

# Monthly Report on Short-term Transactions of Electricity in India

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## Abbreviations

<b>Abbreviation</b>	<b>Expanded Version</b>
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_S	Adani Hybrid Energy Jaisalmer Two Limited (Solar)
AHEJ3L_S	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	Chuzachen Hydro Electric Power Project
CLEAN_SLR	Clean Solar Power Pvt. Ltd
COASTGEN	Coastal Energen Private Limited
DAGACHU	Dagachhu Hydro Power Corporation
DAM	Day Ahead Market
DB POWER	Diligent Power Pvt. Ltd.
DCPP	Donga Mahua Captive Power Plant
DGEN MEGA POWER	DGEN Mega Power Project
DHARIWAL POWER	Dhariwal Power Station
DIKCHU HEP	Dikchu Hydro-electric Project, Sikkim
DOYANG HEP	Doyang Hydro Electric Project
DSM	Deviation Settlement Mechanism
DVC	Damodar Valley Corporation
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
HVDC ALPD	Alipurduar High Voltage Direct Current Link
HVDC CHAMPA	Champa-Kurukshetra High Voltage Direct Current Link
HVDC PUS	Pasauli High Voltage Direct Current Link
HVDC RAIGARH	Raigarh-Pugalur High Voltage Direct Current Link
IEX	Indian Energy Exchange Limited
IGSTPS	Indira Gandhi Super Thermal Power Station Jhajjar
IL&FS	Infrastructure Leasing & Financial Services Limited
INOX_BHUJ	INOX Wind Limited, Bhuj, Gujarat
J&K	Jammu & Kashmir
JAYPEE NIGRIE	Jaypee Nigrie Super Thermal Power Project
JHABUA POWER MP	Jhabua Thermal Power Project
JINDAL POWER	Jindal Power Limited
JINDAL STAGE-II	Jindal Power Ltd Stage II
JITPL	Jindal India Thermal Power Ltd.
JORETHANG	Jorethang Loop Hydroelectric Power Project

KAPP 3&4	Kakrapar Atomic Power Station Unit 3 & 4
KARCHAM WANGTOO	Karcham Wangtoo H.E. Project
KORBA WEST POWER	Korba West Power Company Limited
KOTESHWAR	Koteshwar Hydro Power project
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	Renew Solar
RENEW_SLR_BKN	Renew Solar Bikaner
RENEWJH_SLR	Renew Solar Energy (Jharkhand Three) Private Limited
RENEWSW_SLR	Renew Sun Waves 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	RongnichuHydro 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
SBSR_SLR	SBSR Power Cleantech Eleven Private Limited
SEMBCORP	SembcorpGayatri Power Ltd
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
TPREL_RADHANESDA	Tata Power Renewable Energy Limited, Radhanesda
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 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 2021** is presented in the following sections.

## 2. Volume of Short-term Transactions of Electricity

2.1. During December 2021, total electricity generation, excluding generation from renewable and captive power plants in India was 106080.38 MU (Table-1). Of the total electricity generation, 14.35% was transacted through short-term, comprising of 6.69% through Day Ahead Market (DAM) and Real Time Market (RTM) of power exchanges, followed by 5.77% through bilateral (through traders and term-ahead contracts on power exchanges and directly between distribution companies) and 1.90% through DSM (Table-1 & Figure-1).

2.2. Of the total short-term transactions (15222.14 MU), 46.60% was transacted through DAM and RTM of power exchanges, followed by 40.19% through bilateral (27.37% through traders and term-ahead contracts on power exchanges, and 12.82% directly between distribution companies) and 13.21% through DSM (Table-1 & Figure-2). Daily volume of short-term transactions is shown in Table-25 & Figure-4.

2.3. Of the total volume of electricity transacted through power exchanges, 68.41% of the volume was transacted in DAM (including G-DAM), followed by 18.54% in RTM and 13.05% in Term Ahead Market (TAM) (including G-TAM) (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 38 trading licensees as of December 2021. Of which, 26 trading licensees were engaged in short-term trading. The top 5 trading licensees, namely PTC India Ltd., NTPC Vidyut Vyapar Nigam Ltd., Tata Power Trading Company (P) Ltd., Adani Enterprises Ltd. and Manikaran Power Ltd. had a share of 85.50% 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 0.2773 for the month of December 2021, which indicates high concentration of market power (Table-2).

2.6. The volume of electricity transacted in the DAM of IEX and PXIL was 5423.27 MU and 0.88 MU respectively. The volume of total buy bids and sell bids was 7019.85 MU and 9617.01 MU respectively in IEX, while the same was 8.72 MU and 36.44 MU respectively in PXIL.

2.7. The volume of electricity transacted in the G-DAM of IEX was 157.20 MU, while no electricity was transacted in the G-DAM of PXIL. The volume of total buy bids and sell bids was 552.44 MU and 437.29 MU respectively in IEX. The volume of total buy bids was 5.79 MU in PXIL, while no sell bids were received.

2.8. The volume of electricity transacted in the RTM of IEX was 1512.39 MU, while no electricity was transacted in the RTM of PXIL. The volume of total buy bids and sell bids was 2128.26 MU and 3174.64 MU 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.

2.9. The volume of electricity transacted in the TAM of IEX and PXIL was 349.77 MU and 263.24 MU respectively (Table-8 & Table-9). The volume of electricity transacted in the Green Term Ahead Market (G-TAM) of IEX and PXIL was 213.56 MU and 238.34 MU respectively (Table-10 & Table-11).

### 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 ₹2.43/kWh, ₹6.00/kWh and ₹3.81/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 ₹3.73/kWh and ₹4.74/kWh respectively. There were no transactions through traders in Peak periods in December 2021 (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 ₹1.47/kWh, ₹20.00/kWh and ₹3.76/kWh respectively. These prices in the DAM of PXIL were ₹1.85/kWh, ₹5.50/kWh and ₹3.07/kWh respectively (Table-5). The minimum, maximum and weighted average prices for the electricity transacted in the G-DAM of IEX were ₹3.04/kWh, ₹13.90/kWh and ₹4.10/kWh respectively. (Table-6). The minimum, maximum and weighted average prices for the electricity transacted in the RTM of IEX were ₹0.95/kWh, ₹20.00/kWh and ₹3.77/kWh respectively (Table-7). The weighted average price of electricity transacted in the TAM of IEX and PXIL was ₹3.50/kWh and ₹4.15/kWh respectively (Table-8 and Table-9). The price of electricity transacted in the G-TAM of IEX and PXIL was ₹3.71/kWh and ₹3.81/kWh respectively (Table-10 and Table-11).

3.3. **Price of electricity transacted through DSM:** The minimum, maximum and average price of DSM was ₹0.00/kWh, ₹8.00/kWh and ₹3.35/kWh respectively (Table-12).

3.4. The comparison of prices of electricity transacted through trading licensees, power exchanges & DSM are shown in Figure-6. The daily prices of electricity transacted through power exchanges & DSM and their comparison are shown in Table-26(a) & (b) 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 ₹0.028/kWh.

#### **5. Volume of Short-term Transactions of Electricity (Regional Entity<sup>1</sup>-Wise)**

5.1. Of the total bilateral transactions, top 5 regional entities/states sold 38.19% of the volume. These were Punjab, Jindal India Thermal Power Ltd., Raipur Energen Limited, Diligent Power Pvt. Ltd. and Delhi (Table-13). Top 5 regional entities/states purchased 64.20% of the volume, and these were Gujarat, Madhya Pradesh, Odisha, Rajasthan and Himachal Pradesh (Table-14).

5.2. Of the total DAM transactions of power exchanges, top 5 regional entities/states sold 51.41% of the volume, and these were West Bengal, Bihar, Uttar Pradesh, Chhattisgarh and Essar Power Limited (Table-15). Top 5 regional entities/states purchased 56.03% of the volume, and these were Andhra Pradesh, Punjab, Tamil Nadu, Gujarat and Jammu & Kashmir (Table-16).

5.3. Of the total G-DAM transactions of power exchanges, top 5 regional entities/states sold 89.88% of the volume, and these were Karnataka, Telangana, Madhya Pradesh, Jammu & Kashmir and Azure Power Forty Three Private Limited (Table-17). Top 5 regional entities/states purchased 82.69% of the volume, and these were Dadra & Nagar Haveli, Delhi, Assam, Odisha and Haryana (Table-18).

5.4. Of the total RTM transactions of power exchanges, top 5 regional entities/states sold 42.18% of the volume, and these were Madhya Pradesh, Bihar, Uttar Pradesh, Odisha and Karnataka (Table-19). Top 5 regional entities/states purchased 61.33% of the volume, and these were Jammu & Kashmir, Telangana, Rajasthan, Maharashtra and Odisha (Table-20).

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<sup>1</sup> 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.

5.5. Of the total DSM transactions, top 5 regional entities/states under drew 25.68% of the volume, and these were Maharashtra, NTPC Stations (Western Region), Uttar Pradesh, Gujarat and Madhya Pradesh (Table-21). Top 5 regional entities/states overdrew 26.82% of the volume, and these were NTPC Stations (Western Region), Tala Hydroelectric Project Bhutan, Rajasthan, NTPC Stations (Northern Region) and NTPC Stations (Eastern Region) (Table-22).

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-23 & 27. Top 5 electricity selling regional entities/states were West Bengal, Bihar, Karnataka, Chhattisgarh and Uttar Pradesh. Top 5 electricity purchasing regional entities/states were Gujarat, Madhya Pradesh, Andhra Pradesh, Jammu & Kashmir and Rajasthan.

## **6. Congestion<sup>2</sup> 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 the flow (due to congestion) in the inter-State transmission system. In such a situation, power exchanges adopt a mechanism called “Market Splitting”<sup>3</sup>.

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

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

<sup>3</sup> “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.

cleared volume and actual cleared volume. During the month of December 2021, congestion was experienced in RTM on IEX only (Table-24).

6.3. The volume of electricity that could not be cleared, due to congestion, in RTM on IEX was 0.004% of the unconstrained cleared volume. In terms of time, congestion occurred was 0.13% during the month (Table-24).

## **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 details of REC transactions for the month of December 2021 are shown in Table-28. The market clearing volume of solar RECs transacted on IEX and PXIL were 254980 and 78907 respectively and the weighted average market clearing price of these RECs was ₹2211/MWh in IEX and ₹2100/MWh in PXIL. Market clearing volume of non-solar RECs transacted on IEX and PXIL were 1129701 and 587224 respectively and the weighted average market clearing price of these RECs was ₹ 1000/MWh in IEX and ₹ 1000/MWh in PXIL.

7.4. The gap between the volume of buy and sell bids of RECs placed through power exchanges shows the variation in demand for both solar and non-solar RECs. For Solar RECs, the ratio of buy bids to sell bids was 1.22 and 0.92 in IEX and PXIL respectively. For non-solar RECs, the ratio of buy bids to sell bids was 0.58 and 0.63 in IEX and PXIL respectively.

## **8. Inferences:**

a) The percentage of short-term transactions of electricity to total electricity generation was 14.35%.

- b) Of the total short-term transactions (15222.14 MU), 46.60% was transacted through DAM and RTM of power exchanges, followed by 40.19% through bilateral (27.37% through traders and term-ahead contracts on power exchanges, and 12.82% directly between distribution companies) and 13.21% through DSM.
- c) Of the total volume of electricity transacted through power exchanges, 68.41% of the volume was transacted in DAM (including G-DAM), followed by 18.54% in RTM and 13.05% in Term Ahead Market (TAM) (including G-TAM).
- d) Top 5 trading licensees had a share of 85.50% 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 0.2773, indicating high concentration of market power.
- f) The weighted average price of electricity transacted through trading licensees was ₹3.81/kWh.
- g) The weighted average price of electricity transacted in the TAM of IEX and PXIL was ₹3.50/kWh and ₹4.15/kWh respectively. The weighted average price of electricity transacted in the G-TAM of IEX and PXIL was ₹3.71/kWh and ₹3.81/kWh respectively.
- h) The weighted average price of electricity transacted in DAM of IEX and PXIL was ₹3.76/kWh and ₹3.07/kWh. The weighted average price of electricity transacted in G-DAM of IEX was ₹4.10/kWh. The weighted average price of electricity transacted in RTM of IEX was ₹3.77/kWh. No electricity was transacted in the G-DAM & RTM of PXIL.
- i) The average price of electricity transacted through DSM was ₹3.35/kWh.
- j) The weighted average trading margin charged by the trading licensees for bilateral transactions was ₹0.028/kWh, which was in line with the Trading Licence Regulations 2020.
- k) Top 5 electricity selling regional entities/states were West Bengal, Bihar, Karnataka, Chhattisgarh and Uttar Pradesh. Top 5 electricity purchasing regional entities/states were Gujarat, Madhya Pradesh, Andhra Pradesh, Jammu & Kashmir and Rajasthan.

- l) During the month, congestion was experienced in RTM on IEX only. The volume of electricity that could not be cleared, due to congestion, in RTM on IEX was 0.004% of the unconstrained cleared volume. In terms of time, congestion occurred was 0.13% during the month.
- m) The market clearing volume of solar RECs transacted on IEX and PXIL were 254980 and 78907 respectively and the weighted average market clearing price of these RECs was ₹2211/MWh in IEX and ₹2100/MWh in PXIL. Market clearing volume of non-solar RECs transacted on IEX and PXIL were 1129701 and 587224 respectively and the weighted average market clearing price of these RECs was ₹ 1000/MWh in IEX and ₹ 1000/MWh in PXIL.

