66
RSTPS_FSPP	0.00	0.00	0.00	0.00	0.00	0.00	1.02	1.11	-0.09	-0.09
GRT_JPL	0.00	0.00	0.00	0.00	0.00	0.00	3.09	1.72	1.38	1.38
JSW_RENEW_2	6.03	0.00	-6.03	0.00	0.00	0.00	2.12	0.88	1.24	-4.79
NTPC STATIONS-ER	0.00	0.00	0.00	10.12	0.00	-10.12	54.81	53.18	1.62	-8.50
MAITHON POWER LTD	0.00	0.00	0.00	0.00	0.00	0.00	9.35	4.91	4.44	4.44
NPGC	0.00	0.00	0.00	0.00	0.00	0.00	8.46	3.70	4.76	4.76
ADHUNIK POWER LTD	157.66	0.00	-157.66	16.78	0.00	-16.78	1.75	2.26	-0.51	-174.95
CHUZACHEN HEP	0.00	0.00	0.00	1.53	0.00	-1.53	0.31	0.23	0.07	-1.46
RANGIT HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.37	0.18	0.18
GMR KAMALANGA	34.27	0.00	-34.27	0.74	0.00	-0.74	1.98	0.34	1.64	-33.37
JITPL	158.26	0.00	-158.26	168.59	0.00	-168.59	4.10	4.66	-0.56	-327.41
TEESTA HEP	0.00	0.00	0.00	22.79	0.00	-22.79	0.04	1.65	-1.61	-24.40
DAGACHU	21.36	0.00	-21.36	0.00	0.00	0.00	0.26	0.07	0.19	-21.18
JORETHANG	13.13	0.00	-13.13	0.74	0.00	-0.74	0.46	0.54	-0.08	-13.95
NEPAL(NVVN)	0.00	0.00	0.00	23.25	54.59	31.34	8.76	1.66	7.10	38.44
BANGLADESH	0.00	148.80	148.80	0.00	0.00	0.00	1.97	3.16	-1.19	147.61
HVDC PUS	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.01	0.07	0.07
TEESTA STG3	134.99	0.00	-134.99	0.00	0.00	0.00	0.36	1.23	-0.87	-135.86
DIKCHU HEP	10.92	0.00	-10.92	0.85	0.00	-0.85	0.27	0.52	-0.26	-12.03
HVDC ALPD	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.01	0.13	0.13
TASHIDENG HEP	12.83	0.00	-12.83	0.53	0.00	-0.53	1.38	6.19	-4.81	-18.17
BRBCL,NABINAGAR	0.00	0.00	0.00	0.00	0.00	0.00	8.34	2.15	6.18	6.18
MTPS II	0.00	0.00	0.00	0.00	0.00	0.00	3.11	1.57	1.54	1.54
RONGNICHU HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.43	-0.26	-0.26
NTPC STATIONS-NER	0.00	0.00	0.00	3.98	0.00	-3.98	2.85	2.05	0.80	-3.17
NEEPCO STATIONS	39.62	0.00	-39.62	49.88	0.00	-49.88	1.13	11.10	-9.98	-99.48
RANGANADI HEP	0.00	0.00	0.00	0.00	0.00	0.00	1.86	0.58	1.28	1.28
DOYANG HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.20	0.08	0.08
ONGC PALATANA	14.18	0.00	-14.18	11.33	0.00	-11.33	0.96	2.28	-1.32	-26.83
LOKTAK	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.16	-0.07	-0.07
PARE HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.51	-0.29	-0.29

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 exchanges and DSM

Table-30: VOLUME AND PRICE OF RENEWABLE ENERGY CERTIFICATES (RECs) TRANSACTED THROUGH POWER EXCHANGES, DECEMBER 2022

Sr. No.	Details of REC Transactions	IEX	PXIL	HPX
A	Volume of Buy Bid	688356	93993	85805
B	Volume of Sell Bid	2123044	394485	91243
C	Ratio of Buy Bid to Sell Bid Volume	0.32	0.24	0.94
D	Market Clearing Volume (MWh)	487356	93993	85805
E	Weighted average Market Clearing Price (₹/MWh)	1000	1000	1000

Source: IEX, PXIL and HPX

Note: 1 REC = 1 MWh

Table-31: VOLUME AND PRICE OF CROSS BORDER TRADE THROUGH DAY AHEAD MARKET AT IEX, DECEMBER 2022

Sr. No.	Neighbouring Country	Volume (MU)			Weighted Average Price (₹/kWh)	
		Sale	Purchase	Net*	Sale	Purchase
1	Nepal	23.25	78.43	55.17	5.76	4.84
2	Bhutan	-	-	-	-	-

Source: IEX

* Net indicates difference of volume purchased and sold by the respective neighbouring country

Note: No Cross Border transactions were recorded in DAM at PXIL and HPX