

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

November 2022



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



# Contents

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

<b>S.No.</b>	<b>List of Tables</b>	<b>Page No.</b>
Table-1	Volume of Short-term Transactions of Electricity in India	9
Table-2	Percentage Share of Electricity Transacted by Trading Licensees	11
Table-3	Price of Electricity Transacted through Traders	12
Table-4	Price of Electricity Transacted through Traders (Time-wise)	12
Table-5	Price of Electricity Transacted in Day Ahead Market through Power Exchanges	12
Table-6	Price of Electricity Transacted in Green Day Ahead Market through Power Exchanges	12
Table-7	Price of Electricity Transacted in Real Time Market through Power Exchanges	12
Table-8	Volume and Price of Electricity in Term Ahead Market of IEX	13
Table-9	Volume and Price of Electricity in Term Ahead Market of PXIL	13
Table-10	Volume and Price of Electricity in Term Ahead Market of HPX	13
Table-11	Volume and Price of Electricity in Green Term Ahead Market of IEX	13
Table-12	Volume and Price of Electricity in Green Term Ahead Market of PXIL	13
Table-13	Price of Electricity Transacted through DSM	13
Table-14	Volume of Electricity Sold through Bilateral	15
Table-15	Volume of Electricity Purchased through Bilateral	17
Table-16	Volume of Electricity Sold in Day Ahead Market through Power Exchanges	18
Table-17	Volume of Electricity Purchased in Day Ahead Market through Power Exchanges	20
Table-18	Volume of Electricity Sold in Green Day Ahead Market through Power Exchanges	21
Table-19	Volume of Electricity Purchased in Green Day Ahead Market through Power Exchanges	22
Table-20	Volume of Electricity Sold in Real Time Market through Power Exchanges	23
Table-21	Volume of Electricity Purchased in Real Time Market through Power Exchanges	25
Table-22	Volume of Electricity Under drawal through DSM	26
Table-23	Volume of Electricity Over drawal through DSM	30
Table-24	Total Volume of Net Short-term Transactions of Electricity (Regional Entity-wise)	34
Table-25	Details of Congestion in Power Exchanges	38
Table-26	Volume of Short-term Transactions of Electricity in India (Day-wise)	39
Table-27(a)	Price of Day Ahead Transactions of Electricity (Day-Wise)	40
Table-27(b)	Price of Green Day Ahead Transactions of Electricity (Day-Wise)	41
Table-27(c)	Price of Real Time Transactions and DSM (Day-Wise)	42
Table-28	Volume of Short-term Transactions of Electricity (Regional Entity-wise)	43
Table-29	Volume and Price of Renewable Energy Certificates (RECs) Transacted through Power Exchanges	47
Table-30	Volume and Price of Cross Border Trade through Day Ahead Market at IEX	47

<b>S. No.</b>	<b>List of Figures</b>	<b>Page No.</b>
Figure-1	Volume of various kinds of Electricity Transactions in Total Electricity Generation	9
Figure-2	Volume of Short-term Transactions of Electricity	9
Figure-3	Volume transacted in different markets segments on Power Exchanges	10
Figure-4	Volume of Short-term Transactions of Electricity (Day-wise)	10
Figure-5	Percentage Share of Electricity Transacted by Trading Licensees	11
Figure-6	Weighted Average Price of Short-term Transactions Electricity	14
Figure-7	Weighted Average Price of Short-term Transactions Electricity (Day-wise)	14

## 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_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
CLEANSR_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_BHUI	Green infra wind energy Limited, Bhuj
GIWEL_TCN	Green Infra Wind Energy Limited,Tuticorin
GMR CHHATTISGARH	GMR Chhattisgarh Energy Limited
GMR KAMALANGA	GMR Kamalanga Energy Ltd.
G-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_BHUI	INOX Wind Limited, Bhuj, Gujarat
J&K	Jammu & Kashmir
JAYPEE NIGRIE	Jaypee Nigrie Super Thermal Power Project
JHABUA POWER MP	Jhabua Thermal Power Project
JINDAL POWER	Jindal Power Limited
JINDAL STAGE-II	Jindal Power Ltd Stage II
JITPL	Jindal India Thermal Power Ltd.
JORETHANG	Jorethang Loop Hydroelectric Power Project
KAPP 3&4	Kakrapar Atomic Power Station Unit 3 & 4
KARCHAM WANGTOO	Karcham Wangtoo H.E. Project
KORBA WEST POWER	Korba West Power Company Limited
KOTESHWAR	Koteshwar Hydro Power project
KREDL_PVGD	Karnataka Renewable Energy Development Ltd,Pavagada
KSK MAHANADI	KSK Mahanadi Power Ltd

KSMPL_SLR	Kilaj Solar (Maharashtra) Private Limited
KURICHU HEP	Kurichhu Hydro-electric Power Station, Bhutan
LANKO_AMK	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 **November 2022** is presented in the following sections.

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

2.1. During November 2022, total electricity generation, excluding generation from renewable and captive power plants in India was 108506.84 MU (Table-1). Of the total electricity generation, 12.68% was transacted through short-term, comprising of 6.25% through power exchanges {Day Ahead Market (DAM) (including G-DAM) and Real Time Market (RTM)}, followed by 4.64% through bilateral (through traders and term-ahead contracts on power exchanges, and directly between distribution companies) and 1.79% through DSM (Table-1 & Figure-1).

2.2. Of the total short-term transactions (13761.47 MU), 49.26% was transacted through power exchanges {DAM (including G-DAM) and RTM}, followed by 36.61% through bilateral (21.11% through traders and term-ahead contracts on power exchanges, and 15.50% directly between distribution companies) and 14.13% 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, 66.02% of the volume was transacted in DAM (including G-DAM), followed by 17.29% in RTM and 16.69% 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 47 trading licensees as of November 2022. Of which, 25 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 84.67% 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 0.2559 for the month of November 2022, which indicates high concentration of market power (Table-2).

2.6. The volume of electricity transacted in the DAM of IEX was 5083.85 MU. No electricity was transacted through DAM of PXIL and HPX. The volume of total buy bids and sell bids was 8095.77 MU and 8914.64 MU respectively in IEX, while the same was 84.05 MU and 50.89 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 176.39 MU, while no volume purchased, under the Cross Border Trade of electricity through power exchange (Table-30). 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 288.32 MU, while no electricity was transacted in the G-DAM of PXIL and HPX. The volume of total buy bids and

sell bids was 1310.51 MU and 407.70 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 1406.84 MU, while no electricity was transacted in the RTM of PXIL and HPX. The volume of total buy bids and sell bids was 2551.25 MU and 3332.31 MU respectively in IEX. The volume of total sell bids was 4.32 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 547.33 MU, 492.13 MU and 155.43 MU respectively (Table-8, Table-9 & Table-10). The volume of electricity transacted in the Green Term Ahead Market (G-TAM) of IEX and PXIL was 75.79 MU and 87.02 MU respectively (Table-11 & Table-12). No electricity was transacted in G-TAM of HPX.

### **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 ₹5.48/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 ₹5.70/kWh and ₹4.08/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 ₹2.71/kWh, ₹12.00/kWh and ₹4.80/kWh respectively (Table-5). The minimum, maximum and weighted average prices for the electricity transacted in the G-DAM of IEX were ₹2.71/kWh, ₹12.00/kWh and ₹4.91/kWh respectively (Table-6). The minimum, maximum and weighted average prices for the electricity transacted in the RTM of IEX were ₹2.00/kWh, ₹12.00/kWh and ₹4.99/kWh respectively (Table-7). The weighted average price of electricity transacted in the TAM of IEX, PXIL and HPX was ₹4.82/kWh, ₹4.59/kWh and ₹5.22/kWh respectively (Table-8, Table-9 and Table-10). The weighted average price of electricity transacted in the G-

TAM of IEX and PXIL was ₹4.95/kWh and ₹4.78/kWh respectively (Table-11 and Table-12). No electricity was transacted in DAM, G-DAM & RTM of PXIL and in DAM, G-DAM, RTM & G-TAM of HPX.

3.3. **Price of electricity transacted through DSM:** The minimum, maximum and average price of DSM was ₹0.00/kWh, ₹8.00/kWh and ₹4.25/kWh respectively (Table-13).

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-27(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 ₹0.035/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 36.59% of the volume. These were Punjab, Raipur Energen Limited, Uttar Pradesh, Delhi and Telangana (Table-14). Top 5 regional entities/states purchased 61.45% of the volume, and these were Madhya Pradesh, Maharashtra, Rajasthan, Gujarat and Himachal Pradesh (Table-15).

5.2. Of the total DAM transactions at power exchanges, top 5 regional entities/states sold 64.88% of the volume, and these were Uttar Pradesh, West Bengal, Chhattisgarh, Bihar and Sembcorp Gayatri Power Ltd. (Table-16). Top 5 regional entities/states purchased 68.30% of the volume, and these were Gujarat, Rajasthan, Andhra Pradesh, Jammu & Kashmir and Uttarakhand (Table-17).

---

<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.

5.3. Of the total G-DAM transactions at power exchanges, top 5 regional entities/states sold 87.13% of the volume, and these were Karnataka, Adani Solar Energy, Telangana, Andhra Pradesh and Jammu & Kashmir (Table-18). Top 5 regional entities/states purchased 64.01% of the volume, and these were Maharashtra, Uttar Pradesh, Madhya Pradesh, Delhi and Gujarat (Table-19).