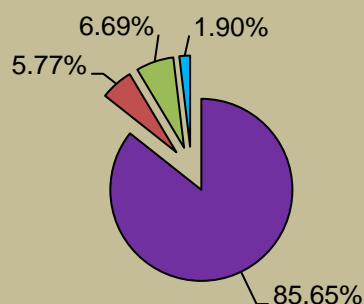
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Table-1: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (ALL INDIA), DECEMBER 2021				
Sr.No	Short-term transactions	Volume (MU)	% to Volume of short-term transactions	% to Total Generation
1	Bilateral	<b>6117.42</b>	<b>40.19</b>	<b>5.77</b>
	(i) Through Traders and PXs	4166.54	27.37	3.93
	(ii) Direct	1950.87	12.82	1.84
2	Through Power Exchanges	<b>7093.74</b>	<b>46.60</b>	<b>6.69</b>
	(i) IEX			
	(a) DAM	5423.27	35.63	5.11
	(b) RTM	1512.39	9.94	1.43
	(c) GDAM	157.20	1.03	0.15
	(ii)PXIL			
	(a) DAM	0.88	0.01	0.001
	(b) RTM	0.00	0.00	0.00
	(c) GDAM	0.00	0.00	0.00
3	Through DSM	<b>2010.98</b>	<b>13.21</b>	<b>1.90</b>
	<b>Total</b>	<b>15222.14</b>	<b>-</b>	<b>14.35</b>
	<b>Total Generation</b>	<b>106080.38</b>	<b>-</b>	<b>-</b>

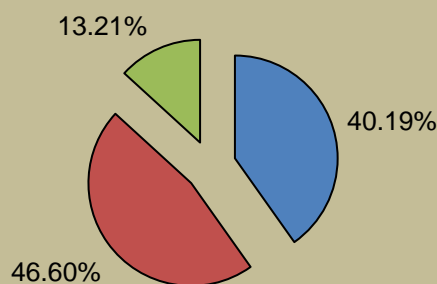
Source: NLDC

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



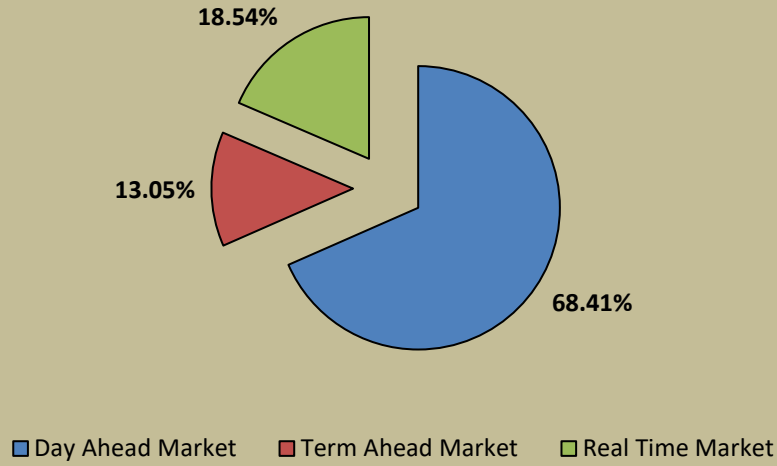
■ Long-term ■ Bilateral ■ Through Power Exchanges ■ Through DSM

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

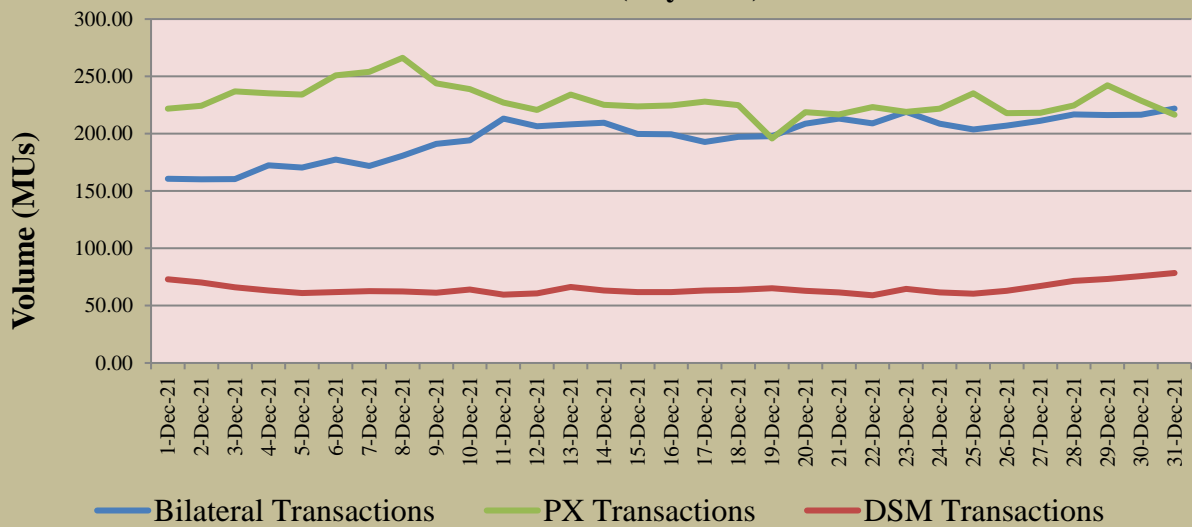


■ Bilateral ■ Power Exchanges ■ DSM

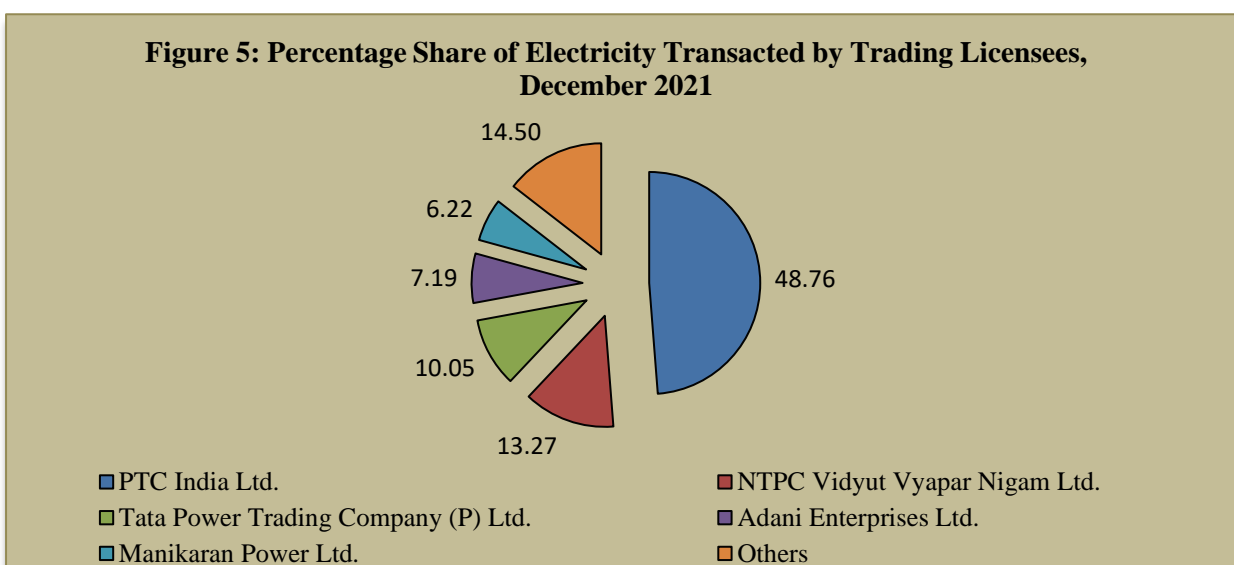
**Figure-3: Volume transacted in different markets segments on Power Exchanges, December 2021**



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



<b>Table-2: PERCENTAGE SHARE OF ELECTRICITY TRANSACTED BY TRADING LICENSEES, DECEMBER 2021</b>			
<b>Sr. No</b>	<b>Name of the Trading Licensee</b>	<b>% Share in total Volume transacted by Trading Licensees</b>	<b>Herfindahl-Hirschman Index</b>
1	PTC India Ltd.	48.76	0.2378
2	NTPC Vidyut Vyapar Nigam Ltd.	13.27	0.0176
3	Tata Power Trading Company (P) Ltd.	10.05	0.0101
4	Adani Enterprises Ltd.	7.19	0.0052
5	Manikaran Power Ltd.	6.22	0.0039
6	Arunachal Pradesh Power Corporation (P) ltd	2.90	0.0008
7	Essar Electric Power Development Corp. Ltd.	2.60	0.0007
8	GMR Energy Trading Ltd.	2.36	0.0006
9	Kreate Energy (I) Pvt. Ltd.	1.73	0.0003
10	Instinct Infra & Power Ltd.	1.27	0.0002
11	Knowledge Infrastructure Systems (P) Ltd	0.83	0.0001
12	RPG Power Trading Company Ltd.	0.74	0.0001
13	National Energy Trading & Services Ltd.	0.58	0.0000
14	JSW Power Trading Company Ltd	0.34	0.0000
15	Statkraft Markets Pvt. Ltd.	0.30	0.0000
16	Refex Energy Limited	0.21	0.0000
17	Abja Power Private Limited	0.21	0.0000
18	Greenko Energies Pvt Ltd	0.12	0.0000
19	NLC India Ltd.	0.08	0.0000
20	Saranyu Power Trading Private Limited	0.08	0.0000
21	Ambitious Power Trading Company Ltd.	0.05	0.0000
22	Customized Energy Solutions India (P) Ltd.	0.04	0.0000
23	Shree Cement Ltd.	0.03	0.0000
24	Altilium Energie Private Limited	0.02	0.0000
25	Phillip Commodities India (P) Ltd.	0.01	0.0000
26	Gita Power & Infrastructure Private Limited	0.0004	0.0000
<b>TOTAL</b>		<b>100.00%</b>	<b>0.2773</b>
<b>Top 5 trading licensees</b>		<b>85.50%</b>	
<i>Note 1: Volume of electricity transacted by the trading licensees includes bilateral transactions (inter-state &amp; 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>			



<b>Table-3: PRICE OF ELECTRICITY TRANSACTED THROUGH TRADERS, DECEMBER 2021</b>		
<b>Sr.No</b>	<b>Item</b>	<b>Sale Price of Traders (₹/kWh)</b>
1	Minimum	2.43
2	Maximum	6.00
3	Weighted Average	3.81

*Source: Information submitted by trading licensees*

<b>Table-4: PRICE OF ELECTRICITY TRANSACTED THROUGH TRADERS (TIME-WISE), DECEMBER 2021</b>		
<b>Sr.No</b>	<b>Period of Trade</b>	<b>Sale Price of Traders (₹/kWh)</b>
1	RTC	3.73
2	PEAK	-
3	OFF PEAK	4.74

*Source: Information submitted by trading licensees*

<b>Table-5: PRICE OF ELECTRICITY TRANSACTED IN DAY AHEAD MARKET THROUGH POWER EXCHANGES, DECEMBER 2021</b>			
<b>Sr.No</b>	<b>ACP</b>	<b>Price in IEX (₹/kWh)</b>	<b>Price in PXIL (₹/kWh)</b>
1	Minimum	1.47	1.85
2	Maximum	20.00	5.50
3	Weighted Average	3.76	3.07

*Source: IEX and PXIL*

<b>Table-6: PRICE OF ELECTRICITY TRANSACTED IN GREEN DAY AHEAD MARKET THROUGH POWER EXCHANGES, DECEMBER 2021</b>			
<b>Sr.No</b>	<b>ACP</b>	<b>Price in IEX (₹/kWh)</b>	<b>Price in PXIL (₹/kWh)</b>
1	Minimum	3.04	-
2	Maximum	13.90	-
3	Weighted Average	4.10	-

*Source: IEX and PXIL*

<b>Table-7: PRICE OF ELECTRICITY TRANSACTED IN REAL TIME MARKET THROUGH POWER EXCHANGES, DECEMBER 2021</b>			
<b>Sr.No</b>	<b>ACP</b>	<b>Price in IEX (₹/kWh)</b>	<b>Price in PXIL (₹/kWh)</b>
1	Minimum	0.95	-
2	Maximum	20.00	-
3	Weighted Average	3.77	-

*Source: IEX and PXIL*

<b>Table-8: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF IEX, DECEMBER 2021</b>			
<b>Sr.No</b>	<b>Term ahead contracts</b>	<b>Actual Scheduled Volume (MU)</b>	<b>Weighted Average Price (₹/kWh)</b>
1	Intra-Day Contracts	0.87	3.32
2	Day Ahead Contingency Contracts	72.90	4.18
3	Daily Contracts	276.00	3.32
	<b>Total</b>	<b>349.77</b>	<b>3.50</b>

Source: IEX

<b>Table-9: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF PXIL, DECEMBER 2021</b>			
<b>Sr.No</b>	<b>Term ahead contracts</b>	<b>Actual Scheduled Volume (MU)</b>	<b>Weighted Average Price (₹/kWh)</b>
1	Intra-Day Contracts	6.05	5.34
2	Day Ahead Contingency Contracts	253.58	4.13
3	Any Day(s) Contracts	3.60	3.10
	<b>Total</b>	<b>263.24</b>	<b>4.15</b>

Source: PXIL

<b>Table-10: VOLUME AND PRICE OF ELECTRICITY IN GREEN TERM AHEAD MARKET OF IEX, DECEMBER 2021</b>			
<b>Sr.No</b>	<b>Green Term ahead contracts</b>	<b>Actual Scheduled Volume (MU)</b>	<b>Weighted Average Price (₹/kWh)</b>
1	Intra-Day Contracts	4.33	3.80
2	Day Ahead Contingency Contracts	208.28	3.70
3	Daily Contracts	0.31	4.65
4	Weekly Contracts	0.65	4.65
	<b>Total</b>	<b>213.56</b>	<b>3.71</b>

Source: IEX

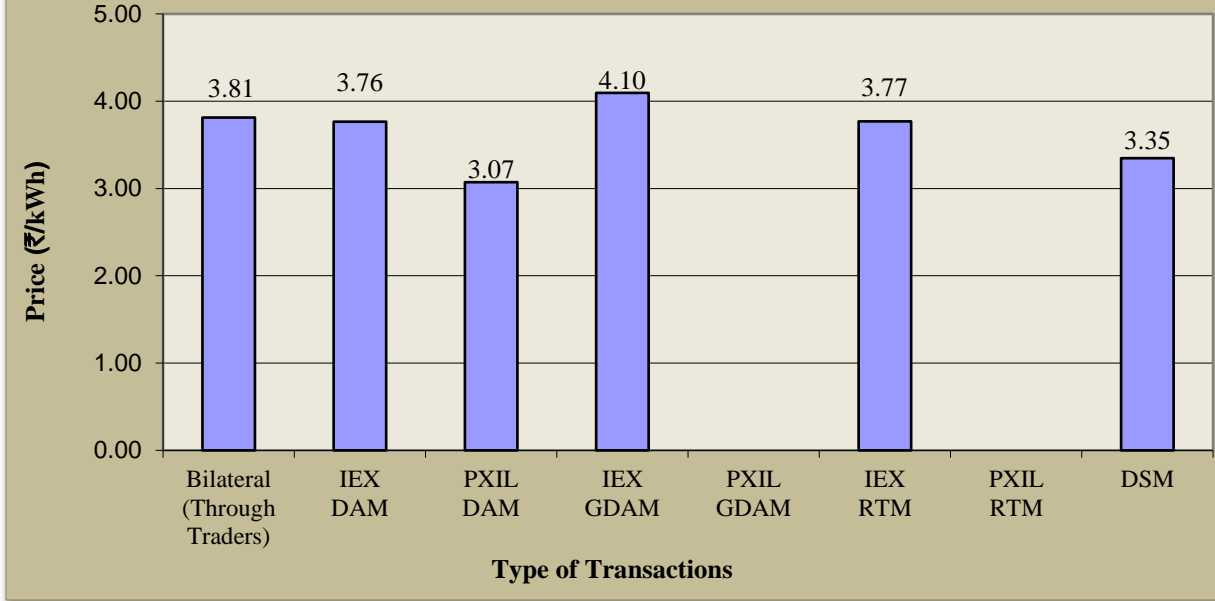
<b>Table-11: VOLUME AND PRICE OF ELECTRICITY IN GREEN TERM AHEAD MARKET OF PXIL, DECEMBER 2021</b>			
<b>Sr.No</b>	<b>Green Term ahead contracts</b>	<b>Actual Scheduled Volume (MU)</b>	<b>Weighted Average Price (₹/kWh)</b>
1	Intra-Day Contracts	1.55	6.66
2	Day Ahead Contingency Contracts	229.79	3.80
3	Any Day(s) Contracts	7.00	3.50
	<b>Total</b>	<b>238.34</b>	<b>3.81</b>