5.4. Of the total RTM transactions at power exchanges, top 5 regional entities/states sold 52.91% of the volume, and these were Bihar, West Bengal, Uttar Pradesh, Odisha and Madhya Pradesh (Table-20). Top 5 regional entities/states purchased 63.15% of the volume, and these were Rajasthan, Jammu & Kashmir, Gujarat, Maharashtra and Telangana (Table-21).

5.5. Of the total under drawal in November 2022, top 5 regional entities/states under drew 29.65% of the volume, and these were Kakrapar Atomic Power Station Unit 3 & 4, Madhya Pradesh, NHPC Stations, NTPC Stations (Western Region) and Uttar Pradesh (Table-22). Top 5 regional entities/states overdrew 27.74% of the total over drawal volume, and these were NTPC Stations (Western Region), NTPC Stations (Eastern Region), NTPC Stations (Northern Region), Rajasthan and Maharashtra (Table-23).

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-24 & 28. Top 5 electricity selling regional entities/states were Uttar Pradesh, West Bengal, Bihar, Chhattisgarh and Sembcorp Gayatri Power Ltd. Top 5 electricity purchasing regional entities/states were Gujarat, Rajasthan, Maharashtra, Andhra Pradesh and Madhya Pradesh.

## **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

---

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

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 cleared volume and actual cleared volume. During the month of November 2022, congestion was experienced in RTM of IEX only (Table-25).

6.3. The volume of electricity that could not be cleared due to congestion in DAM of PXIL was 0.005% of the unconstrained cleared volume. In terms of time, congestion occurred was 0.07% during the month (Table-25).

## **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 November 2022 are shown in Table-29. The market clearing volume of solar RECs transacted on IEX, PXIL and HPX were 303704,

---

<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.

129037 and 1036 respectively, and the weighted average market clearing price of these RECs was ₹1000/MWh in IEX, ₹1000/MWh in PXIL and ₹1000/MWh in HPX. Market clearing volume of non-solar RECs transacted on IEX, PXIL and HPX were 67835, 14144 and 1093 respectively, and the weighted average market clearing price of these RECs was ₹1000/MWh in IEX, ₹1000/MWh in PXIL and ₹1000/MWh in HPX.

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 0.07, 0.06 and 0.14 in IEX, PXIL and HPX respectively. For non-solar RECs, the ratio of buy bids to sell bids 0.01, 0.01 and 0.14 in IEX, PXIL and HPX respectively.

## **8. Inferences:**

- a) The percentage of short-term transactions of electricity to total electricity generation was 12.68%.
- b) Of the total short-term transactions (13761.47 MU), 49.26% was transacted through power exchanges {DAM (including G-DAM) and RTM}, followed by 36.61% through bilateral (21.11% through traders and term-ahead contracts on power exchanges, and 15.50% directly between distribution companies) and 14.13% through DSM.
- c) Of the total volume of electricity transacted through power exchanges, 66.02% of the volume was transacted in DAM (including G-DAM), followed by 17.29% in RTM and 16.69% in Term Ahead Market (TAM) (including G-TAM).
- d) Top 5 trading licensees had a share of 84.67% 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 0.2559, indicating high concentration of market power.
- f) The weighted average sale price of electricity transacted through trading licensees was ₹5.48/kWh.
- g) The weighted average price of electricity transacted in DAM of IEX was ₹4.80/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 ₹4.91/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 ₹4.99/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 ₹4.82/kWh, ₹4.59/kWh and ₹5.22/kWh respectively. The weighted average price of electricity transacted in the G-TAM of IEX and PXIL was ₹4.95/kWh and ₹4.78/kWh respectively. No electricity was transacted in G-TAM of HPX.
- i) The average price of electricity transacted through DSM was ₹4.25/kWh.
- j) The weighted average trading margin charged by the trading licensees for bilateral transactions was ₹0.035/kWh, which was in line with the Trading Licence Regulations 2020.
- k) Top 5 electricity selling regional entities/states were Uttar Pradesh, West Bengal, Bihar, Chhattisgarh and Sembcorp Gayatri Power Ltd. Top 5 electricity purchasing regional entities/states were Gujarat, Rajasthan, Maharashtra, Andhra Pradesh and Madhya Pradesh.
- l) During the month of November 2022, congestion was experienced in RTM of IEX. The volume of electricity that could not be cleared due to congestion in RTM of IEX was 0.005% of the unconstrained cleared volume. In terms of time, congestion occurred was 0.07% during the month.
- m) The market clearing volume of solar RECs transacted on IEX, PXIL and HPX were 303704, 129037 and 1036 respectively, and the weighted average market clearing price of these RECs was ₹1000/MWh in IEX, ₹1000/MWh in PXIL and ₹1000/MWh in HPX. Market clearing volume of non-solar RECs transacted on IEX, PXIL and HPX were 67835, 14144 and 1093 respectively, and the weighted average market clearing price of these RECs was ₹1000/MWh in IEX, ₹1000/MWh in PXIL and ₹1000/MWh in HPX.

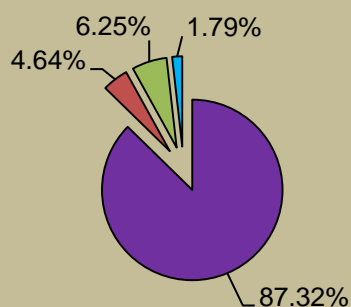
\*\*\*



<b>Table-1: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (ALL INDIA), NOVEMBER 2022</b>				
<b>Sr. No</b>	<b>Short-term transactions</b>	<b>Volume (MU)</b>	<b>% to Volume of short-term transactions</b>	<b>% to Total Generation</b>
1	Bilateral	<b>5038.08</b>	<b>36.61</b>	<b>4.64</b>
	(i) Through Traders and PXs	2904.68	21.11	2.68
	(ii) Direct	2133.41	15.50	1.97
2	Through Power Exchanges	<b>6779.01</b>	<b>49.26</b>	<b>6.25</b>
	(i) IEX			
	(a) DAM	5083.85	36.94	4.69
	(b) RTM	1406.84	10.22	1.30
	(c) GDAM	288.32	2.10	0.27
	(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	0.000
	(b) RTM	0.00	0.00	0.00
	(c) GDAM	0.00	0.00	0.00
3	Through DSM	<b>1944.38</b>	<b>14.13</b>	<b>1.79</b>
	<b>Total Short-term transactions</b>	<b>13761.47</b>	<b>-</b>	<b>12.68</b>
	<b>Total Generation</b>	<b>108506.84</b>	<b>-</b>	<b>-</b>

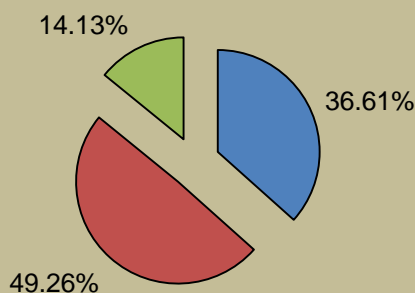
Source: NLDC

**Figure-1: Volume of Various Kinds of Electricity Transactions in Total Electricity Generation, November 2022**



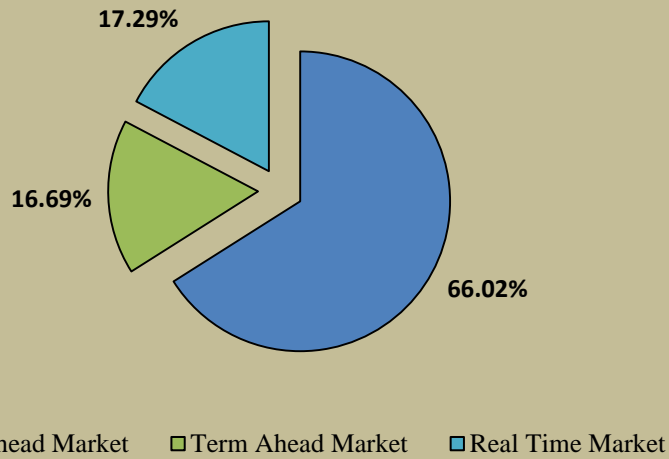
■ Long-term   
 ■ Bilateral   
 ■ Through Power Exchanges   
 ■ Through DSM

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

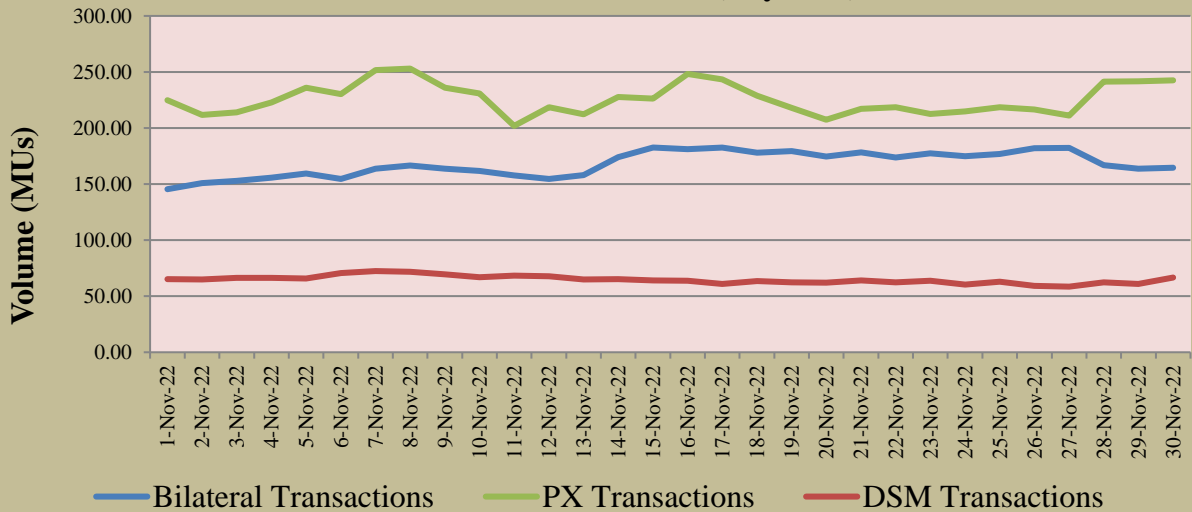


■ Bilateral   
 ■ Power Exchanges   
 ■ DSM

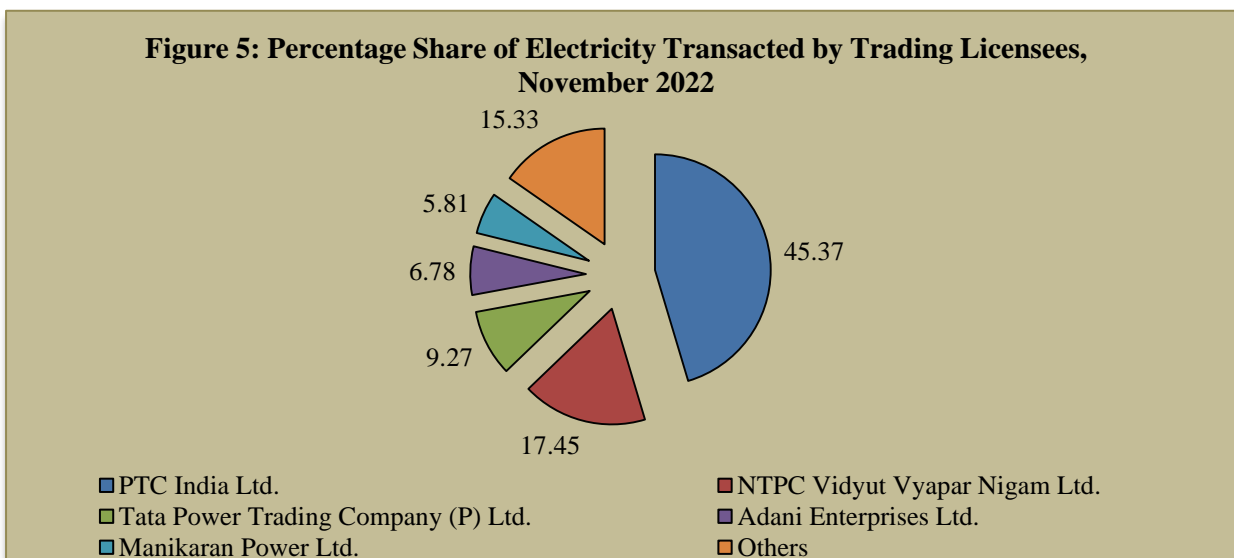
**Figure-3: Volume transacted in different markets segments on Power Exchanges, November 2022**



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



<b>Table-2: PERCENTAGE SHARE OF ELECTRICITY TRANSACTED BY TRADING LICENSEES, NOVEMBER 2022</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.	45.37	0.2058
2	NTPC Vidyut Vyapar Nigam Ltd.	17.45	0.0304
3	Tata Power Trading Company (P) Ltd.	9.27	0.0086
4	Adani Enterprises Ltd.	6.78	0.0046
5	Manikaran Power Ltd.	5.81	0.0034
6	Arunachal Pradesh Power Corporation (P) ltd	3.45	0.0012
7	GMR Energy Trading Ltd.	3.29	0.0011
8	Kreate Energy (I) Pvt. Ltd.	1.53	0.0002
9	Knowledge Infrastructure Systems (P) Ltd	1.26	0.0002
10	Instinct Infra & Power Ltd.	1.16	0.0001
11	NTPC Ltd.	0.84	0.0001
12	Abja Power Private Limited	0.80	0.0001
13	RPG Power Trading Company Ltd.	0.64	0.0000
14	Greenko Energies Pvt Ltd	0.54	0.0000
15	JSW Power Trading Company Ltd	0.50	0.0000
16	Statkraft Markets Pvt. Ltd.	0.42	0.0000
17	NLC India Ltd.	0.23	0.0000
18	Kundan International Pvt. Ltd.	0.19	0.0000
19	Saranyu Power Trading Private Limited	0.16	0.0000
20	Shree Cement Ltd.	0.14	0.0000
21	Instant Venture Pvt. Ltd.	0.10	0.0000
22	Altilium Energie Private Limited	0.05	0.0000
23	Phillip Commodities India (P) Ltd.	0.01	0.0000
24	Shubheksha Advisors Pvt. Ltd.	0.01	0.0000
25	Gita Power & Infrastructure Private Limited	0.003	0.0000
<b>TOTAL</b>		<b>100.00%</b>	<b>0.2559</b>
<b>Top 5 trading licensees</b>		<b>84.67%</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, NOVEMBER 2022</b>		
<b>Sr.No</b>	<b>Item</b>	<b>Sale Price of Traders (₹/kWh)</b>
1	Minimum	2.70
2	Maximum	7.95
3	Weighted Average	5.48

*Source: Information submitted by trading licensees*

<b>Table-4: PRICE OF ELECTRICITY TRANSACTED THROUGH TRADERS (TIME-WISE), NOVEMBER 2022</b>		
<b>Sr.No</b>	<b>Period of Trade</b>	<b>Sale Price of Traders (₹/kWh)</b>
1	RTC	5.70
2	PEAK	-
3	OFF PEAK	4.08

*Source: Information submitted by trading licensees*

<b>Table-5: PRICE OF ELECTRICITY TRANSACTED IN DAY AHEAD MARKET THROUGH POWER EXCHANGES, NOVEMBER 2022</b>				
<b>Sr.No</b>	<b>ACP</b>	<b>Price in IEX (₹/kWh)</b>	<b>Price in PXIL (₹/kWh)</b>	<b>Price in HPX (₹/kWh)</b>
1	Minimum	2.71	-	-
2	Maximum	12.00	-	-
3	Weighted Average	4.80	-	-

*Source: IEX, PXIL and HPX*

<b>Table-6: PRICE OF ELECTRICITY TRANSACTED IN GREEN DAY AHEAD MARKET THROUGH POWER EXCHANGES, NOVEMBER 2022</b>				
<b>Sr.No</b>	<b>ACP</b>	<b>Price in IEX (₹/kWh)</b>	<b>Price in PXIL (₹/kWh)</b>	<b>Price in HPX (₹/kWh)</b>
1	Minimum	2.71	-	-
2	Maximum	12.00	-	-
3	Weighted Average	4.91	-	-

*Source: IEX, PXIL and HPX*

<b>Table-7: PRICE OF ELECTRICITY TRANSACTED IN REAL TIME MARKET THROUGH POWER EXCHANGES, NOVEMBER 2022</b>				
<b>Sr.No</b>	<b>ACP</b>	<b>Price in IEX (₹/kWh)</b>	<b>Price in PXIL (₹/kWh)</b>	<b>Price in HPX (₹/kWh)</b>
1	Minimum	2.00	-	-
2	Maximum	12.00	-	-
3	Weighted Average	4.99	-	-

*Source: IEX, PXIL and HPX*

<b>Table-8: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF IEX, NOVEMBER 2022</b>			
<b>Sr.No</b>	<b>Term ahead contracts</b>	<b>Actual Scheduled Volume (MU)</b>	<b>Weighted Average Price (₹/kWh)</b>
1	Day Ahead Contingency Contracts	328.93	4.96
2	Daily Contracts	33.60	4.48
3	Weekly Contracts	165.60	4.52
4	Monthly Contracts	19.20	5.60
	<b>Total</b>	<b>547.33</b>	<b>4.82</b>

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

<b>Table-9: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF PXIL, NOVEMBER 2022</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	1.51	7.09
2	Day Ahead Contingency Contracts	170.22	5.20
3	Daily Contracts	222.00	4.11
4	Weekly Contracts	98.40	4.59
	<b>Total</b>	<b>492.13</b>	<b>4.59</b>

Source: PXIL

<b>Table-10: VOLUME AND PRICE OF ELECTRICITY IN TERM AHEAD MARKET OF HPX, NOVEMBER 2022</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	0.21	6.44
2	Day Ahead Contingency Contracts	104.82	5.52
3	Weekly Contracts	50.40	4.59
	<b>Total</b>	<b>155.43</b>	<b>5.22</b>

Source: HPX

<b>Table-11: VOLUME AND PRICE OF ELECTRICITY IN GREEN TERM AHEAD MARKET OF IEX, NOVEMBER 2022</b>			
<b>Sr. No</b>	<b>Green Term ahead contracts</b>	<b>Actual Scheduled Volume (MU)</b>	<b>Weighted Average Price (₹/kWh)</b>
1	Day Ahead Contingency Contracts	63.13	4.99
2	Daily Contracts	12.66	4.71
	<b>Total</b>	<b>75.79</b>	<b>4.95</b>