Source: PXIL

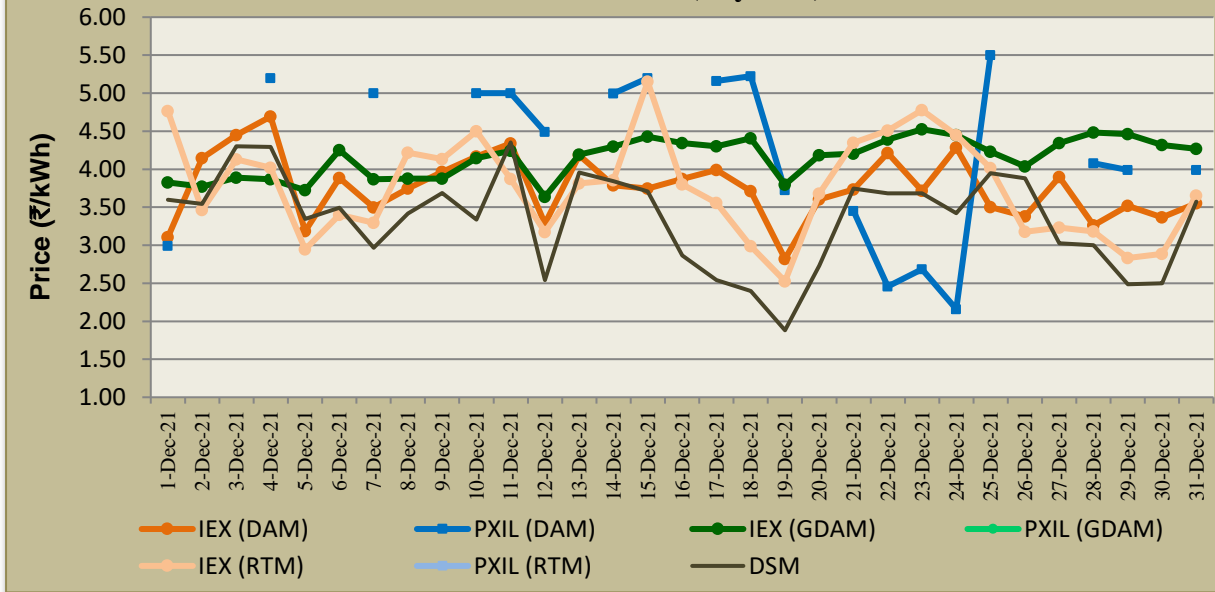
<b>Table-12: PRICE OF ELECTRICITY TRANSACTED THROUGH DSM, DECEMBER 2021</b>		
<b>Sr.No</b>	<b>Item</b>	<b>Price in All India Grid (₹/kWh)</b>
1	Minimum	0.00
2	Maximum	8.00
3	Average	3.35

Source: NLDC

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



**Figure-7: Weighted Average Price of Short-term Transactions of Electricity, December 2021 (Day-wise)**



**Note:** On PXIL, no transactions were recorded in DAM on 2<sup>nd</sup> – 3<sup>rd</sup>, 5<sup>th</sup> – 6<sup>th</sup>, 8<sup>th</sup> – 9<sup>th</sup>, 13<sup>th</sup>, 16<sup>th</sup>, 20<sup>th</sup>, 26<sup>th</sup> – 27<sup>th</sup> and 30<sup>th</sup> December 2021. Further, no electricity was transacted in G-DAM & RTM of PXIL during December 2021.

<b>Table-13: VOLUME OF ELECTRICITY SOLD THROUGH BILATERAL, DECEMBER 2021</b>		
<b>Name of the Entity</b>	<b>Volume of Sale (MUs)</b>	<b>% of Volume</b>
PUNJAB	649.25	10.61
JITPL	451.06	7.37
RPREL	441.88	7.22
DB POWER	421.52	6.89
DELHI	372.50	6.09
REGL	360.39	5.89
KARNATAKA	350.80	5.73
UTTAR PRADESH	345.06	5.64
CHHATTISGARH	242.53	3.96
RKM POWER	232.63	3.80
JAYPEE NIGRIE	231.52	3.78
HARYANA	198.51	3.25
ADHUNIK POWER LTD	146.27	2.39
DVC	138.49	2.26
WEST BENGAL	118.65	1.94
SEMBCORP	111.15	1.82
SKS POWER	106.04	1.73
ODISHA	96.49	1.58
JINDAL STAGE-II	93.04	1.52
MB POWER	84.91	1.39
J & K	65.09	1.06
JINDAL POWER	64.52	1.05
MP	63.51	1.04
BIHAR	61.57	1.01
ESSAR POWER	51.62	0.84
ADANIHB_SLR	43.89	0.72
RENEWJH_SLR	39.45	0.64
ARERJL_SLR	38.98	0.64
ONGC PALATANA	37.20	0.61
TELANGANA	35.79	0.59
NEEPCO STATIONS	34.89	0.57
TATA_SLR	28.70	0.47
DAGACHU	28.68	0.47
RENEWURJA_SLR	27.93	0.46
TEESTA STG3	27.29	0.45
GMR KAMALANGA	24.75	0.40
AHEJ3L_SOLAR	22.79	0.37
AHEJ2L_SOLAR	19.93	0.33
AHEJOL_S_FTG2	15.88	0.26
UTTARAKHAND	15.40	0.25
MAHARASHTRA	15.07	0.25
ADANI_SLR 4	14.53	0.24
AYANA_RP1	13.33	0.22
BALCO	11.46	0.19
HIMACHAL PRADESH	10.68	0.17
AHEJ4L_SOLAR	10.11	0.17
ASEJTL_SLR	8.97	0.15
SINGOLI BHATWARI HEP	8.48	0.14
ADANI_WIND	7.77	0.13

ADANIHB_WIND	7.29	0.12
JORETHANG	6.37	0.10
AZURE34_SLR	6.20	0.10
TASHIDENG HEP	6.09	0.10
JHABUA POWER_MP	6.09	0.10
LANKO_AMK	5.95	0.10
AHEJ4L_WIND	5.75	0.09
MEGHALAYA	4.65	0.08
KERALA	4.42	0.07
DIKCHU HEP	4.35	0.07
ANDHRA PRADESH	4.29	0.07
MANIPUR	2.77	0.05
AHEJ2L_WIND	2.33	0.04
AVAADASN_SLR	2.26	0.04
AHEJ3L_WIND	1.59	0.03
CONTINNUM PT	1.47	0.02
RAJASTHAN	1.26	0.02
GUJARAT	1.09	0.02
SORANG HEP	0.85	0.01
ACBIL	0.58	0.01
ARUNACHAL PRADESH	0.35	0.01
<b>Total</b>	<b>6116.92</b>	<b>100.00</b>
<b>Volume Sold by top 5 Regional Entities</b>	<b>2336.20</b>	<b>38.19</b>



**Table-14: VOLUME OF ELECTRICITY PURCHASED THROUGH BILATERAL, DECEMBER 2021**

<b>Name of the Entity</b>	<b>Volume of Purchase (MUs)</b>	<b>% of Volume</b>
GUJARAT	1241.35	20.29
MP	1227.10	20.06
ODISHA	533.04	8.71
RAJASTHAN	508.37	8.31
HIMACHAL PRADESH	417.40	6.82
UTTARAKHAND	371.36	6.07
MAHARASHTRA	341.79	5.59
HARYANA	238.95	3.91
WEST BENGAL	217.06	3.55
JHARKHAND	190.61	3.12
AMPS Hazira	159.51	2.61
DELHI	96.46	1.58
PUNJAB	92.26	1.51
MEGHALAYA	89.19	1.46
BIHAR	84.18	1.38
UTTAR PRADESH	72.97	1.19
CHHATTISGARH	42.12	0.69
GOA	39.64	0.65
NCR ALLAHABAD	37.20	0.61
KARNATAKA	27.51	0.45
TAMIL NADU	24.00	0.39
ANDHRA PRADESH	13.92	0.23
TELANGANA	13.61	0.22
NAGALAND	11.16	0.18
MANIPUR	9.36	0.15
NEP	5.88	0.10
ARUNACHAL PRADESH	5.70	0.09
ASSAM	2.44	0.04
SIKKIM	2.43	0.04
DVC	0.87	0.01
<b>TOTAL</b>	<b>6117.42</b>	<b>100.00</b>
<b>Volume Purchased by top 5 Regional Entities</b>	<b>3927.25</b>	<b>64.20</b>

**Table-15: VOLUME OF ELECTRICITY SOLD IN DAY AHEAD MARKET THROUGH POWER EXCHANGES, DECEMBER 2021**

<b>Name of the Entity</b>	<b>Volume of Sale (MUs)</b>	<b>% of Volume</b>
WEST BENGAL	1300.01	23.97
BIHAR	534.15	9.85
UTTAR PRADESH	401.54	7.40
CHHATTISGARH	328.73	6.06
ESSAR POWER	224.29	4.14
JINDAL STAGE-II	214.41	3.95
RAJASTHAN	198.47	3.66
JINDAL POWER	190.96	3.52
KARNATAKA	175.04	3.23
TEESTA STG3	154.72	2.85
MB POWER	154.58	2.85
ASSAM	138.88	2.56
KERALA	106.85	1.97
DELHI	103.23	1.90
NTPC STATIONS-SR	97.62	1.80
JAYPEE NIGRIE	97.31	1.79
HIMACHAL PRADESH	79.35	1.46
SEMBCORP	79.00	1.46
ODISHA	69.37	1.28
RKM POWER	67.98	1.25
ACBIL	66.97	1.23
MP	59.91	1.10
JITPL	58.45	1.08
NLC	46.29	0.85
RPREL	43.50	0.80
MAHARASHTRA	43.03	0.79
GOA	32.98	0.61
TELANGANA	32.03	0.59
ADHUNIK POWER LTD	31.88	0.59
MARUTI COAL	26.05	0.48
DVC	21.50	0.40
DB POWER	19.48	0.36
AD HYDRO	18.39	0.34
ANDHRA PRADESH	17.89	0.33
TASHIDENG HEP	17.31	0.32
REGL	17.01	0.31
KARCHAM WANGTOO	16.58	0.31
GMR KAMALANGA	14.52	0.27
JHABUA POWER_MP	14.08	0.26
JORETHANG	13.93	0.26
TRIPURA	10.47	0.19
SAINJ HEP	10.44	0.19
ONGC PALATANA	10.40	0.19
ARUNACHAL PRADESH	8.25	0.15
RGPPL	7.33	0.14
NEPAL(NVVN)	5.83	0.11
J & K	5.49	0.10
TAMIL NADU	5.44	0.10

DIKCHU HEP	4.82	0.09
JHARKHAND	4.46	0.08
GUJARAT	4.27	0.08
SINGOLI BHATWARI HEP	3.78	0.07
KSK MAHANADI	2.66	0.05
HARYANA	2.17	0.04
CHUZACHEN HEP	2.05	0.04
NAGALAND	1.44	0.03
SORANG HEP	1.30	0.02
RENEWJH_SLR	1.26	0.02
EMCO	1.00	0.02
NTPC STATIONS-NER	0.73	0.01
BALCO	0.64	0.01
DHARIWAL POWER	0.47	0.01
NTPC STATIONS-NR	0.32	0.01
MIZORAM	0.31	0.01
NHPC STATIONS	0.30	0.01
RENEWSW_SLR	0.16	0.003
NTPC STATIONS-ER	0.04	0.001
OSTRO	0.02	0.0003
<b>Total</b>	<b>5424.15</b>	<b>100.00</b>
<b>Volume sold by top 5 Regional Entities</b>	<b>2788.73</b>	<b>51.41</b>

<b>Table-16: VOLUME OF ELECTRICITY PURCHASED IN DAY AHEAD MARKET THROUGH POWER EXCHANGES, DECEMBER 2021</b>		
<b>Name of the Entity</b>	<b>Volume of Purchase (MUs)</b>	<b>% of Volume</b>
ANDHRA PRADESH	848.67	15.65
PUNJAB	835.93	15.41
TAMIL NADU	476.15	8.78
GUJARAT	441.93	8.15
J & K	436.62	8.05
HARYANA	432.45	7.97
RAJASTHAN	343.92	6.34
TELANGANA	331.74	6.12
MAHARASHTRA	288.60	5.32
UTTAR PRADESH	199.69	3.68
ODISHA	145.86	2.69
AMPS Hazira	100.57	1.85
UTTARAKHAND	94.14	1.74
MP	82.19	1.52
DELHI	80.21	1.48
NEPAL(NVVN)	69.03	1.27
HIMACHAL PRADESH	54.94	1.01
KARNATAKA	54.47	1.00
ASSAM	25.04	0.46
DADRA & NAGAR HAVELI	21.33	0.39
MEGHALAYA	16.97	0.31
DAMAN AND DIU	14.90	0.27
KERALA	14.41	0.27
GOA	6.48	0.12
SIKKIM	2.74	0.05
BIHAR	1.21	0.02
WEST BENGAL	1.11	0.02
RAIL	0.95	0.02
JHARKHAND	0.52	0.01
NTPL	0.44	0.01
MANIPUR	0.36	0.01
NTPC STATIONS-WR	0.26	0.005
CHANDIGARH	0.22	0.004
CHHATTISGARH	0.11	0.002
<b>TOTAL</b>	<b>5424.15</b>	<b>100.00</b>
<b>Volume purchased by top 5 Regional Entities</b>	<b>3039.28</b>	<b>56.03</b>