Source: IEX

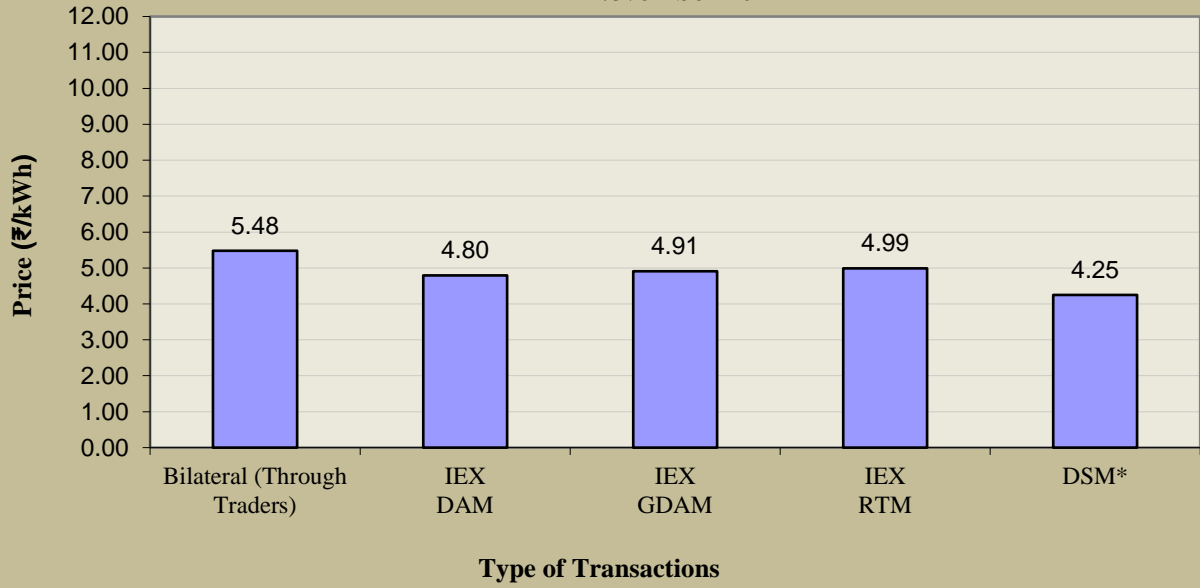
<b>Table-12: VOLUME AND PRICE OF ELECTRICITY IN GREEN TERM AHEAD MARKET OF PXIL, NOVEMBER 2022</b>			
<b>Sr. No</b>	<b>Green Term ahead contracts</b>	<b>Actual Scheduled Volume (MU)</b>	<b>Weighted Average Price (₹/kWh)</b>
1	Day Ahead Contingency Contracts	87.02	4.78
	<b>Total</b>	<b>87.02</b>	<b>4.78</b>

Source: PXIL

<b>Table-13: PRICE OF ELECTRICITY TRANSACTED THROUGH DSM, NOVEMBER 2022</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	4.25

Source: NLDC

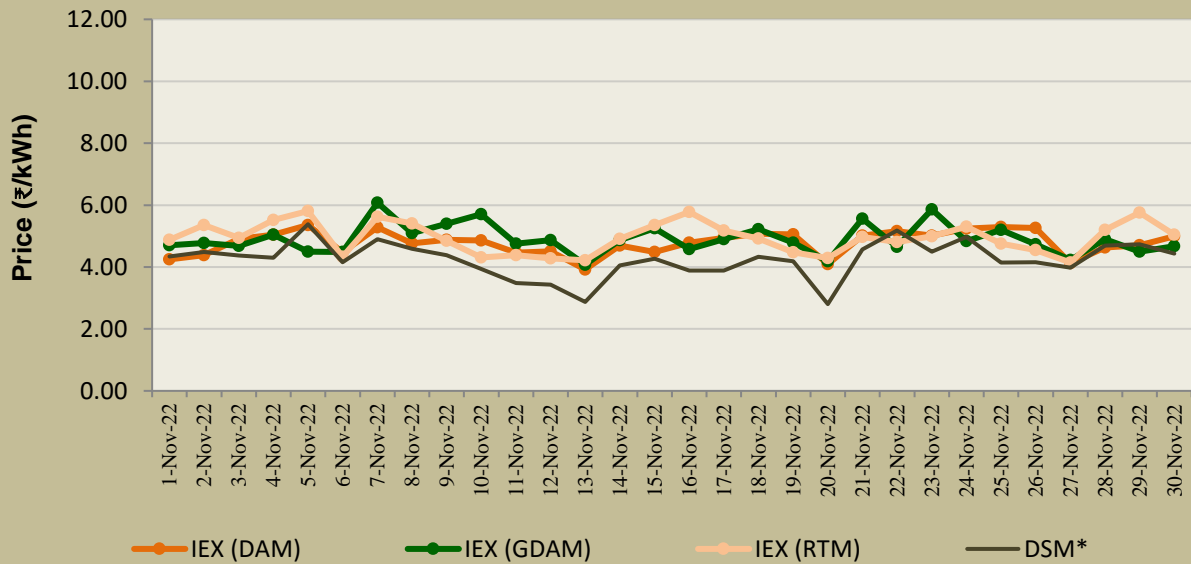
**Figure-6: Weighted Average Price of Short-term Transactions of Electricity, November 2022**



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

*\* Simple average price of DSM of the month*

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



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

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

<b>Table-14: VOLUME OF ELECTRICITY SOLD THROUGH BILATERAL, NOVEMBER 2022</b>		
<b>Name of the Entity</b>	<b>Volume of Sale (MUs)</b>	<b>% of Volume</b>
PUNJAB	601.40	11.94
RPREL	390.09	7.74
UTTAR PRADESH	317.85	6.31
DELHI	316.16	6.28
TELANGANA	218.10	4.33
SEMBCORP	213.57	4.24
GUJARAT	188.54	3.74
BIHAR	180.00	3.57
JINDAL STAGE-II	179.09	3.55
KARNATAKA	160.76	3.19
TEESTA STG3	157.42	3.12
SKS POWER	135.95	2.70
JITPL	132.08	2.62
AHEJ4L_SOLAR	119.88	2.38
DVC	117.88	2.34
MB POWER	112.11	2.23
ESSAR POWER	96.21	1.91
WEST BENGAL	95.40	1.89
ODISHA	94.30	1.87
JINDAL POWER	86.24	1.71
J & K	70.01	1.39
KOLYAT_SLR	68.44	1.36
ADHUNIK POWER LTD	64.70	1.28
AHEJ4L_WIND	57.83	1.15
ABC_BHDL2	57.72	1.15
NEEPCO STATIONS	53.77	1.07
RAJASTHAN	48.87	0.97
MAHARASHTRA	47.10	0.93
RKM POWER	45.53	0.90
ACME_HEERGARH	42.13	0.84
HIMACHAL PRADESH	41.47	0.82
DAGACHU	41.40	0.82
TATA_GREEN	39.78	0.79
AVAADASN_SLR	33.91	0.67
THARI_SLR	32.09	0.64
TATA_SLR	29.94	0.59
MP	28.23	0.56
SINGOLI BHATWARI HEP	25.20	0.50
RENEW_SR_SLR	24.55	0.49
ARUNACHAL PRADESH	24.01	0.48
HARYANA	18.79	0.37
JAYPEE NIGRIE	17.89	0.36
JORETHANG	17.66	0.35
AD HYDRO	17.45	0.35
DIKCHU HEP	16.24	0.32
SORANG HEP	14.68	0.29
KARCHAM WANGTOO	14.52	0.29
DB POWER	14.40	0.29
TASHIDENG HEP	11.39	0.23
SB_SLR	11.31	0.22
UTTARAKHAND	10.14	0.20
SIKKIM	9.26	0.18
NTPC STATIONS-SR	8.73	0.17
SAINJ HEP	7.41	0.15
TRN ENERGY	7.20	0.14

ONGC PALATANA	7.20	0.14
ANDHRA PRADESH	6.58	0.13
TAMIL NADU	5.93	0.12
REGL	5.78	0.11
ADANIHB_SLR	5.50	0.11
LANKO_AMK	5.04	0.10
GOA	3.03	0.06
CHHATTISGARH	2.52	0.05
NAGALAND	2.10	0.04
MEGHALAYA	2.08	0.04
GMR KAMALANGA	1.65	0.03
ADANIHB_WIND	1.24	0.02
ACBIL	1.08	0.02
ADANI_WIND	0.86	0.02
KERALA	0.70	0.01
<b>Total</b>	<b>5038.08</b>	<b>100.00</b>
<b>Volume Sold by top 5 Regional Entities</b>	<b>1843.60</b>	<b>36.59</b>



**Table-15: VOLUME OF ELECTRICITY PURCHASED THROUGH BILATERAL, NOVEMBER 2022**

Name of the Entity	Volume of Purchase (MUs)	% of Volume
MP	826.90	16.41
MAHARASHTRA	805.25	15.98
RAJASTHAN	562.39	11.16
GUJARAT	547.28	10.86
HIMACHAL PRADESH	353.96	7.03
ANDHRA PRADESH	275.53	5.47
HARYANA	272.42	5.41
DELHI	167.02	3.32
TELANGANA	144.78	2.87
BANGLADESH	140.01	2.78
BALCO	107.86	2.14
AMPS Hazira	93.90	1.86
DD&DNH	93.86	1.86
UTTAR PRADESH	93.23	1.85
ODISHA	92.82	1.84
WEST BENGAL	64.52	1.28
UTTARAKHAND	61.77	1.23
BIHAR	55.22	1.10
MEGHALAYA	51.84	1.03
CHHATTISGARH	45.72	0.91
GOA	41.92	0.83
PUNJAB	33.91	0.67
SIKKIM	27.63	0.55
MANIPUR	21.39	0.42
PONDICHERRY	19.24	0.38
KARNATAKA	16.14	0.32
DVC	10.50	0.21
RAIL	9.69	0.19
KERALA	0.73	0.01
ASSAM	0.65	0.01
<b>TOTAL</b>	<b>5038.08</b>	<b>100.00</b>
<b>Volume Purchased by top 5 Regional Entities</b>	<b>3095.79</b>	<b>61.45</b>

**Table-16: VOLUME OF ELECTRICITY SOLD IN DAY AHEAD MARKET THROUGH POWER EXCHANGES, NOVEMBER 2022**

<b>Name of the Entity</b>	<b>Volume of Sale (MUs)</b>	<b>% of Volume</b>
UTTAR PRADESH	1127.05	22.17
WEST BENGAL	977.42	19.23
CHHATTISGARH	481.41	9.47
BIHAR	463.21	9.11
SEMBCORP	249.46	4.91
NEPAL(NVVN)	176.39	3.47
TELANGANA	146.68	2.89
JINDAL STAGE-II	112.18	2.21
ODISHA	94.77	1.86
DB POWER	88.49	1.74
RPREL	88.48	1.74
JITPL	87.52	1.72
TEESTA HEP	78.47	1.54
HIMACHAL PRADESH	77.28	1.52
ACBIL	75.63	1.49
ESSAR POWER	69.08	1.36
MP	60.25	1.19
JINDAL POWER	59.54	1.17
KARNATAKA	58.00	1.14
HARYANA	50.49	0.99
MAHARASHTRA	48.68	0.96
JAYPEE NIGRIE	43.86	0.86
RKM POWER	40.33	0.79
ASSAM	34.58	0.68
GOA	30.87	0.61
MARUTI COAL	21.22	0.42
DVC	17.45	0.34
DELHI	17.34	0.34
NTPC STATIONS-SR	15.26	0.30
RAJASTHAN	14.52	0.29
CHANDIGARH	13.71	0.27
TAMIL NADU	13.63	0.27
ANDHRA PRADESH	12.81	0.25
ONGC PALATANA	12.55	0.25
SAINJ HEP	10.54	0.21
ASEJTL_SLR	9.73	0.19
GUJARAT	8.96	0.18
J & K	8.53	0.17
KARCHAM WANGTOO	8.00	0.16
MB POWER	7.58	0.15
KERALA	6.76	0.13
AD HYDRO	6.58	0.13
NAGALAND	6.09	0.12
MIZORAM	5.65	0.11
SKS POWER	5.46	0.11
GMR KAMALANGA	5.28	0.10
NEEPCO STATIONS	5.10	0.10
SIKKIM	4.39	0.09
CGPL	4.03	0.08
EMCO	3.29	0.06
DIKCHU HEP	3.09	0.06
PUNJAB	2.75	0.05
CHUZACHEN HEP	2.47	0.05
ARUNACHAL PRADESH	2.43	0.05

MEGHALAYA	2.16	0.04
LANCO BUDHIL	1.14	0.02
NTPC STATIONS-ER	0.84	0.02
NTPC STATIONS-NER	0.62	0.01
REGL	0.57	0.01
JORETHANG	0.56	0.01
OSTRO	0.52	0.01
SORANG HEP	0.44	0.01
SINGOLI BHATWARI HEP	0.42	0.01
TASHIDENG HEP	0.35	0.01
ADHUNIK POWER LTD	0.26	0.01
IL&FS	0.17	0.003
MANIPUR	0.15	0.003
UTTARAKHAND	0.14	0.003
DHARIWAL POWER	0.10	0.002
RENEW_SR_SLR	0.07	0.001
<b>Total</b>	<b>5083.85</b>	<b>100.00</b>
<b>Volume sold by top 5 Regional Entities</b>	<b>3298.55</b>	<b>64.88</b>

**Table-17: VOLUME OF ELECTRICITY PURCHASED IN DAY AHEAD MARKET THROUGH POWER EXCHANGES, NOVEMBER 2022**

<b>Name of the Entity</b>	<b>Volume of Purchase (MUs)</b>	<b>% of Volume</b>
GUJARAT	1460.86	28.74
RAJASTHAN	717.98	14.12
ANDHRA PRADESH	526.56	10.36
J & K	481.32	9.47
UTTARAKHAND	285.44	5.61
MAHARASHTRA	257.39	5.06
TAMIL NADU	218.90	4.31
UTTAR PRADESH	208.64	4.10
AMPS Hazira	186.41	3.67
DD&DNH	122.28	2.41
PUNJAB	114.10	2.24
WEST BENGAL	73.74	1.45
DELHI	63.83	1.26
TELANGANA	62.10	1.22
MP	55.36	1.09
KARNATAKA	50.36	0.99
ASSAM	47.14	0.93
ODISHA	45.24	0.89
HARYANA	31.05	0.61
NCR ALLAHABAD	25.51	0.50
KERALA	19.43	0.38
GOA	13.75	0.27
JHARKHAND	4.43	0.09
HIMACHAL PRADESH	3.83	0.08
CHANDIGARH	3.10	0.06
MEGHALAYA	2.33	0.05
BIHAR	1.34	0.03
BALCO	0.78	0.02
CHHATTISGARH	0.46	0.01
TRIPURA	0.18	0.004
<b>TOTAL</b>	<b>5083.85</b>	<b>100.00</b>
<b>Volume purchased by top 5 Regional Entities</b>	<b>3472.16</b>	<b>68.30</b>

**Table-18: VOLUME OF ELECTRICITY SOLD IN GREEN DAY AHEAD MARKET THROUGH POWER EXCHANGES, NOVEMBER 2022**

<b>Name of the Entity</b>	<b>Volume of Sale (MUs)</b>	<b>% of Volume</b>
KARNATAKA	163.58	56.73
ADANI_SLR	39.42	13.67
TELANGANA	23.22	8.05
ANDHRA PRADESH	13.26	4.60
J & K	11.75	4.08
NTPC STATIONS-SR	9.73	3.38
OSTRO	6.62	2.30
ADANI_WIND	5.91	2.05
MP	3.90	1.35
UTTAR PRADESH	2.68	0.93
HIMACHAL PRADESH	2.40	0.83
RAJASTHAN	2.00	0.69
SB_SLR	1.73	0.60
SIKKIM	1.25	0.43
MAHARASHTRA	0.86	0.30
DELHI	0.01	0.003
<b>Total</b>	<b>288.32</b>	<b>100.00</b>
<b>Volume sold by top 5 Regional Entities</b>	<b>251.23</b>	<b>87.13</b>

**Table-19: VOLUME OF ELECTRICITY PURCHASED IN GREEN DAY AHEAD MARKET THROUGH POWER EXCHANGES, NOVEMBER 2022**

<b>Name of the Entity</b>	<b>Volume of Purchase (MUs)</b>	<b>% of Volume</b>
MAHARASHTRA	51.28	17.79
UTTAR PRADESH	37.03	12.84
MP	35.39	12.27
DELHI	33.04	11.46
GUJARAT	27.81	9.65
DVC	25.22	8.75
KERALA	22.76	7.89
KARNATAKA	17.52	6.08
TAMIL NADU	13.53	4.69
NCR ALLAHABAD	7.42	2.57
DD&DNH	6.42	2.23
BALCO	2.23	0.77
ODISHA	2.04	0.71
JHARKHAND	1.87	0.65
MEGHALAYA	1.20	0.42
PUNJAB	1.10	0.38
ASSAM	1.03	0.36
HARYANA	0.85	0.29
ANDHRA PRADESH	0.52	0.18
TELANGANA	0.05	0.02
<b>TOTAL</b>	<b>288.32</b>	<b>100.00</b>
<b>Volume purchased by top 5 Regional Entities</b>	<b>184.55</b>	<b>64.01</b>