<b>Table-17: VOLUME OF ELECTRICITY SOLD IN GREEN DAY AHEAD MARKET THROUGH POWER EXCHANGES, DECEMBER 2021</b>		
<b>Name of the Entity</b>	<b>Volume of Sale (MUs)</b>	<b>% of Volume</b>
KARNATAKA	76.86	48.90
TELANGANA	33.46	21.29
MP	14.44	9.18
J & K	9.70	6.17
AZURE43_SLR	6.82	4.34
RENEWJH_SLR	6.45	4.10
ANDHRA PRADESH	2.72	1.73
RENEWSW_SLR	1.68	1.07
ADANI_WIND	1.06	0.67
ADANIHB_SLR	1.01	0.64
RAJASTHAN	0.93	0.59
CONTINNUM PT	0.64	0.41
OSTRO	0.62	0.40
AHEJ3L_SOLAR	0.60	0.38
UTTARAKHAND	0.16	0.10
HIMACHAL PRADESH	0.04	0.03
<b>Total</b>	<b>157.20</b>	<b>100.00</b>
<b>Volume sold by top 5 Regional Entities</b>	<b>141.29</b>	<b>89.88</b>

<b>Table-18: VOLUME OF ELECTRICITY PURCHASED IN GREEN DAY AHEAD MARKET THROUGH POWER EXCHANGES, DECEMBER 2021</b>		
<b>Name of the Entity</b>	<b>Volume of Purchase (MUs)</b>	<b>% of Volume</b>
DADRA & NAGAR HAVELI	60.19	38.29
DELHI	32.32	20.56
ASSAM	12.62	8.03
ODISHA	12.54	7.97
HARYANA	12.32	7.84
WEST BENGAL	9.37	5.96
MAHARASHTRA	5.40	3.43
KERALA	5.30	3.37
TAMIL NADU	2.43	1.55
DAMAN AND DIU	1.59	1.01
TELANGANA	1.31	0.83
UTTAR PRADESH	0.96	0.61
KARNATAKA	0.50	0.32
PUNJAB	0.23	0.14
DVC	0.12	0.08
ANDHRA PRADESH	0.01	0.01
BIHAR	0.004	0.003
<b>TOTAL</b>	<b>157.20</b>	<b>100.00</b>
<b>Volume purchased by top 5 Regional Entities</b>	<b>129.99</b>	<b>82.69</b>

<b>Table-19: VOLUME OF ELECTRICITY SOLD IN REAL TIME MARKET THROUGH POWER EXCHANGES, DECEMBER 2021</b>		
<b>Name of the Entity</b>	<b>Volume of Sale (MUs)</b>	<b>% of Volume</b>
MP	199.26	13.18
BIHAR	127.03	8.40
UTTAR PRADESH	125.69	8.31
ODISHA	101.49	6.71
KARNATAKA	84.51	5.59
WEST BENGAL	82.76	5.47
CHHATTISGARH	69.35	4.59
NLC	68.29	4.52
RAJASTHAN	57.05	3.77
NEEPCO STATIONS	53.87	3.56
TRIPURA	52.27	3.46
RKM POWER	47.32	3.13
KERALA	43.88	2.90
TELANGANA	40.39	2.67
NTPC STATIONS-SR	39.50	2.61
DELHI	36.68	2.43
JINDAL STAGE-II	29.66	1.96
NTPC STATIONS-WR	21.69	1.43
NTPC STATIONS-NER	19.81	1.31
SEMBCORP	16.96	1.12
JITPL	16.36	1.08
SASAN UMPP	15.30	1.01
MAHARASHTRA	14.67	0.97
JHABUA POWER_MP	14.04	0.93
JINDAL POWER	13.19	0.87
NTPC STATIONS-ER	11.90	0.79
HIMACHAL PRADESH	9.79	0.65
NTPC STATIONS-NR	8.24	0.54
DB POWER	7.45	0.49
ANDHRA PRADESH	7.29	0.48
ASSAM	7.14	0.47
MANIPUR	6.25	0.41
RPREL	6.07	0.40
MB POWER	5.97	0.39
NPGC	5.05	0.33
JHARKHAND	4.78	0.32
GUJARAT	3.97	0.26
REGL	3.24	0.21
HARYANA	3.24	0.21
EMCO	3.09	0.20
ACBIL	2.99	0.20
ONGC PALATANA	2.97	0.20
GMR KAMALANGA	2.88	0.19
MTPS II	2.59	0.17
ADHUNIK POWER LTD	2.36	0.16
SORANG HEP	2.10	0.14
BALCO	1.59	0.10

J & K	1.54	0.10
SIKKIM	1.45	0.10
JORETHANG	1.44	0.10
TAMIL NADU	0.98	0.06
DIKCHU HEP	0.96	0.06
SINGOLI BHATWARI HEP	0.89	0.06
MARUTI COAL	0.82	0.05
KSK MAHANADI	0.48	0.03
KARCHAM WANGTOO	0.29	0.02
TASHIDENG HEP	0.22	0.01
OSTRO	0.20	0.01
DADRA & NAGAR HAVELI	0.20	0.01
ARUNACHAL PRADESH	0.17	0.01
RGPPL_Others	0.17	0.01
ESSAR POWER	0.16	0.01
RGPPL	0.13	0.01
TEESTA STG3	0.10	0.01
DVC	0.08	0.01
SAINJ HEP	0.06	0.004
AYANA_RP1	0.05	0.003
RENEWJH_SLR	0.03	0.002
AD HYDRO	0.02	0.001
UTTARAKHAND	0.01	0.001
DHARIWAL POWER	0.01	0.001
CHUZACHEN HEP	0.01	0.0005
<b>Total</b>	<b>1512.39</b>	<b>100.00</b>
<b>Volume sold by top 5 Regional Entities</b>	<b>637.98</b>	<b>42.18</b>

<b>Table-20: VOLUME OF ELECTRICITY PURCHASED IN REAL TIME MARKET THROUGH POWER EXCHANGES, DECEMBER 2021</b>		
<b>Name of the Entity</b>	<b>Volume of Purchase (MUs)</b>	<b>% of Volume</b>
J & K	444.53	29.39
TELANGANA	160.33	10.60
RAJASTHAN	147.78	9.77
MAHARASHTRA	87.52	5.79
ODISHA	87.38	5.78
ANDHRA PRADESH	81.67	5.40
UTTAR PRADESH	73.29	4.85
GUJARAT	72.71	4.81
HARYANA	65.01	4.30
PUNJAB	63.72	4.21
TAMIL NADU	61.27	4.05
DELHI	32.30	2.14
WEST BENGAL	30.43	2.01
ASSAM	20.57	1.36
MP	18.31	1.21
HIMACHAL PRADESH	16.31	1.08
BIHAR	11.65	0.77
MANIPUR	9.16	0.61
KARNATAKA	6.24	0.41
SIKKIM	4.23	0.28
AMPS Hazira	3.27	0.22
UTTARAKHAND	3.04	0.20
JHARKHAND	2.86	0.19
KERALA	2.63	0.17
CHHATTISGARH	2.01	0.13
MEGHALAYA	0.85	0.06
GOA	0.78	0.05
DAMAN AND DIU	0.76	0.05
RAIL	0.38	0.02
JINDAL POWER	0.38	0.02
NAGALAND	0.35	0.02
MARUTI COAL	0.25	0.02
ARUNACHAL PRADESH	0.23	0.02
JINDAL STAGE-II	0.13	0.01
DADRA & NAGAR HAVELI	0.07	0.005
<b>TOTAL</b>	<b>1512.39</b>	<b>100.00</b>
<b>Volume purchased by top 5 Regional Entities</b>	<b>927.55</b>	<b>61.33</b>



**Table-21: VOLUME OF ELECTRICITY UNDER DRAWAL (EXPORTED) THROUGH DSM, DECEMBER 2021**

<b>Name of the Entity</b>	<b>Volume of Under drawal (MUs)</b>	<b>% of Volume</b>
MAHARASHTRA	130.11	6.30
NTPC STATIONS-WR	121.78	5.90
UTTAR PRADESH	102.77	4.98
GUJARAT	97.65	4.73
MP	78.00	3.78
CHUKHA HEP	71.86	3.48
KERALA	69.27	3.35
PUNJAB	67.25	3.26
NHPC STATIONS	63.08	3.05
KARNATAKA	61.29	2.97
PONDICHERRY	51.60	2.50
RAJASTHAN	49.38	2.39
SASAN UMPP	47.87	2.32
NTPC STATIONS-SR	47.42	2.30
NTPC STATIONS-NR	46.62	2.26
NTPC STATIONS-ER	45.11	2.18
HARYANA	44.80	2.17
ODISHA	37.08	1.80
ANDHRA PRADESH	34.68	1.68
WEST BENGAL	32.69	1.58
BIHAR	32.24	1.56
JHARKHAND	30.08	1.46
NLC	29.72	1.44
TAMIL NADU	27.86	1.35
J & K	25.14	1.22
AMPS Hazira	23.33	1.13
DELHI	23.06	1.12
CHHATTISGARH	22.77	1.10
GIWEL_BHUI	19.49	0.94
AGEMPL BHUI	17.23	0.83
DVC	16.75	0.81
SIKKIM	15.74	0.76
CHANDIGARH	15.24	0.74
GOA	15.05	0.73
BBMB	14.00	0.68
TRIPURA	12.67	0.61
ALFANAR_BHUI	12.23	0.59
UTTARAKHAND	12.00	0.58
HIMACHAL PRADESH	10.95	0.53
RKM POWER	10.64	0.52
ADANIHB_SLR	10.59	0.51
OSTRO	10.21	0.49
NEEPCO STATIONS	10.15	0.49
RENEW_BHUI	9.99	0.48
NEPAL(NVVN)	9.96	0.48
NPGC	9.52	0.46
RENEW_BHACHAU	8.99	0.44
ASSAM	8.51	0.41
BRBCL.NABINAGAR	7.57	0.37
NETCL VALLUR	7.43	0.36
NTPL	7.43	0.36
MAITHON POWER LTD	7.42	0.36
NJPC	7.03	0.34
BETAM_TCN	6.86	0.33
INOX_BHUI	6.85	0.33
JINDAL STAGE-II	6.37	0.31
TEHRI	6.31	0.31
MANGDECHU HEP	6.08	0.29
MB POWER	5.92	0.29
JAYPEE NIGRIE	5.83	0.28
GIWEL_TCN	5.81	0.28
ACBIL	5.44	0.26
CLEAN_SLR	5.03	0.24
JINDAL POWER	4.94	0.24

IGSTPS	4.80	0.23
GMR KAMALANGA	4.59	0.22
AZURE43_SLR	4.53	0.22
MIZORAM	4.42	0.21
LANKO_AMK	4.37	0.21
JHABUA POWER_MP	4.09	0.20
KARCHAM WANGTOO	4.01	0.19
JITPL	3.96	0.19
RENEWSW	3.79	0.18
NTPC_ANTP	3.72	0.18
BARC	3.67	0.18
MTPS II	3.36	0.16
ACME_SLR	3.35	0.16
EDEN_SLR	3.33	0.16
RPREL	3.33	0.16
MRPL	3.23	0.16
ORANGE_TCN	3.18	0.15
RAMPUR HEP	3.15	0.15
RAIL	3.14	0.15
KOTESHWAR	3.13	0.15
BALCO	3.06	0.15
TEESTA HEP	2.88	0.14
DB POWER	2.71	0.13
DADRA & NAGAR HAVELI	2.70	0.13
NSPCL	2.66	0.13
RENEWSW_SLR	2.66	0.13
SB_SLR	2.56	0.12
NTPC STATIONS-NER	2.47	0.12
BANGLADESH	2.33	0.11
RENEW_SLR_BKN	2.28	0.11
ACME_RUMS	2.26	0.11
MAHINDRA_RUMS	2.25	0.11
RENEWJH_SLR	2.17	0.10
MYTRAH_TCN	2.15	0.10
MEGHALAYA	2.14	0.10
AZURE_SLR	2.07	0.10
SBG_NPK	2.04	0.10
ESSAR POWER	2.03	0.10
SBG_PVGD	2.01	0.10
SB6_POKARAN	1.99	0.10
CGPL	1.95	0.09
THERMAL POWERTECH	1.95	0.09
KSK MAHANADI	1.92	0.09
RGPPL	1.92	0.09
ARINSUM_RUMS	1.89	0.09
MANIPUR	1.87	0.09
TELANGANA	1.86	0.09
SEMBCORP	1.83	0.09
NAGALAND	1.80	0.09
AHEJ3L_SOLAR	1.76	0.09
EMCO	1.75	0.08
RAP B	1.71	0.08
RANGIT HEP	1.70	0.08
ADHUNIK POWER LTD	1.60	0.08
TATA_ANTP	1.58	0.08
SBSR_SLR	1.48	0.07
SPRING_PUGALUR	1.43	0.07
TATA_PVGD	1.43	0.07
RAP C	1.39	0.07
DAMAN AND DIU	1.38	0.07
ESPL_RADHANESDA	1.36	0.07
SKS POWER	1.35	0.07
AZURE41_SLR	1.24	0.06
DHARIWAL POWER	1.16	0.06
FORTUMI_PVGD	1.16	0.06
TEESTA STG3	1.15	0.06
ONGC PALATANA	1.15	0.06
SPRNG_NPKUNTA	1.14	0.06