**Table-20: VOLUME OF ELECTRICITY SOLD IN REAL TIME MARKET THROUGH POWER EXCHANGES, NOVEMBER 2022**

<b>Name of the Entity</b>	<b>Volume of Sale (MUs)</b>	<b>% of Volume</b>
BIHAR	307.51	21.86
WEST BENGAL	138.55	9.85
UTTAR PRADESH	127.61	9.07
ODISHA	94.57	6.72
MP	76.13	5.41
CHHATTISGARH	71.29	5.07
NEEPCO STATIONS	69.73	4.96
TELANGANA	68.62	4.88
HIMACHAL PRADESH	46.04	3.27
DELHI	37.43	2.66
SEMBCORP	35.83	2.55
TRIPURA	35.15	2.50
KARNATAKA	23.86	1.70
ANDHRA PRADESH	18.94	1.35
ASSAM	17.67	1.26
MB POWER	16.89	1.20
MAHARASHTRA	15.74	1.12
NTPC STATIONS-ER	13.12	0.93
RAJASTHAN	12.31	0.88
RKM POWER	12.06	0.86
NTPC STATIONS-WR	11.55	0.82
HARYANA	11.19	0.80
RPREL	10.28	0.73
J & K	9.65	0.69
ESSAR POWER	9.19	0.65
TAMIL NADU	8.08	0.57
GUJARAT	7.93	0.56
JINDAL STAGE-II	7.46	0.53
MANIPUR	7.18	0.51
TRN ENERGY	5.74	0.41
NLC	5.63	0.40
MEGHALAYA	5.56	0.40
TEESTA HEP	5.32	0.38
DVC	5.16	0.37
ONGC PALATANA	4.88	0.35
GMR KAMALANGA	4.52	0.32
SIKKIM	4.34	0.31
PUNJAB	3.77	0.27
KERALA	3.44	0.24
NTPC STATIONS-SR	3.34	0.24
JITPL	3.21	0.23
CGPL	2.79	0.20
JINDAL POWER	2.78	0.20
MARUTI COAL	2.70	0.19
DD&DNH	2.51	0.18
ACBIL	2.51	0.18
EMCO	2.36	0.17
CHANDIGARH	2.21	0.16
NTPC STATIONS-NER	1.93	0.14
SAINJ HEP	1.51	0.11
DB POWER	1.50	0.11
SKS POWER	1.31	0.09
SINGOLI BHATWARI HEP	1.24	0.09
ADHUNIK POWER LTD	1.23	0.09

RENEW_SR_SLR	1.07	0.08
OSTRO	0.63	0.04
NAGALAND	0.38	0.03
UTTARAKHAND	0.34	0.02
ARUNACHAL PRADESH	0.33	0.02
DIKCHU HEP	0.27	0.02
REGL	0.22	0.02
JORETHANG	0.19	0.01
JHABUA POWER_MP	0.15	0.01
IL&FS	0.09	0.01
LANCO BUDHIL	0.06	0.00
KARCHAM WANGTOO	0.04	0.00
TASHIDENG HEP	0.03	0.002
SORANG HEP	0.02	0.001
<b>Total</b>	<b>1406.84</b>	<b>100.00</b>
<b>Volume sold by top 5 Regional Entities</b>	<b>744.37</b>	<b>52.91</b>



<b>Table-21: VOLUME OF ELECTRICITY PURCHASED IN REAL TIME MARKET THROUGH POWER EXCHANGES, NOVEMBER 2022</b>		
<b>Name of the Entity</b>	<b>Volume of Purchase (MUs)</b>	<b>% of Volume</b>
RAJASTHAN	237.14	16.86
J & K	232.03	16.49
GUJARAT	145.75	10.36
MAHARASHTRA	139.75	9.93
TELANGANA	133.82	9.51
TAMIL NADU	84.02	5.97
ANDHRA PRADESH	51.28	3.64
DELHI	51.25	3.64
UTTAR PRADESH	45.06	3.20
PUNJAB	41.81	2.97
AMPS Hazira	33.22	2.36
HARYANA	31.97	2.27
WEST BENGAL	29.68	2.11
ASSAM	27.58	1.96
DD&DNH	20.06	1.43
KARNATAKA	16.36	1.16
UTTARAKHAND	15.01	1.07
ODISHA	13.98	0.99
KERALA	13.05	0.93
MEGHALAYA	12.83	0.91
MP	9.63	0.68
JHARKHAND	3.44	0.24
NCR ALLAHABAD	2.74	0.19
GOA	2.52	0.18
TRIPURA	2.34	0.17
HIMACHAL PRADESH	2.17	0.15
BALCO	2.08	0.15
MANIPUR	1.61	0.11
DVC	1.36	0.10
SIKKIM	1.22	0.09
CHHATTISGARH	0.63	0.04
SAINJ HEP	0.47	0.03
CHANDIGARH	0.31	0.02
BIHAR	0.29	0.02
JINDAL POWER	0.26	0.02
NAGALAND	0.09	0.01
ARUNACHAL PRADESH	0.01	0.001
<b>TOTAL</b>	<b>1406.84</b>	<b>100.00</b>
<b>Volume purchased by top 5 Regional Entities</b>	<b>888.48</b>	<b>63.15</b>

**Table-22: VOLUME OF ELECTRICITY UNDER DRAWAL (EXPORTED) THROUGH DSM, NOVEMBER 2022**

Name of the Entity	Volume of Under drawal (MUs)	% of Volume
KAPP 3&4	213.38	11.24
MP	105.99	5.58
NHPC STATIONS	84.83	4.47
NTPC STATIONS-WR	79.96	4.21
UTTAR PRADESH	78.61	4.14
CHUKHA HEP	65.93	3.47
GUJARAT	63.05	3.32
MAHARASHTRA	59.06	3.11
KARNATAKA	55.53	2.93
TELANGANA	49.63	2.61
PUNJAB	49.35	2.60
TAMIL NADU	49.06	2.58
RAJASTHAN	42.58	2.24
SASAN UMPP	40.38	2.13
JHARKHAND	34.85	1.84
ODISHA	34.40	1.81
DELHI	32.30	1.70
HARYANA	32.01	1.69
BIHAR	31.13	1.64
ANDHRA PRADESH	30.60	1.61
NTPC STATIONS-NR	30.16	1.59
WEST BENGAL	26.49	1.40
J & K	25.47	1.34
DVC	22.84	1.20
NTPC STATIONS-ER	22.28	1.17
NTPC STATIONS-SR	19.81	1.04
CHHATTISGARH	19.70	1.04
NEEPCO STATIONS	19.02	1.00
AMPS Hazira	17.28	0.91
NEPAL(NVVN)	16.77	0.88
UTTARAKHAND	15.91	0.84
BBMB	15.76	0.83
NLC	12.28	0.65
KERALA	11.28	0.59
HIMACHAL PRADESH	10.19	0.54
PONDICHERRY	9.58	0.50
MB POWER	7.82	0.41
CLEAN_SLR	7.35	0.39
NJPC	7.23	0.38
SIKKIM	6.83	0.36
SBESS	6.70	0.35
AZURE43_SLR	6.39	0.34
TASHIDENG HEP	6.36	0.34
RKM POWER	6.13	0.32
TRIPURA	6.06	0.32
GIWEL_BHUI	5.87	0.31
AVAADASN_SLR	5.77	0.30
ASSAM	5.74	0.30
KURICHU HEP	5.34	0.28
RENEW_BHUI	4.85	0.26
MAITHON POWER LTD	4.83	0.25
TEHRI	4.81	0.25
CHANDIGARH	4.76	0.25
RAMPUR HEP	4.45	0.23
SBG_NPK	4.38	0.23
OSTRO	4.33	0.23
RONGNICHU HEP	4.30	0.23
ACBIL	4.27	0.22
LANKO_AMK	4.14	0.22
AGEMPL BHUI	4.12	0.22

JAYPEE NIGRIE	4.12	0.22
TEESTA HEP	4.11	0.22
ACME_RUMS	4.01	0.21
MIZORAM	3.94	0.21
IGSTPS	3.87	0.20
MYTRAH_TCN	3.87	0.20
TALA HEP	3.85	0.20
GIWEL_TCN	3.82	0.20
JORETHANG	3.81	0.20
ASEJTL_SLR	3.78	0.20
GOA	3.70	0.19
MANGDECHU HEP	3.63	0.19
JINDAL POWER	3.48	0.18
KARCHAM WANGTOO	3.47	0.18
MAHINDRA_RUMS	3.27	0.17
JITPL	3.26	0.17
SBG_PVGD	3.12	0.16
NTPC_ANTP	3.08	0.16
RENEWSB	3.04	0.16
AVADARJHN_SLR	3.00	0.16
DD&DNH	2.98	0.16
BARC	2.97	0.16
BETAM_TCN	2.97	0.16
ACME_HEERGARH	2.94	0.15
ACME_SLR	2.93	0.15
KOTESHWAR	2.89	0.15
MTPS II	2.81	0.15
EMCO	2.80	0.15
AYANA_RP1	2.80	0.15
NTPC STATIONS-NER	2.79	0.15
ARUNACHAL PRADESH	2.79	0.15
ALFANAR_BHUJ	2.79	0.15
RENEW_BHACHAU	2.69	0.14
DB POWER	2.67	0.14
ORANGE_TCN	2.59	0.14
MEGHALAYA	2.58	0.14
BRBCL,NABINAGAR	2.54	0.13
ARINSUM_RUMS	2.52	0.13
JINDAL STAGE-II	2.49	0.13
EDEN_SLR	2.37	0.12
RAIL	2.34	0.12
SEMBCORP	2.32	0.12
SORANG HEP	2.32	0.12
SKRPL	2.28	0.12
RENEW_SLR_BKN	2.24	0.12
ABC_BHDL2	2.12	0.11
THARI_SLR	2.07	0.11
SBSR_SLR	2.00	0.11
NPGC	1.97	0.10
BALCO	1.97	0.10
SB_SLR	1.92	0.10
MANIPUR	1.91	0.10
TRN ENERGY	1.90	0.10
CLEANSR_SLR	1.87	0.10
RENEWURJA_SLR	1.80	0.09
TEESTA STG3	1.76	0.09
KSK MAHANADI	1.74	0.09
SB6_POKARAN	1.71	0.09
RENEW_SR_SLR	1.69	0.09
NAPP	1.62	0.09
AZURE41_SLR	1.62	0.09
RENEWJH_SLR	1.60	0.08
MRPL	1.56	0.08

CGPL	1.55	0.08
RENEWSW_SLR	1.55	0.08
AZURE34_SLR	1.52	0.08
NETCL VALLUR	1.49	0.08
TATA_PVGD	1.47	0.08
FORTUM1_PVGD	1.41	0.07
RANGANADI HEP	1.34	0.07
AZURE_SLR	1.33	0.07
GIPCL_RADHANESDA	1.30	0.07
TATA_GREEN	1.30	0.07
FORTUM2_PVGD	1.26	0.07
MSUPL_BHDL2	1.23	0.07
TPREL_RADHANESDA	1.20	0.06
NAGALAND	1.20	0.06
THERMAL POWERTECH	1.16	0.06
RAP C	1.16	0.06
ADY1_PVGD	1.15	0.06
ADY2_PVGD	1.15	0.06
ADY13_PVGD	1.15	0.06
ADY10_PVGD	1.15	0.06
ADY3_PVGD	1.15	0.06
ADY6_PVGD	1.15	0.06
JHABUA POWER_MP	1.11	0.06
BANGLADESH	1.09	0.06
COASTGEN	1.09	0.06
TATA_ANTP	1.07	0.06
GSECL_Radhanesda	1.07	0.06
ESPL_RADHANESDA	1.05	0.06
CHUZACHEN HEP	1.03	0.05
ONGC PALATANA	1.01	0.05
SPRNG_NPKUNTA	1.00	0.05
LOKTAK	0.97	0.05
ARERJL_SLR	0.95	0.05
PARE HEP	0.93	0.05
AYANA_NPKUNTA	0.92	0.05
AD HYDRO	0.91	0.05
RANGIT HEP	0.90	0.05
FRV_NPK	0.90	0.05
NSPCL	0.83	0.04
AZURE_ANTP	0.81	0.04
TATA_SLR	0.81	0.04
AVIKIRAN	0.80	0.04
OSTRO Hiriyur	0.80	0.04
FRV_ANTP	0.77	0.04
AKSP_ANTP	0.76	0.04
SAINJ HEP	0.76	0.04
ABSP_ANTP	0.76	0.04
AHSP_ANTP	0.74	0.04
DIKCHU HEP	0.74	0.04
AVAADA2_PVGD	0.73	0.04
ESSAR POWER	0.64	0.03
AVAADA1_PVGD	0.64	0.03
RPREL	0.63	0.03
GRT_JPL	0.62	0.03
POWERICA	0.60	0.03
SESPL	0.57	0.03
AZURE_PVGD	0.54	0.03
PARAM_PVGD	0.54	0.03
ADANI GREEN	0.54	0.03
SINGOLI BHATWARI HEP	0.54	0.03
GMR KAMALANGA	0.53	0.03
RAP B	0.51	0.03
SPRING_PUGALUR	0.48	0.03

RENEW_SLR	0.47	0.02
SKS POWER	0.44	0.02
LANCO BUDHIL	0.42	0.02
NTPL	0.42	0.02
ADHUNIK POWER LTD	0.40	0.02
HVDC RAIGARH	0.35	0.02
DOYANG HEP	0.35	0.02
DHARIWAL POWER	0.29	0.02
RGPPL	0.24	0.01
AZURE_MAPLE_SLR	0.24	0.01
ARS_PVGD	0.22	0.01
NFF	0.19	0.01
HVDC CHAMPA	0.19	0.01
YARROW_PVGD	0.18	0.01
AKS_PVGD	0.17	0.01
VINDHYACHAL HVDC	0.17	0.01
RENEW_PVGD	0.14	0.01
RSTPS_FSPP	0.13	0.01
IL&FS	0.11	0.01
KSMPL_SLR	0.11	0.01
HVDC ALPD	0.09	0.005
KREDL_PVGD	0.07	0.003
BHADRAVATHI HVDC	0.03	0.002
SHREE CEMENT	0.03	0.002
HVDC PUS	0.01	0.0004
DCPP	0.005	0.0003
INOX_BHUJ	0.001	0.00005
<b>Total</b>	<b>1898.32</b>	<b>100.00</b>
<b>Volume Exported by top 5 Regional Entities</b>	<b>562.77</b>	<b>29.65</b>

**Table-23: VOLUME OF ELECTRICITY OVER DRAWAL (IMPORTED) THROUGH DSM,  
NOVEMBER 2022**

<b>Name of the Entity</b>	<b>Volume of Over drawal (MUs)</b>	<b>% of Volume</b>
NTPC STATIONS-WR	147.24	7.40
NTPC STATIONS-ER	118.25	5.94
NTPC STATIONS-NR	107.15	5.38
RAJASTHAN	99.57	5.00
MAHARASHTRA	80.00	4.02
UTTAR PRADESH	72.05	3.62
HARYANA	69.43	3.49
GUJARAT	63.31	3.18
KARNATAKA	57.34	2.88
NTPC STATIONS-SR	53.30	2.68
TAMIL NADU	53.19	2.67
ANDHRA PRADESH	46.66	2.34
J & K	36.25	1.82
TELANGANA	35.32	1.77
TALA HEP	33.66	1.69
NETCL VALLUR	33.36	1.68
MP	32.49	1.63
ODISHA	27.23	1.37
WEST BENGAL	26.90	1.35
NLC	26.68	1.34
KERALA	25.81	1.30
SEMBCORP	24.64	1.24
DVC	24.50	1.23
AMPS Hazira	21.98	1.10
THERMAL POWERTECH	21.22	1.07
MANGDECHU HEP	20.08	1.01
PUNJAB	19.41	0.98
RPREL	19.10	0.96
BIHAR	18.74	0.94
UTTARAKHAND	18.68	0.94
CHHATTISGARH	18.11	0.91
HIMACHAL PRADESH	17.17	0.86
AGEMPL BHUJ	17.15	0.86
CGPL	15.00	0.75
GIWEL_BHUJ	14.36	0.72
NHPC STATIONS	13.43	0.67
ASSAM	13.04	0.66
NPGC	12.96	0.65
DAGACHU	12.05	0.61
JHARKHAND	10.96	0.55
RENEW_BHUJ	10.38	0.52
OSTRO	10.01	0.50
RENEW_BHACHAU	9.79	0.49
ESSAR POWER	9.26	0.47
GOA	9.10	0.46
IL&FS	9.06	0.46
BRBCL,NABINAGAR	9.04	0.45
NTPL	8.51	0.43
DELHI	7.57	0.38
ORANGE_TCN	7.49	0.38
IGSTPS	7.41	0.37
GIWEL_TCN	7.28	0.37
ALFANAR_BHUJ	7.02	0.35
AVAADASN_SLR	6.97	0.35
ARUNACHAL PRADESH	6.42	0.32
DD&DNH	6.31	0.32
SKRPL	6.27	0.31
JITPL	6.01	0.30
AVADARJHN_SLR	5.73	0.29
RAIL	5.36	0.27

TATA_SLR	5.27	0.26
ADHUNIK POWER LTD	5.21	0.26
TATA_GREEN	5.15	0.26
MEGHALAYA	5.12	0.26
MB POWER	5.09	0.26
COASTGEN	4.91	0.25
NTPC_ANTP	4.90	0.25
NTPC STATIONS-NER	4.74	0.24
GMR KAMALANGA	4.66	0.23
RKM POWER	4.40	0.22
SBESS	4.36	0.22
NEPAL(NVVN)	4.22	0.21
BETAM_TCN	4.15	0.21
CHANDIGARH	4.01	0.20
BALCO	3.81	0.19
BBMB	3.71	0.19
BANGLADESH	3.58	0.18
SBG_PVGD	3.58	0.18
SASAN UMPP	3.46	0.17
AZURE43_SLR	3.44	0.17
AZURE_MAPLE_SLR	3.38	0.17
SBG_NPK	3.34	0.17
ASEJTL_SLR	3.34	0.17
AZURE41_SLR	3.31	0.17
PONDICHERRY	3.24	0.16
ACME_SLR	3.17	0.16
SB6_POKARAN	3.16	0.16
DB POWER	3.11	0.16
ABC_BHDL2	3.09	0.16
SBSR_SLR	3.08	0.15
NEEPCO STATIONS	3.02	0.15
KSK MAHANADI	2.94	0.15
JINDAL STAGE-II	2.64	0.13
TRIPURA	2.60	0.13
SORANG HEP	2.57	0.13
SESPL	2.54	0.13
RENEW_SLR_BKN	2.53	0.13
JHABUA POWER_MP	2.53	0.13
THAR1_SLR	2.38	0.12
NJPC	2.38	0.12
AYANA_RP1	2.37	0.12
OSTRO Hiriyur	2.32	0.12
TATA_ANTP	2.29	0.12
ARERJL_SLR	2.29	0.12
SKS POWER	2.26	0.11
SIKKIM	2.19	0.11
MANIPUR	2.19	0.11
NSPCL	2.19	0.11
RENEW_SR_SLR	2.17	0.11
ACME_HEERGARH	2.08	0.10
KARCHAM WANGTOO	2.05	0.10
AZURE_SLR	1.89	0.09
RAP C	1.88	0.09
FORTUM1_PVGD	1.85	0.09
TEESTA STG3	1.79	0.09
ARINSUM_RUMS	1.78	0.09
KURICHU HEP	1.75	0.09
RENEWURJA_SLR	1.74	0.09
NAGALAND	1.68	0.08
TATA_PVGD	1.62	0.08
POWERICA	1.60	0.08
TEHRI	1.59	0.08
MYTRAH_TCN	1.59	0.08