AVAADASN_SLR	1.10	0.05
TATA_SLR	1.10	0.05
FORTUM2_PVGD	1.06	0.05
OSTRO Hiriyur	1.02	0.05
ARERJL_SLR	0.98	0.05
AHSP_ANTP	0.96	0.05
TPREL_RADHANESDA	0.93	0.05
AYANA_RP1	0.92	0.04
ABSP_ANTP	0.92	0.04
FRV_NPK	0.91	0.04
AZURE_ANTP	0.87	0.04
AYANA_NPKUNTA	0.84	0.04
LOKTAK	0.80	0.04
SORANG HEP	0.80	0.04
AZURE34_SLR	0.79	0.04
RENEWURJA_SLR	0.77	0.04
RONGNICHU HEP	0.77	0.04
FRV_ANTP	0.76	0.04
AKSP_ANTP	0.75	0.04
GIPCL_RADHANESDA	0.74	0.04
RANGANADI HEP	0.73	0.04
SAINJ HEP	0.72	0.03
COASTGEN	0.68	0.03
AVAADA1_PVGD	0.66	0.03
ARUNACHAL PRADESH	0.57	0.03
CHUZACHEN HEP	0.57	0.03
ASEJTL_SLR	0.57	0.03
RENEW_SLR	0.54	0.03
AD HYDRO	0.53	0.03
AZURE_PVGD	0.52	0.03
NAPP	0.51	0.02
AVAADA2_PVGD	0.49	0.02
DIKCHU HEP	0.48	0.02
NEP	0.47	0.02
PARAM_PVGD	0.45	0.02
TASHIDENG HEP	0.44	0.02
PARE HEP	0.39	0.02
AVADARJHN_SLR	0.38	0.02
DOYANG HEP	0.37	0.02
ADY2_PVGD	0.36	0.02
SINGOLI BHATWARI HEP	0.35	0.02
ADY1_PVGD	0.34	0.02
ADY6_PVGD	0.30	0.01
ADY13_PVGD	0.29	0.01
ADY10_PVGD	0.28	0.01
ADY3_PVGD	0.28	0.01
VINDHYACHAL HVDC	0.27	0.01
YARROW_PVGD	0.25	0.01
JORETHANG	0.23	0.01
AKS_PVGD	0.19	0.01
ARS_PVGD	0.17	0.01
RENEW_PVGD	0.15	0.01
BHADRAVATHI HVDC	0.13	0.01
HVDC ALPD	0.09	0.004
IL&FS	0.07	0.003
NFF	0.06	0.003
KREDL_PVGD	0.04	0.002
HVDC PUS	0.04	0.002
DAGACHU	0.02	0.001
DCPP	0.01	0.0004
HVDC RAIGARH	0.01	0.0002
TALA HEP	0.003	0.0002
HVDC CHAMPA	0.002	0.0001
MEENAKSHI	0.00002	0.000001
SIMHAPURI	0.00001	0.000001
<b>Total</b>	<b>2065.03</b>	<b>100.00</b>
<b>Volume Exported by top 5 Regional Entities</b>	<b>530.32</b>	<b>25.68</b>

**Table-22: VOLUME OF ELECTRICITY OVER DRAWAL (IMPORTED) THROUGH DSM, DECEMBER 2021**

Name of the Entity	Volume of Over drawal (MUs)	% of Volume
NTPC STATIONS-WR	150.30	7.68
TALA HEP	106.53	5.44
RAJASTHAN	105.90	5.41
NTPC STATIONS-NR	93.53	4.78
NTPC STATIONS-ER	68.48	3.50
GUJARAT	60.13	3.07
UTTAR PRADESH	58.92	3.01
MP	55.14	2.82
HARYANA	55.10	2.82
PONDICHERRY	54.12	2.77
DVC	50.41	2.58
KERALA	47.79	2.44
MAHARASHTRA	41.59	2.13
KURICHU HEP	41.52	2.12
ANDHRA PRADESH	36.94	1.89
ODISHA	35.33	1.81
KARNATAKA	34.44	1.76
NLC	33.96	1.74
J & K	32.26	1.65
BIHAR	31.83	1.63
UTTARAKHAND	30.56	1.56
PUNJAB	29.88	1.53
WEST BENGAL	29.40	1.50
HIMACHAL PRADESH	27.07	1.38
CHHATTISGARH	24.67	1.26
AMPS Hazira	22.58	1.15
TAMIL NADU	17.92	0.92
THERMAL POWERTECH	17.81	0.91
CGPL	16.54	0.84
DELHI	15.73	0.80
JHARKHAND	15.14	0.77
SEMBCORP	14.79	0.76
AGEMPL BHUJ	13.17	0.67
RPREL	10.58	0.54
NHPC STATIONS	10.39	0.53
MYTRAH_TCIN	10.34	0.53
GIWEL_BHUJ	10.09	0.52
ASSAM	9.96	0.51
ARUNACHAL PRADESH	9.93	0.51
IGSTPS	9.38	0.48
GIWEL_TCIN	9.09	0.46
BALCO	8.59	0.44
GOA	8.50	0.43
ORANGE_TCIN	8.39	0.43
KAPP 3&4	8.10	0.41
ADANIHB_SLR	7.91	0.40
DADRA & NAGAR HAVELI	7.90	0.40
NTPC STATIONS-NER	7.66	0.39
TATA_SLR	7.41	0.38
IL&FS	7.22	0.37
RENEW_BHACHAU	7.06	0.36
RKM POWER	6.87	0.35
NSPCL	6.82	0.35
DAMAN AND DIU	6.82	0.35
AZURE43_SLR	6.79	0.35
RENEW_BHUJ	6.56	0.34
SB6_POKARAN	6.54	0.33
NTPC STATIONS-SR	6.51	0.33
RAP C	6.51	0.33
ARERJL_SLR	6.32	0.32
JHABUA POWER_MP	6.08	0.31
MANGDECHU HEP	6.07	0.31
OSTRO	6.03	0.31
RENEWURJA_SLR	5.86	0.30
MB POWER	5.75	0.29

MEGHALAYA	5.55	0.28
JINDAL STAGE-II	5.03	0.26
BRBCL,NABINAGAR	4.85	0.25
INOX_BHUJ	4.76	0.24
NEPAL(NVVN)	4.73	0.24
JITPL	4.72	0.24
BETAM_TCN	4.69	0.24
COASTGEN	4.67	0.24
CLEAN_SLR	4.66	0.24
ALFANAR_BHUJ	4.63	0.24
RAIL	4.53	0.23
SBG_NPK	4.48	0.23
BBMB	4.40	0.22
RENEWJH_SLR	4.38	0.22
TEESTA STG3	4.24	0.22
AHEJ3L_SOLAR	4.22	0.22
NTPC_ANTP	4.12	0.21
RGPPL	3.94	0.20
MAITHON POWER LTD	3.74	0.19
BANGLADESH	3.72	0.19
AYANA_RP1	3.60	0.18
DB POWER	3.53	0.18
CHANDIGARH	3.33	0.17
ARINSUM_RUMS	3.28	0.17
NPGC	3.25	0.17
EMCO	3.24	0.17
ADHUNIK POWER LTD	3.23	0.17
MANIPUR	3.23	0.16
JORETHANG	3.17	0.16
MRPL	3.13	0.16
SBG_PVGD	3.05	0.16
DAGACHU	2.96	0.15
ACME_RUMS	2.96	0.15
ESSAR POWER	2.94	0.15
RENEWSW_SLR	2.79	0.14
TASHIDENG HEP	2.77	0.14
AVAADASN_SLR	2.71	0.14
MAHINDRA_RUMS	2.71	0.14
EDEN_SLR	2.60	0.13
NAPP	2.59	0.13
AZURE_SLR	2.53	0.13
KARCHAM WANGTOO	2.53	0.13
RENEW_SLR_BKN	2.50	0.13
GMR KAMALANGA	2.47	0.13
ACME_SLR	2.39	0.12
ESPL_RADHANESDA	2.36	0.12
NEEPCO STATIONS	2.34	0.12
RENEWSW	2.27	0.12
JINDAL POWER	2.21	0.11
SB_SLR	2.07	0.11
AZURE34_SLR	2.00	0.10
AZURE41_SLR	1.96	0.10
GIPCL_RADHANESDA	1.95	0.10
ACBIL	1.95	0.10
TEHRI	1.83	0.09
SASAN UMPP	1.81	0.09
TELANGANA	1.73	0.09
MTPS II	1.70	0.09
RANGANADI HEP	1.65	0.08
FORTUM1_PVGD	1.57	0.08
NEP	1.45	0.07
TATA_ANTP	1.41	0.07
TATA_PVGD	1.31	0.07
TPREL_RADHANESDA	1.29	0.07
NJPC	1.28	0.07
KSK MAHANADI	1.23	0.06
ASEJTL_SLR	1.22	0.06
OSTRO Hiriyur	1.18	0.06

ABSP_ANTP	1.15	0.06
AKSP_ANTP	1.15	0.06
SPRING_PUGALUR	1.11	0.06
SIKKIM	1.09	0.06
AHSP_ANTP	1.09	0.06
DGEN MEGA POWER	1.09	0.06
AVAADA1_PVGD	1.08	0.05
SBSR_SLR	1.07	0.05
RAP B	1.06	0.05
LANKO_AMK	1.04	0.05
CHUKHA HEP	1.03	0.05
RANGIT HEP	1.02	0.05
NAGALAND	0.97	0.05
SPRNG_NPKUNTA	0.94	0.05
KOTESHWAR	0.94	0.05
DIKCHU HEP	0.91	0.05
TRIPURA	0.91	0.05
PARAM_PVGD	0.82	0.04
DHARIWAL POWER	0.80	0.04
HVDC CHAMPA	0.77	0.04
SKS POWER	0.72	0.04
FRV_ANTP	0.71	0.04
AYANA_NPKUNTA	0.71	0.04
FRV_NPK	0.70	0.04
SORANG HEP	0.67	0.03
RENEW_SLR	0.64	0.03
AVADARJHN_SLR	0.64	0.03
AZURE_ANTP	0.61	0.03
MEENAKSHI	0.61	0.03
KREDL_PVGD	0.59	0.03
FORTUM2_PVGD	0.58	0.03
MIZORAM	0.57	0.03
JAYPEE NIGRIE	0.56	0.03
TRN ENERGY	0.55	0.03
AVAADA2_PVGD	0.55	0.03
AD HYDRO	0.53	0.03
NFF	0.51	0.03
LANKO KONDAPALLI	0.45	0.02
RONGNICHU HEP	0.40	0.02
SIMHAPURI	0.39	0.02
ONGC PALATANA	0.35	0.02
HVDC RAIGARH	0.30	0.02
RAMPUR HEP	0.30	0.02
CHUZACHEN HEP	0.28	0.01
AZURE_PVGD	0.27	0.01
SAINJ HEP	0.22	0.01
DOYANG HEP	0.21	0.01
AKS_PVGD	0.20	0.01
HVDC PUS	0.20	0.01
ADY13_PVGD	0.19	0.01
YARROW_PVGD	0.19	0.01
RENEW_PVGD	0.18	0.01
ARS_PVGD	0.17	0.01
ADY3_PVGD	0.17	0.01
ADY6_PVGD	0.16	0.01
LOKTAK	0.15	0.01
ADY10_PVGD	0.15	0.01
PARE HEP	0.14	0.01
SINGOLI BHATWARI HEP	0.13	0.01
HVDC ALPD	0.11	0.01
ADY1_PVGD	0.10	0.005
ADY2_PVGD	0.10	0.005
DCPP	0.06	0.003
TEESTA HEP	0.02	0.001
BHADRAVATHI HVDC	0.002	0.0001
LANCO BUDHIL	0.0003	0.00001
<b>TOTAL</b>	<b>1956.87</b>	<b>100.00</b>
<b>Volume Imported by top 5 Regional Entities</b>	<b>524.74</b>	<b>26.82</b>

<b>Table-23: TOTAL VOLUME OF NET SHORT-TERM TRANSACTIONS OF ELECTRICITY (REGIONAL ENTITY-WISE), DECEMBER 2021</b>		
<b>S. No.</b>	<b>Name of the Entity</b>	<b>Total volume of net short-term transactions of electricity*</b>
1	GUJARAT	1709.15
2	MP	967.61
3	ANDHRA PRADESH	914.35
4	J & K	806.45
5	RAJASTHAN	798.88
6	MAHARASHTRA	562.01
7	HARYANA	555.11
8	TAMIL NADU	547.50
9	ODISHA	509.71
10	UTTARAKHAND	471.54
11	HIMACHAL PRADESH	404.91
12	TELANGANA	365.19
13	PUNJAB	305.51
14	AMPS Hazira	262.60
15	JHARKHAND	169.81
16	TALA HEP	106.53
17	MEGHALAYA	105.76
18	DADRA & NAGAR HAVELI	86.60
19	NEPAL(NVVN)	57.97
20	KURICHU HEP	41.52
21	NTPC STATIONS-NR	38.36
22	NCR ALLAHABAD	37.20
23	DAMAN AND DIU	22.69
24	THERMAL POWERTECH	15.86
25	CGPL	14.58
26	NTPC STATIONS-ER	11.42
27	MANIPUR	11.22
28	NAGALAND	9.25
29	MYTRAH_TCN	8.19
30	KAPP 3&4	8.10
31	GOA	7.37
32	IL&FS	7.15
33	NTPC STATIONS-WR	7.09
34	NEP	6.85
35	ARUNACHAL PRADESH	6.52
36	ORANGE_TCN	5.20
37	RAP C	5.12
38	IGSTPS	4.58
39	SB6_POKARAN	4.56
40	NSPCL	4.16
41	COASTGEN	3.98
42	GIWEL_TCN	3.28
43	RAIL	2.72
44	PONDICHERRY	2.52
45	SBG_NPK	2.45
46	NAPP	2.08
47	BANGLADESH	1.39
48	ARINSUM_RUMS	1.38
49	GIPCL_RADHANESDA	1.21
50	DGEN MEGA POWER	1.09
51	SBG_PVGD	1.04
52	ESPL_RADHANESDA	1.00
53	RANGANADI HEP	0.92
54	HVDC CHAMPA	0.77
55	AZURE41_SLR	0.71
56	ACME_RUMS	0.70
57	MEENAKSHI	0.61
58	KREDL_PVGD	0.55

59	TRN ENERGY	0.55
60	AZURE_SLR	0.46
61	MAHINDRA_RUMS	0.46
62	LANKO KONDAPALLI	0.45
63	NFF	0.45
64	AVAADA1_PVGD	0.42
65	FORTUM1_PVGD	0.41
66	AKSP_ANTP	0.40
67	NTPC_ANTP	0.40
68	SIMHAPURI	0.39
69	PARAM_PVGD	0.37
70	TPREL_RADHANESDA	0.36
71	HVDC RAIGARH	0.30
72	AVADARJHN_SLR	0.26
73	ABSP_ANTP	0.23
74	RENEW_SLR_BKN	0.21
75	HVDC PUS	0.16
76	OSTRO Hiriyur	0.16
77	AHSP_ANTP	0.13
78	RENEW_SLR	0.11
79	AVAADA2_PVGD	0.06
80	DCPP	0.06
81	RENEW_PVGD	0.03
82	HVDC ALPD	0.02
83	ARS_PVGD	0.01
84	AKS_PVGD	0.01
85	LANCO BUDHIL	0.0003
86	MANGDECHU HEP	-0.02
87	FRV_ANTP	-0.04
88	YARROW_PVGD	-0.06
89	MRPL	-0.10
90	ADY13_PVGD	-0.10
91	ADY3_PVGD	-0.11
92	TATA_PVGD	-0.12
93	BHADRAVATHI HVDC	-0.12
94	AYANA_NPKUNTA	-0.13
95	ADY10_PVGD	-0.13
96	ADY6_PVGD	-0.14
97	DOYANG HEP	-0.15
98	TATA_ANTP	-0.16
99	RGPPL_Others	-0.17
100	SPRNG_NPKUNTA	-0.20
101	FRV_NPK	-0.21
102	ADY1_PVGD	-0.24
103	AZURE_PVGD	-0.25
104	PARE HEP	-0.25
105	ADY2_PVGD	-0.26
106	AZURE_ANTP	-0.26
107	VINDHYACHAL HVDC	-0.27
108	SPRING PUGALUR	-0.33
109	CLEAN_SLR	-0.37
110	RONGNICHU HEP	-0.37
111	SBSR_SLR	-0.41
112	FORTUM2_PVGD	-0.48
113	SB_SLR	-0.48
114	LOKTAK	-0.65
115	RAP B	-0.65
116	AVAADASN_SLR	-0.65
117	RANGIT HEP	-0.68
118	EDEN_SLR	-0.74
119	DHARIWAL POWER	-0.85
120	ACME_SLR	-0.96
121	RENEWSW	-1.52



122	AHEJ3L_WIND	-1.59
123	RENEWSW_SLR	-1.71
124	RENEW_BHACHAU	-1.93
125	INOX_BHUJ	-2.09
126	CONTINNUM PT	-2.11
127	BETAM_TCN	-2.17
128	KOTESHWAR	-2.19
129	AHEJ2L_WIND	-2.33
130	CHUZACHEN HEP	-2.35
131	EMCO	-2.61
132	BRBCL,NABINAGAR	-2.72
133	RAMPUR HEP	-2.85
134	TEESTA HEP	-2.86
135	RENEW_BHUJ	-3.43
136	BARC	-3.67
137	MAITHON POWER LTD	-3.69
138	KSK MAHANADI	-3.83
139	AGEMPL BHUJ	-4.06
140	MIZORAM	-4.17
141	MTPS II	-4.25
142	SORANG HEP	-4.38
143	TEHRI	-4.48
144	AZURE43_SLR	-4.56
145	AZURE34_SLR	-5.00
146	OSTRO	-5.03
147	RGPPL	-5.44
148	AHEJ4L_WIND	-5.75
149	NJPC	-5.75
150	SIKKIM	-6.69
151	NTPL	-6.99
152	ADANIHB_WIND	-7.29
153	NETCL VALLUR	-7.43
154	ALFANAR_BHUJ	-7.60
155	BALCO	-8.16
156	ASEJTL_SLR	-8.32
157	ADANI_WIND	-8.82
158	LANKO_AMK	-9.28
159	GIWEL_BHUJ	-9.39
160	BBMB	-9.60
161	DIKCHU HEP	-9.70
162	AHEJ4L_SOLAR	-10.11
163	AYANA_RP1	-10.70
164	SAINJ HEP	-11.00
165	NPGC	-11.33
166	CHANDIGARH	-11.69
167	SINGOLI BHATWARI HEP	-13.37
168	ADANI_SLR 4	-14.53
169	NTPC STATIONS-NER	-15.34
170	AHEJOL_S_FTG2	-15.88
171	KARCHAM WANGTOO	-18.35
172	AD HYDRO	-18.42
173	JORETHANG	-18.80
174	AHEJ2L_SOLAR	-19.93
175	AHEJ3L_SOLAR	-20.93
176	TASHIDENG HEP	-21.30
177	TATA_SLR	-22.39
178	RENEWURJA_SLR	-22.83
179	DAGACHU	-25.73
180	MARUTI COAL	-26.62
181	JHABUA POWER_MP	-32.21
182	ARERJL_SLR	-33.64
183	GMR KAMALANGA	-44.28
184	RENEWJH_SLR	-44.97

185	ADANIHB_SLR	-47.58
186	ONGC PALATANA	-51.37
187	NHPC STATIONS	-52.99
188	SASAN UMPP	-61.36
189	CHUKHA HEP	-70.83
190	ACBIL	-74.04
191	TRIPURA	-74.50
192	ASSAM	-83.89
193	NEEPCO STATIONS	-96.57
194	SKS POWER	-106.68
195	NLC	-110.34
196	DVC	-125.42
197	KERALA	-154.30
198	NTPC STATIONS-SR	-178.02
199	ADHUNIK POWER LTD	-178.87
200	TEESTA STG3	-179.03
201	SEMBCORP	-194.14
202	MB POWER	-245.63
203	JINDAL POWER	-271.03
204	ESSAR POWER	-275.16
205	DELHI	-278.45
206	JAYPEE NIGRIE	-334.10
207	JINDAL STAGE-II	-338.33
208	RKM POWER	-351.70
209	REGL	-380.64
210	DB POWER	-447.62
211	RPREL	-484.19
212	JITPL	-525.11
213	UTTAR PRADESH	-569.24
214	CHHATTISGARH	-594.47
215	KARNATAKA	-625.35
216	BIHAR	-626.11
217	WEST BENGAL	-1246.74
* 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		

<b>Table-24: DETAILS OF CONGESTION IN POWER EXCHANGES, DECEMBER 2021</b>							
	<b>Details of Congestion</b>	<b>Day Ahead Market</b>		<b>Green Day Ahead Market</b>		<b>Real Time Market</b>	
		<b>IEX</b>	<b>PXIL</b>	<b>IEX</b>	<b>PXIL</b>	<b>IEX</b>	<b>PXIL</b>
A	Unconstrained Cleared Volume (MUs)	5423.27	0.88	157.20	0.00	1512.45	0.00
B	Actual Cleared Volume and hence scheduled (MUs)	5423.27	0.88	157.20	0.00	1512.39	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	0.06	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
E	Volume of electricity that could not be cleared as % to Unconstrained Cleared Volume	0.00%	0.00%	0.00%	0.00%	0.004%	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%	0.13%	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%
	6.00 - 12.00 hours	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%
	12.00 - 18.00 hours	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%
* This power would have been scheduled had there been no congestion							
Source: IEX, PXIL & NLDC							

**Table-25: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY IN INDIA (DAY-WISE)  
(MUs), DECEMBER 2021**

Date	Bilateral		Day Ahead Market <sup>#</sup>		Green Day Ahead Market <sup>#</sup>		Real Time Market <sup>#</sup>		Deviation Settlement (Over Drawl + Under Generation)	Total Electricity Generation (MU) as given at CEA Website*
	Through Traders and PXs**	Direct	IEX	PXIL	IEX	PXIL	IEX	PXIL		
1-Dec-21	102.78	57.99	161.46	0.02	5.55	0.00	54.81	0.00	72.96	3241.24
2-Dec-21	101.19	59.04	155.88	0.00	5.37	0.00	63.06	0.00	70.30	3192.72
3-Dec-21	101.66	58.87	163.69	0.00	5.86	0.00	67.45	0.00	65.93	3248.89
4-Dec-21	110.20	62.29	174.59	0.01	6.54	0.00	54.04	0.00	63.28	3267.56
5-Dec-21	108.32	62.27	183.68	0.00	5.76	0.00	44.70	0.00	61.02	3194.44
6-Dec-21	113.69	63.87	193.06	0.00	4.92	0.00	52.79	0.00	61.83	3306.05
7-Dec-21	112.95	58.92	195.68	0.01	6.72	0.00	51.54	0.00	62.76	3357.62
8-Dec-21	121.44	59.39	209.33	0.00	7.32	0.00	49.58	0.00	62.38	3361.47
9-Dec-21	131.82	59.33	189.90	0.00	7.52	0.00	46.51	0.00	61.37	3388.52
10-Dec-21	134.89	59.37	186.76	0.02	6.30	0.00	45.68	0.00	64.06	3359.05
11-Dec-21	153.52	59.72	177.29	0.02	5.27	0.00	44.58	0.00	59.59	3349.77
12-Dec-21	142.77	63.80	167.56	0.02	7.75	0.00	45.52	0.00	60.83	3221.89
13-Dec-21	144.20	64.04	177.18	0.00	6.08	0.00	50.87	0.00	66.42	3379.01
14-Dec-21	145.66	63.98	173.42	0.01	4.83	0.00	46.94	0.00	63.26	3430.38
15-Dec-21	135.33	64.36	171.26	0.01	3.96	0.00	48.64	0.00	61.77	3412.40
16-Dec-21	133.95	65.44	172.99	0.00	4.76	0.00	46.84	0.00	61.92	3401.20
17-Dec-21	129.09	63.65	174.29	0.02	4.91	0.00	48.70	0.00	63.24	3401.68
18-Dec-21	132.35	64.84	182.06	0.01	4.57	0.00	38.16	0.00	63.70	3371.72
19-Dec-21	133.17	64.72	155.60	0.05	6.24	0.00	33.95	0.00	65.25	3246.86
20-Dec-21	144.28	64.52	175.34	0.00	4.85	0.00	38.50	0.00	62.90	3478.88
21-Dec-21	149.58	63.64	164.25	0.09	4.36	0.00	48.00	0.00	61.47	3757.19
22-Dec-21	146.07	62.88	167.35	0.28	3.87	0.00	51.78	0.00	59.04	3678.95
23-Dec-21	153.98	65.12	172.69	0.17	3.55	0.00	42.60	0.00	64.71	3712.53
24-Dec-21	143.74	64.90	170.64	0.11	3.56	0.00	47.63	0.00	61.67	3710.75
25-Dec-21	139.00	64.65	182.44	0.01	4.01	0.00	48.79	0.00	60.37	3691.02
26-Dec-21	143.28	63.81	169.20	0.00	4.99	0.00	43.88	0.00	62.86	3553.35
27-Dec-21	145.10	66.22	170.98	0.00	4.25	0.00	43.10	0.00	67.09	3589.32
28-Dec-21	150.52	66.42	161.67	0.01	3.35	0.00	59.52	0.00	71.58	3502.86
29-Dec-21	152.59	63.66	182.79	0.04	3.59	0.00	55.71	0.00	73.23	3419.00
30-Dec-21	152.09	64.58	172.64	0.00	3.58	0.00	52.52	0.00	75.67	3373.33
31-Dec-21	157.34	64.59	167.60	0.01	2.99	0.00	46.02	0.00	78.51	3480.73
<b>Total</b>	<b>4166.54</b>	<b>1950.87</b>	<b>5423.27</b>	<b>0.88</b>	<b>157.20</b>	<b>0.00</b>	<b>1512.39</b>	<b>0.00</b>	<b>2010.98</b>	<b>106080.38</b>
<i>Source: NLDC</i>										
<i>* Gross Electricity Generation excluding electricity generation from renewables and captive power plants.</i>										
<i>** The volume of bilateral through PXs represents the volume through term-ahead contracts.</i>										
<i># Scheduled volume of all the bid areas.</i>										

**Table-26(a): PRICE OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (DAY-WISE) (₹/kWh),  
DECEMBER 2021**

Market Segment	Day ahead market of IEX			Day ahead market of PXIL			Green Day ahead market of IEX			Green Day ahead market of PXIL		
	Minimum ACP	Maximum ACP	Weighted Average Price*	Minimum ACP	Maximum ACP	Weighted Average Price*	Minimum ACP	Maximum ACP	Weighted Average Price*	Minimum ACP	Maximum ACP	Weighted Average Price*
1-Dec-21	1.72	6.04	3.10	2.99	2.99	2.99	3.40	13.90	3.83	-	-	-
2-Dec-21	1.70	18.00	4.15	-	-	-	3.40	6.00	3.77	-	-	-
3-Dec-21	2.00	19.02	4.45	-	-	-	3.50	10.00	3.89	-	-	-
4-Dec-21	1.99	20.00	4.69	5.20	5.20	5.20	3.50	5.90	3.87	-	-	-
5-Dec-21	1.50	6.00	3.18	-	-	-	3.30	5.30	3.73	-	-	-
6-Dec-21	1.66	10.04	3.89	-	-	-	3.50	7.30	4.25	-	-	-
7-Dec-21	1.80	8.52	3.50	5.00	5.00	5.00	3.04	6.00	3.87	-	-	-
8-Dec-21	1.80	10.00	3.75	-	-	-	3.39	6.00	3.88	-	-	-
9-Dec-21	1.80	8.10	3.97	-	-	-	3.39	6.00	3.88	-	-	-
10-Dec-21	1.80	12.05	4.17	5.00	5.00	5.00	3.50	5.80	4.15	-	-	-
11-Dec-21	2.00	14.04	4.34	5.00	5.00	5.00	3.60	5.60	4.24	-	-	-
12-Dec-21	1.99	6.10	3.28	4.49	4.49	4.49	3.30	5.30	3.64	-	-	-
13-Dec-21	2.00	8.07	4.18	-	-	-	3.50	5.80	4.19	-	-	-
14-Dec-21	2.00	8.00	3.79	5.00	5.00	5.00	3.70	6.02	4.30	-	-	-
15-Dec-21	1.80	7.15	3.75	5.20	5.20	5.20	3.70	6.23	4.43	-	-	-
16-Dec-21	1.80	8.00	3.87	-	-	-	3.60	6.23	4.34	-	-	-
17-Dec-21	1.74	8.15	3.99	5.16	5.16	5.16	3.50	6.27	4.30	-	-	-
18-Dec-21	1.70	9.11	3.71	5.18	5.25	5.22	3.50	10.00	4.41	-	-	-
19-Dec-21	1.64	5.14	2.82	3.20	3.99	3.73	3.29	6.00	3.80	-	-	-
20-Dec-21	1.47	8.52	3.60	-	-	-	3.50	6.10	4.18	-	-	-
21-Dec-21	1.64	8.53	3.73	2.94	3.70	3.45	3.50	5.30	4.21	-	-	-
22-Dec-21	1.90	10.00	4.21	1.85	3.76	2.46	3.51	5.30	4.39	-	-	-
23-Dec-21	1.58	8.92	3.72	2.12	5.10	2.69	3.70	6.00	4.53	-	-	-
24-Dec-21	1.90	10.02	4.28	2.16	2.16	2.16	3.70	5.60	4.45	-	-	-
25-Dec-21	1.90	5.99	3.50	5.50	5.50	5.50	3.70	5.52	4.23	-	-	-
26-Dec-21	1.98	5.52	3.38	-	-	-	3.70	4.90	4.04	-	-	-
27-Dec-21	1.58	6.35	3.90	-	-	-	3.70	5.60	4.34	-	-	-
28-Dec-21	1.47	5.50	3.26	4.06	4.10	4.08	3.55	5.45	4.48	-	-	-
29-Dec-21	1.74	6.25	3.52	3.99	4.00	3.99	3.70	5.20	4.46	-	-	-
30-Dec-21	1.70	6.39	3.37	-	-	-	3.55	5.50	4.32	-	-	-
31-Dec-21	1.80	6.48	3.55	3.99	3.99	3.99	3.50	5.20	4.27	-	-	-
	<b>1.47#</b>	<b>20.00#</b>	<b>3.76</b>	<b>1.85#</b>	<b>5.50#</b>	<b>3.07</b>	<b>3.04#</b>	<b>13.90#</b>	<b>4.10</b>	-	-	-

Source: IEX and PXIL

Note: GDAM was introduced on only IEX from 27th October 2021 onwards

\* 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-26(b): PRICE OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (DAY-WISE) (₹/kWh),  
DECEMBER 2021**

Market Segment	Real Time market of IEX			Real Time market of PXIL			Under Drawl/Over Drawl from the Grid (DSM)		
	Date	Minimum ACP	Maximum ACP	Weighted Average Price*	Minimum ACP	Maximum ACP	Weighted Average Price*	All India Grid	
Minimum Price								Maximum Price	Average Price**
1-Dec-21	1.33	20.00	4.77	-	-	-	0.00	8.00	3.60
2-Dec-21	1.70	5.50	3.46	-	-	-	0.00	7.75	3.54
3-Dec-21	1.58	15.00	4.13	-	-	-	0.00	8.00	4.30
4-Dec-21	2.04	8.52	4.02	-	-	-	0.00	7.78	4.29
5-Dec-21	1.50	5.50	2.94	-	-	-	0.00	8.00	3.34
6-Dec-21	1.13	5.00	3.40	-	-	-	0.00	6.66	3.49
7-Dec-21	1.29	6.52	3.30	-	-	-	0.00	7.71	2.97
8-Dec-21	1.56	18.00	4.22	-	-	-	0.00	8.00	3.42
9-Dec-21	2.03	18.00	4.13	-	-	-	0.00	6.95	3.69
10-Dec-21	1.73	20.00	4.50	-	-	-	0.00	7.75	3.34
11-Dec-21	2.12	8.00	3.87	-	-	-	0.00	8.00	4.35
12-Dec-21	2.30	4.49	3.17	-	-	-	0.00	5.57	2.54
13-Dec-21	1.95	10.00	3.81	-	-	-	0.00	8.00	3.96
14-Dec-21	2.04	8.10	3.86	-	-	-	0.00	8.00	3.84
15-Dec-21	1.91	20.00	5.15	-	-	-	0.00	7.72	3.71
16-Dec-21	1.75	8.02	3.80	-	-	-	0.00	6.63	2.87
17-Dec-21	1.50	10.00	3.55	-	-	-	0.00	8.00	2.54
18-Dec-21	1.70	4.90	2.99	-	-	-	0.00	6.00	2.40
19-Dec-21	1.00	3.62	2.53	-	-	-	0.00	6.01	1.88
20-Dec-21	0.95	8.00	3.68	-	-	-	0.00	8.00	2.73
21-Dec-21	2.03	12.54	4.35	-	-	-	0.00	8.00	3.75
22-Dec-21	2.19	8.55	4.51	-	-	-	0.00	8.00	3.68
23-Dec-21	2.00	16.00	4.78	-	-	-	0.00	7.71	3.68
24-Dec-21	2.01	9.00	4.45	-	-	-	0.00	7.50	3.42
25-Dec-21	2.03	7.50	4.01	-	-	-	0.00	8.00	3.95
26-Dec-21	1.55	4.99	3.18	-	-	-	0.00	8.00	3.88
27-Dec-21	1.00	4.83	3.23	-	-	-	0.00	7.45	3.03
28-Dec-21	1.00	4.50	3.18	-	-	-	0.00	6.78	3.00
29-Dec-21	1.00	5.00	2.83	-	-	-	0.00	8.00	2.49
30-Dec-21	1.00	4.47	2.89	-	-	-	0.00	7.10	2.50
31-Dec-21	1.00	5.00	3.65	-	-	-	0.00	8.00	3.57
	<b>0.95#</b>	<b>20.00#</b>	<b>3.77</b>	-	-	-	<b>0.00#</b>	<b>8.00#</b>	<b>3.35</b>

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.

# Maximum/Minimum in the month

**Table-27: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (REGIONAL ENTITY\*-WISE) (MUs),  
DECEMBER 2021**

Name of the Entity	Through Bilateral			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	649.25	92.26	-556.98	0.00	899.87	899.87	29.88	67.25	-37.38	305.51
HARYANA	198.51	238.95	40.44	5.40	509.78	504.38	55.10	44.80	10.29	555.11
RAJASTHAN	1.26	508.37	507.11	256.45	491.69	235.25	105.90	49.38	56.52	798.88
DELHI	372.50	96.46	-276.03	139.91	144.82	4.91	15.73	23.06	-7.33	-278.45
UTTAR PRADESH	345.06	72.97	-272.09	527.23	273.93	-253.30	58.92	102.77	-43.85	-569.24
UTTARAKHAND	15.40	371.36	355.96	0.17	97.19	97.02	30.56	12.00	18.56	471.54
H P	10.68	417.40	406.72	89.19	71.24	-17.94	27.07	10.95	16.13	404.91
J & K	65.09	0.00	-65.09	16.73	881.15	864.42	32.26	25.14	7.12	806.45
CHANDIGARH	0.00	0.00	0.00	0.00	0.22	0.22	3.33	15.24	-11.91	-11.69
MP	63.51	1227.10	1163.58	273.61	100.50	-173.11	55.14	78.00	-22.86	967.61
MAHARASHTRA	15.07	341.79	326.72	57.70	381.52	323.81	41.59	130.11	-88.53	562.01
GUJARAT	1.09	1241.35	1240.26	8.24	514.64	506.40	60.13	97.65	-37.51	1709.15
CHHATTISGARH	242.53	42.12	-200.42	398.08	2.12	-395.96	24.67	22.77	1.90	-594.47
GOA	0.00	39.64	39.64	32.98	7.26	-25.72	8.50	15.05	-6.55	7.37
DAMAN AND DIU	0.00	0.00	0.00	0.00	17.26	17.26	6.82	1.38	5.44	22.69
DADRA & NAGAR HAVI	0.00	0.00	0.00	0.20	81.60	81.40	7.90	2.70	5.20	86.60
ANDHRA P	4.29	13.92	9.63	27.89	930.35	902.46	36.94	34.68	2.26	914.35
KARNATAKA	350.80	27.51	-323.29	336.41	61.21	-275.20	34.44	61.29	-26.86	-625.35
KERALA	4.42	0.00	-4.42	150.73	22.33	-128.40	47.79	69.27	-21.49	-154.30
TAMIL NADU	0.00	24.00	24.00	6.41	539.84	533.43	17.92	27.86	-9.93	547.50
PONDICHERRY	0.00	0.00	0.00	0.00	0.00	0.00	54.12	51.60	2.52	2.52
TELANGANA	35.79	13.61	-22.18	105.88	493.39	387.51	1.73	1.86	-0.13	365.19
WEST BENGAL	118.65	217.06	98.41	1382.77	40.91	-1341.86	29.40	32.69	-3.28	-1246.74
ODISHA	96.49	533.04	436.54	170.86	245.77	74.91	35.33	37.08	-1.75	509.71
BIHAR	61.57	84.18	22.61	661.17	12.86	-648.31	31.83	32.24	-0.41	-626.11
JHARKHAND	0.00	190.61	190.61	9.25	3.38	-5.87	15.14	30.08	-14.93	169.81
SIKKIM	0.00	2.43	2.43	1.45	6.97	5.52	1.09	15.74	-14.64	-6.69
DVC	138.49	0.87	-137.62	21.58	0.12	-21.46	50.41	16.75	33.66	-125.42
ARUNACHAL P	0.35	5.70	5.35	8.43	0.23	-8.19	9.93	0.57	9.36	6.52
ASSAM	0.00	2.44	2.44	146.02	58.23	-87.78	9.96	8.51	1.45	-83.89
MANIPUR	2.77	9.36	6.59	6.25	9.52	3.27	3.23	1.87	1.36	11.22
MEGHALAYA	4.65	89.19	84.54	0.00	17.82	17.82	5.55	2.14	3.41	105.76
MIZORAM	0.00	0.00	0.00	0.31	0.00	-0.31	0.57	4.42	-3.86	-4.17
NAGALAND	0.00	11.16	11.16	1.44	0.35	-1.08	0.97	1.80	-0.83	9.25
TRIPURA	0.00	0.00	0.00	62.74	0.00	-62.74	0.91	12.67	-11.76	-74.50
NTPC STATIONS-NR	0.00	0.00	0.00	8.55	0.00	-8.55	93.53	46.62	46.91	38.36
NHPC STATIONS	0.00	0.00	0.00	0.30	0.00	-0.30	10.39	63.08	-52.69	-52.99
NFF	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.06	0.45	0.45
RAIL	0.00	0.00	0.00	0.00	1.33	1.33	4.53	3.14	1.39	2.72
NEP	0.00	5.88	5.88	0.00	0.00	0.00	1.45	0.47	0.98	6.85
NAPP	0.00	0.00	0.00	0.00	0.00	0.00	2.59	0.51	2.08	2.08
RAP B	0.00	0.00	0.00	0.00	0.00	0.00	1.06	1.71	-0.65	-0.65
NJPC	0.00	0.00	0.00	0.00	0.00	0.00	1.28	7.03	-5.75	-5.75
TEHRI	0.00	0.00	0.00	0.00	0.00	0.00	1.83	6.31	-4.48	-4.48
BBMB	0.00	0.00	0.00	0.00	0.00	0.00	4.40	14.00	-9.60	-9.60
RAP C	0.00	0.00	0.00	0.00	0.00	0.00	6.51	1.39	5.12	5.12
AD HYDRO	0.00	0.00	0.00	18.41	0.00	-18.41	0.53	0.53	-0.01	-18.42
IGSTPS	0.00	0.00	0.00	0.00	0.00	0.00	9.38	4.80	4.58	4.58
KOTESHWAR	0.00	0.00	0.00	0.00	0.00	0.00	0.94	3.13	-2.19	-2.19
KARCHAM WANGTOO	0.00	0.00	0.00	16.88	0.00	-16.88	2.53	4.01	-1.48	-18.35
LANCO BUDHIL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	0.0003	0.0003
RAMPUR HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.30	3.15	-2.85	-2.85
SORANG HEP	0.85	0.00	-0.85	3.40	0.00	-3.40	0.67	0.80	-0.12	-4.38
SAINJ HEP	0.00	0.00	0.00	10.50	0.00	-10.50	0.22	0.72	-0.50	-11.00

RENEW_SLR	0.00	0.00	0.00	0.00	0.00	0.00	0.64	0.54	0.11	0.11
AZURE_SLR	0.00	0.00	0.00	0.00	0.00	0.00	2.53	2.07	0.46	0.46
SB_SLR	0.00	0.00	0.00	0.00	0.00	0.00	2.07	2.56	-0.48	-0.48
ACME_SLR	0.00	0.00	0.00	0.00	0.00	0.00	2.39	3.35	-0.96	-0.96
AZURE34_SLR	6.20	0.00	-6.20	0.00	0.00	0.00	2.00	0.79	1.21	-5.00
TATA_SLR	28.70	0.00	-28.70	0.00	0.00	0.00	7.41	1.10	6.31	-22.39
RENEW_SLR_BKN	0.00	0.00	0.00	0.00	0.00	0.00	2.50	2.28	0.21	0.21
CLEAN_SLR	0.00	0.00	0.00	0.00	0.00	0.00	4.66	5.03	-0.37	-0.37
ARERJL_SLR	38.98	0.00	-38.98	0.00	0.00	0.00	6.32	0.98	5.34	-33.64
ASEJTL_SLR	8.97	0.00	-8.97	0.00	0.00	0.00	1.22	0.57	0.65	-8.32
SINGOLI BHATWARI HE	8.48	0.00	-8.48	4.67	0.00	-4.67	0.13	0.35	-0.22	-13.37
AZURE43_SLR	0.00	0.00	0.00	6.82	0.00	-6.82	6.79	4.53	2.26	-4.56
MRPL	0.00	0.00	0.00	0.00	0.00	0.00	3.13	3.23	-0.10	-0.10
SB6_POKARAN	0.00	0.00	0.00	0.00	0.00	0.00	6.54	1.99	4.56	4.56
EDEN_SLR	0.00	0.00	0.00	0.00	0.00	0.00	2.60	3.33	-0.74	-0.74
SBSR_SLR	0.00	0.00	0.00	0.00	0.00	0.00	1.07	1.48	-0.41	-0.41
RENEWSW_SLR	0.00	0.00	0.00	1.83	0.00	-1.83	2.79	2.66	0.13	-1.71
ADANIHB_SLR	43.89	0.00	-43.89	1.01	0.00	-1.01	7.91	10.59	-2.68	-47.58
RENEWJH_SLR	39.45	0.00	-39.45	7.74	0.00	-7.74	4.38	2.17	2.22	-44.97
ADANIHB_WIND	7.29	0.00	-7.29	0.00	0.00	0.00	0.00	0.00	0.00	-7.29
ADANI_SLR 4	14.53	0.00	-14.53	0.00	0.00	0.00	0.00	0.00	0.00	-14.53
AHEJOL_S_FTG2	15.88	0.00	-15.88	0.00	0.00	0.00	0.00	0.00	0.00	-15.88
AHEJ2L_SOLAR	19.93	0.00	-19.93	0.00	0.00	0.00	0.00	0.00	0.00	-19.93
AHEJ2L_WIND	2.33	0.00	-2.33	0.00	0.00	0.00	0.00	0.00	0.00	-2.33
AHEJ3L_SOLAR	22.79	0.00	-22.79	0.60	0.00	-0.60	4.22	1.76	2.46	-20.93
AHEJ3L_WIND	1.59	0.00	-1.59	0.00	0.00	0.00	0.00	0.00	0.00	-1.59
AHEJ4L_WIND	5.75	0.00	-5.75	0.00	0.00	0.00	0.00	0.00	0.00	-5.75
AHEJ4L_SOLAR	10.11	0.00	-10.11	0.00	0.00	0.00	0.00	0.00	0.000	-10.107
RENEWSW	0.00	0.00	0.00	0.00	0.00	0.00	2.27	3.79	-1.52	-1.52
AZURE41_SLR	0.00	0.00	0.00	0.00	0.00	0.00	1.96	1.24	0.71	0.71
AYANA_RP1	13.33	0.00	-13.33	0.05	0.00	-0.05	3.60	0.92	2.68	-10.70
AVAADASN_SLR	2.26	0.00	-2.26	0.00	0.00	0.00	2.71	1.10	1.61	-0.65
RENEWURJA_SLR	27.93	0.00	-27.93	0.00	0.00	0.00	5.86	0.77	5.09	-22.83
AVADARJHN_SLR	0.00	0.00	0.00	0.00	0.00	0.00	0.64	0.38	0.26	0.26
NCR ALLAHABAD	0.00	37.20	37.20	0.00	0.00	0.00	0.00	0.00	0.00	37.20
NTPC STATIONS-WR	0.00	0.00	0.00	21.69	0.26	-21.43	150.30	121.78	28.52	7.09
BHADRAVATHI HVDC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	-0.12	-0.12
VINDHYACHAL HVDC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	-0.27	-0.27
JINDAL POWER	64.52	0.00	-64.52	204.15	0.38	-203.78	2.21	4.94	-2.72	-271.03
LANKO_AMK	5.95	0.00	-5.95	0.00	0.00	0.00	1.04	4.37	-3.33	-9.28
NSPCL	0.00	0.00	0.00	0.00	0.00	0.00	6.82	2.66	4.16	4.16
ACBIL	0.58	0.00	-0.58	69.96	0.00	-69.96	1.95	5.44	-3.50	-74.04
BALCO	11.46	0.00	-11.46	2.22	0.00	-2.22	8.59	3.06	5.53	-8.16
RGPPL	0.00	0.00	0.00	7.46	0.00	-7.46	3.94	1.92	2.02	-5.44
CGPL	0.00	0.00	0.00	0.00	0.00	0.00	16.54	1.95	14.58	14.58
DCPP	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.01	0.06	0.06
EMCO	0.00	0.00	0.00	4.09	0.00	-4.09	3.24	1.75	1.48	-2.61
KSK MAHANADI	0.00	0.00	0.00	3.14	0.00	-3.14	1.23	1.92	-0.69	-3.83
ESSAR POWER	51.62	0.00	-51.62	224.45	0.00	-224.45	2.94	2.03	0.91	-275.16
JINDAL STAGE-II	93.04	0.00	-93.04	244.07	0.13	-243.94	5.03	6.37	-1.35	-338.33
DB POWER	421.52	0.00	-421.52	26.92	0.00	-26.92	3.53	2.71	0.82	-447.62
DHARIWAL POWER	0.00	0.00	0.00	0.48	0.00	-0.48	0.80	1.16	-0.36	-0.85
JAYPEE NIGRIE	231.52	0.00	-231.52	97.31	0.00	-97.31	0.56	5.83	-5.27	-334.10
DGEN MEGA POWER	0.00	0.00	0.00	0.00	0.00	0.00	1.09	0.00	1.09	1.09
MB POWER	84.91	0.00	-84.91	160.55	0.00	-160.55	5.75	5.92	-0.17	-245.63
MARUTI COAL	0.00	0.00	0.00	26.87	0.25	-26.62	0.00	0.00	0.00	-26.62
JHABUA POWER_MP	6.09	0.00	-6.09	28.12	0.00	-28.12	6.08	4.09	1.99	-32.21
SASAN UMPP	0.00	0.00	0.00	15.30	0.00	-15.30	1.81	47.87	-46.06	-61.36
TRN ENERGY	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.00	0.55	0.55
RKM POWER	232.63	0.00	-232.63	115.30	0.00	-115.30	6.87	10.64	-3.77	-351.70
SKS POWER	106.04	0.00	-106.04	0.00	0.00	0.00	0.72	1.35	-0.63	-106.68
BARC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.67	-3.67	-3.67
KAPP 3&4	0.00	0.00	0.00	0.00	0.00	0.00	8.10	0.00	8.10	8.10



HVDC CHAMPA	0.00	0.00	0.00	0.00	0.00	0.00	0.77	0.00	0.77	0.77
MAHINDRA_RUMS	0.00	0.00	0.00	0.00	0.00	0.00	2.71	2.25	0.46	0.46
ARINSUM_RUMS	0.00	0.00	0.00	0.00	0.00	0.00	3.28	1.89	1.38	1.38
OSTRO	0.00	0.00	0.00	0.85	0.00	-0.85	6.03	10.21	-4.18	-5.03
ACME_RUMS	0.00	0.00	0.00	0.00	0.00	0.00	2.96	2.26	0.70	0.70
RENEW_BHACHAU	0.00	0.00	0.00	0.00	0.00	0.00	7.06	8.99	-1.93	-1.93
GIWEL_BHUJ	0.00	0.00	0.00	0.00	0.00	0.00	10.09	19.49	-9.39	-9.39
INOX_BHUJ	0.00	0.00	0.00	0.00	0.00	0.00	4.76	6.85	-2.09	-2.09
AGEMPL BHUJ	0.00	0.00	0.00	0.00	0.00	0.00	13.17	17.23	-4.06	-4.06
REGL	360.39	0.00	-360.39	20.25	0.00	-20.25	0.00	0.00	0.00	-380.64
RPREL	441.88	0.00	-441.88	49.57	0.00	-49.57	10.58	3.33	7.25	-484.19
AMPS Hazira	0.00	159.51	159.51	0.00	103.83	103.83	22.58	23.33	-0.75	262.60
HVDC RAIGARH	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.01	0.30	0.30
RGPPL_Others	0.00	0.00	0.00	0.17	0.00	-0.17	0.00	0.00	0.00	-0.17
ALFANAR_BHUJ	0.00	0.00	0.00	0.00	0.00	0.00	4.63	12.23	-7.60	-7.60
RENEW_BHUJ	0.00	0.00	0.00	0.00	0.00	0.00	6.56	9.99	-3.43	-3.43
ADANI_WIND	7.77	0.00	-7.77	1.06	0.00	-1.06	0.00	0.00	0.00	-8.82
CONTINNUM PT	1.47	0.00	-1.47	0.64	0.00	-0.64	0.00	0.00	0.00	-2.11
TPREL_RADHANESDA	0.00	0.00	0.00	0.00	0.00	0.00	1.29	0.93	0.36	0.36
ESPL_RADHANESDA	0.00	0.00	0.00	0.00	0.00	0.00	2.36	1.36	1.00	1.00
GIPCL_RADHANESDA	0.00	0.00	0.00	0.00	0.00	0.00	1.95	0.74	1.21	1.21
NTPC STATIONS-SR	0.00	0.00	0.00	137.12	0.00	-137.12	6.51	47.42	-40.90	-178.02
LANKO KONDAPALLI	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.45	0.45
SIMHAPURI	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.39	0.39
MEENAKSHI	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.61	0.61
COASTGEN	0.00	0.00	0.00	0.00	0.00	0.00	4.67	0.68	3.98	3.98
THERMAL POWERTECH	0.00	0.00	0.00	0.00	0.00	0.00	17.81	1.95	15.86	15.86
IL&FS	0.00	0.00	0.00	0.00	0.00	0.00	7.22	0.07	7.15	7.15
NLC	0.00	0.00	0.00	114.58	0.00	-114.58	33.96	29.72	4.24	-110.34
SEMBCORP	111.15	0.00	-111.15	95.95	0.00	-95.95	14.79	1.83	12.96	-194.14
NETCL VALLUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.43	-7.43	-7.43
NTPL	0.00	0.00	0.00	0.00	0.44	0.44	0.00	7.43	-7.43	-6.99
AHSP_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	1.09	0.96	0.13	0.13
AKSP_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	1.15	0.75	0.40	0.40
ABSP_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	1.15	0.92	0.23	0.23
AZURE_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.87	-0.26	-0.26
TATA_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	1.41	1.58	-0.16	-0.16
FRV_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.76	-0.04	-0.04
NTPC_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	4.12	3.72	0.40	0.40
GIWEL_TCN	0.00	0.00	0.00	0.00	0.00	0.00	9.09	5.81	3.28	3.28
MYTRAH_TCN	0.00	0.00	0.00	0.00	0.00	0.00	10.34	2.15	8.19	8.19
FRV_NPK	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.91	-0.21	-0.21
ORANGE_TCN	0.00	0.00	0.00	0.00	0.00	0.00	8.39	3.18	5.20	5.20
BETAM_TCN	0.00	0.00	0.00	0.00	0.00	0.00	4.69	6.86	-2.17	-2.17
SBG_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	3.05	2.01	1.04	1.04
SBG_NPK	0.00	0.00	0.00	0.00	0.00	0.00	4.48	2.04	2.45	2.45
FORTUM1_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	1.57	1.16	0.41	0.41
PARAM_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.82	0.45	0.37	0.37
YARROW_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.25	-0.06	-0.06
TATA_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	1.31	1.43	-0.12	-0.12
RENEW_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.15	0.03	0.03
AKS_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.19	0.01	0.01
ARS_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.17	0.01	0.01
AVAADA1_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	1.08	0.66	0.42	0.42
ADY1_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.34	-0.24	-0.24
ADY2_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.36	-0.26	-0.26
ADY13_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.29	-0.10	-0.10
ADY3_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.28	-0.11	-0.11
ADY6_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.30	-0.14	-0.14
ADY10_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.28	-0.13	-0.13
AZURE_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.52	-0.25	-0.25
FORTUM2_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.58	1.06	-0.48	-0.48
AVAADA2_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.49	0.06	0.06

KREDL_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.04	0.55	0.55
AYANA_NPKUNTA	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.84	-0.13	-0.13
SPRNG_NPKUNTA	0.00	0.00	0.00	0.00	0.00	0.00	0.94	1.14	-0.20	-0.20
SPRING_PUGALUR	0.00	0.00	0.00	0.00	0.00	0.00	1.11	1.43	-0.33	-0.33
OSTRO Hiriyur	0.00	0.00	0.00	0.00	0.00	0.00	1.18	1.02	0.16	0.16
NTPC STATIONS-ER	0.00	0.00	0.00	11.94	0.00	-11.94	68.48	45.11	23.36	11.42
MAITHON POWER LTD	0.00	0.00	0.00	0.00	0.00	0.00	3.74	7.42	-3.69	-3.69
NPGC	0.00	0.00	0.00	5.05	0.00	-5.05	3.25	9.52	-6.28	-11.33
ADHUNIK POWER LTD	146.27	0.00	-146.27	34.24	0.00	-34.24	3.23	1.60	1.64	-178.87
CHUZACHEN HEP	0.00	0.00	0.00	2.06	0.00	-2.06	0.28	0.57	-0.30	-2.35
RANGIT HEP	0.00	0.00	0.00	0.00	0.00	0.00	1.02	1.70	-0.68	-0.68
GMR KAMALANGA	24.75	0.00	-24.75	17.40	0.00	-17.40	2.47	4.59	-2.12	-44.28
JITPL	451.06	0.00	-451.06	74.81	0.00	-74.81	4.72	3.96	0.76	-525.11
TEESTA HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.02	2.88	-2.86	-2.86
DAGACHU	28.68	0.00	-28.68	0.00	0.00	0.00	2.96	0.02	2.95	-25.73
JORETHANG	6.37	0.00	-6.37	15.37	0.00	-15.37	3.17	0.23	2.94	-18.80
NEPAL(NVVN)	0.00	0.00	0.00	5.83	69.03	63.20	4.73	9.96	-5.23	57.97
BANGLADESH	0.00	0.00	0.00	0.00	0.00	0.00	3.72	2.33	1.39	1.39
HVDC PUS	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.04	0.16	0.16
TEESTA STG3	27.29	0.00	-27.29	154.82	0.00	-154.82	4.24	1.15	3.09	-179.03
DIKCHU HEP	4.35	0.00	-4.35	5.78	0.00	-5.78	0.91	0.48	0.43	-9.70
HVDC ALPD	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.09	0.02	0.02
TASHIDENG HEP	6.09	0.00	-6.09	17.53	0.00	-17.53	2.77	0.44	2.32	-21.30
BRBCL,NABINAGAR	0.00	0.00	0.00	0.00	0.00	0.00	4.85	7.57	-2.72	-2.72
MTPS II	0.00	0.00	0.00	2.59	0.00	-2.59	1.70	3.36	-1.66	-4.25
TALA HEP	0.00	0.00	0.00	0.00	0.00	0.00	106.53	0.00	106.53	106.53
CHUKHA HEP	0.00	0.00	0.00	0.00	0.00	0.00	1.03	71.86	-70.83	-70.83
KURICHU HEP	0.00	0.00	0.00	0.00	0.00	0.00	41.52	0.00	41.52	41.52
MANGDECHU HEP	0.00	0.00	0.00	0.00	0.00	0.00	6.07	6.08	-0.02	-0.02
RONGNICHU HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.77	-0.37	-0.37
NTPC STATIONS-NER	0.00	0.00	0.00	20.53	0.00	-20.53	7.66	2.47	5.19	-15.34
NEEPCO STATIONS	34.89	0.00	-34.89	53.87	0.00	-53.87	2.34	10.15	-7.81	-96.57
RANGANADI HEP	0.00	0.00	0.00	0.00	0.00	0.00	1.65	0.73	0.92	0.92
DOYANG HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.37	-0.15	-0.15
ONGC PALATANA	37.20	0.00	-37.20	13.37	0.00	-13.37	0.35	1.15	-0.80	-51.37
LOKTAK	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.80	-0.65	-0.65
PARE HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.39	-0.25	-0.25

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

<b>Table-28: VOLUME AND PRICE OF RENEWABLE ENERGY CERTIFICATES (RECs) TRANSACTED THROUGH POWER EXCHANGES, DECEMBER 2021</b>					
<b>Sr. No.</b>	<b>Details of REC Transactions</b>	<b>IEX</b>		<b>PXIL</b>	
		<b>Solar</b>	<b>Non-Solar</b>	<b>Solar</b>	<b>Non-Solar</b>
A	Volume of Buy Bid	843375	1129701	148943	587224
B	Volume of Sell Bid	689889	1960186	162075	936601
C	Ratio of Buy Bid to Sell Bid Volume	1.22	0.58	0.92	0.63
D	Market Clearing Volume (MWh)	254980	1129701	78907	587224
E	Weighted average Market Clearing Price (₹/MWh)	2211	1000	2100	1000

*Source: IEX and PXIL*

*Note 1: 1 REC = 1 MWh*