SPRNG_NPKUNTA	1.58	0.08
NAPP	1.57	0.08
MAITHON POWER LTD	1.54	0.08
ADY1_PVGD	1.53	0.08
ADY2_PVGD	1.53	0.08
ADY13_PVGD	1.53	0.08
ADY10_PVGD	1.53	0.08
CLEANSR_SLR	1.52	0.08
JINDAL POWER	1.49	0.08
ADY3_PVGD	1.43	0.07
ADY6_PVGD	1.43	0.07
MRPL	1.36	0.07
SB_SLR	1.35	0.07
EDEN_SLR	1.30	0.07
CLEAN_SLR	1.26	0.06
MSUPL_BHDL2	1.26	0.06
RENEWSB	1.24	0.06
RENEWJH_SLR	1.24	0.06
AKSP_ANTP	1.15	0.06
AHSP_ANTP	1.14	0.06
RANGANADI HEP	1.13	0.06
ABSP_ANTP	1.12	0.06
MTPS II	1.12	0.06
AYANA_NPKUNTA	1.11	0.06
RENEWSW_SLR	1.11	0.06
AVIKIRAN	1.08	0.05
AZURE34_SLR	1.03	0.05
SPRING_PUGALUR	1.02	0.05
RAP B	1.02	0.05
RGPPL	1.01	0.05
DGEN MEGA POWER	0.98	0.05
ESPL_RADHANESDA	0.96	0.05
JAYPEE NIGRIE	0.89	0.04
JORETHANG	0.84	0.04
CHUZACHEN HEP	0.82	0.04
ACME_RUMS	0.82	0.04
MAHINDRA_RUMS	0.80	0.04
FORTUM2_PVGD	0.79	0.04
FRV_ANTP	0.78	0.04
KSMPL_SLR	0.76	0.04
FRV_NPK	0.75	0.04
DHARIWAL POWER	0.73	0.04
AZURE_ANTP	0.69	0.03
PARAM_PVGD	0.68	0.03
GRT_JPL	0.66	0.03
LANKO_AMK	0.66	0.03
SAINJ HEP	0.65	0.03
SHREE CEMENT	0.64	0.03
ADANI GREEN	0.61	0.03
AVAADA1_PVGD	0.61	0.03
KREDL_PVGD	0.59	0.03
EMCO	0.58	0.03
AVAADA2_PVGD	0.57	0.03
RONGNICHU HEP	0.56	0.03
SIMHAPURI	0.53	0.03
MEENAKSHI	0.51	0.03
TPREL_RADHANESDA	0.48	0.02
LANKO KONDAPALLI	0.47	0.02
TASHIDENG HEP	0.46	0.02
RENEW_SLR	0.46	0.02
DIKCHU HEP	0.46	0.02
AZURE_PVGD	0.45	0.02
RANGIT HEP	0.45	0.02



GIPCL_RADHANESDA	0.43	0.02
TRN ENERGY	0.41	0.02
KOTESHWAR	0.41	0.02
ACBIL	0.36	0.02
GSECL_Radhanesda	0.36	0.02
RAMPUR HEP	0.34	0.02
RSTPS_FSPP	0.32	0.02
MIZORAM	0.30	0.02
RENEW_PVGD	0.29	0.01
YARROW_PVGD	0.27	0.01
LOKTAK	0.26	0.01
AKS_PVGD	0.26	0.01
ARS_PVGD	0.26	0.01
ONGC PALATANA	0.24	0.01
PARE HEP	0.23	0.01
AD HYDRO	0.20	0.01
SINGOLI BHATWARI HEP	0.19	0.01
LANCO BUDHIL	0.13	0.01
NEP	0.13	0.01
DOYANG HEP	0.11	0.01
HVDC ALPD	0.10	0.01
NFF	0.10	0.01
HVDC PUS	0.07	0.004
CHUKHA HEP	0.07	0.003
TEESTA HEP	0.03	0.002
DCPP	0.02	0.001
HVDC RAIGARH	0.02	0.001
HVDC CHAMPA	0.02	0.001
BARC	0.01	0.001
BHADRAVATHI HVDC	0.011	0.0005
VINDHYACHAL HVDC	0.00003	0.000001
<b>TOTAL</b>	<b>1990.43</b>	<b>100.00</b>
<b>Volume Imported by top 5 Regional Entities</b>	<b>552.21</b>	<b>27.74</b>

<b>Table-24: TOTAL VOLUME OF NET SHORT-TERM TRANSACTIONS OF ELECTRICITY (REGIONAL ENTITY-WISE), NOVEMBER 2022</b>		
<b>S. No.</b>	<b>Name of the Entity</b>	<b>Total volume of net short-term transactions of electricity*</b>
1	GUJARAT	1976.54
2	RAJASTHAN	1496.81
3	MAHARASHTRA	1162.23
4	ANDHRA PRADESH	818.35
5	MP	685.27
6	J & K	624.18
7	UTTARAKHAND	354.37
8	AMPS Hazira	318.23
9	HARYANA	293.22
10	TAMIL NADU	292.95
11	DD&DNH	243.44
12	HIMACHAL PRADESH	199.76
13	BANGLADESH	142.50
14	BALCO	114.79
15	NTPC STATIONS-ER	82.01
16	NTPC STATIONS-NR	76.99
17	MEGHALAYA	60.94
18	KERALA	59.60
19	NTPC STATIONS-WR	55.73
20	NCR ALLAHABAD	35.67
21	NETCL VALLUR	31.88
22	ASSAM	31.45
23	TALA HEP	29.80
24	GOA	29.67
25	THERMAL POWERTECH	20.06
26	MANGDECHU HEP	16.45
27	MANIPUR	15.94
28	AGEMPL BHUJ	13.02
29	PONDICHERRY	12.89
30	RAIL	12.71
31	NPGC	10.99
32	NLC	8.77
33	IL&FS	8.69
34	GIWEL_BHUJ	8.49
35	NTPL	8.09
36	RENEW_BHACHAU	7.10
37	CGPL	6.62
38	BRBCL,NABINAGAR	6.50
39	RENEW_BHUJ	5.53
40	SIKKIM	4.97
41	ORANGE_TCN	4.90
42	ALFANAR_BHUJ	4.23
43	SKRPL	3.98
44	COASTGEN	3.82
45	IGSTPS	3.53
46	GIWEL_TCN	3.47
47	AZURE_MAPLE_SLR	3.14
48	AVADARJHN_SLR	2.73
49	SESPL	1.98
50	NTPC_ANTP	1.82
51	AZURE41_SLR	1.70
52	OSTRO Hiriyur	1.52
53	SB6_POKARAN	1.45
54	NSPCL	1.36
55	ARERJL_SLR	1.34
56	JHABUA POWER_MP	1.27
57	TATA_ANTP	1.22
58	KSK MAHANADI	1.20
59	BETAM_TCN	1.19
60	SBSR_SLR	1.08
61	POWERICA	1.00
62	DGEN MEGA POWER	0.98

63	RGPPL	0.77
64	RAP C	0.72
65	KSMPL_SLR	0.65
66	SHREE CEMENT	0.61
67	SPRNG_NPKUNTA	0.57
68	AZURE_SLR	0.56
69	SPRING_PUGALUR	0.54
70	SIMHAPURI	0.53
71	KREDL_PVGD	0.52
72	MEENAKSHI	0.51
73	RAP B	0.51
74	LANKO KONDAPALLI	0.47
75	SBG_PVGD	0.46
76	FORTUM1_PVGD	0.43
77	AHSP_ANTP	0.39
78	AKSP_ANTP	0.39
79	ADY1_PVGD	0.37
80	ADY2_PVGD	0.37
81	ADY13_PVGD	0.37
82	ADY10_PVGD	0.37
83	ABSP_ANTP	0.37
84	DHARIWAL POWER	0.34
85	RENEW_SLR_BKN	0.29
86	AVIKIRAN	0.28
87	ADY3_PVGD	0.28
88	ADY6_PVGD	0.28
89	ACME_SLR	0.24
90	AYANA_NPKUNTA	0.19
91	RSTPS_FSPP	0.18
92	RENEW_PVGD	0.16
93	TATA_PVGD	0.15
94	PARAM_PVGD	0.14
95	NEP	0.13
96	YARROW_PVGD	0.09
97	AKS_PVGD	0.09
98	ADANI GREEN	0.08
99	HVDC PUS	0.06
100	GRT_JPL	0.04
101	ARS_PVGD	0.04
102	MSUPL_BHDL2	0.03
103	DCPP	0.02
104	HVDC ALPD	0.01
105	FRV_ANTP	0.001
106	INOX_BHUJ	-0.001
107	RENEW_SLR	-0.01
108	BHADRAVATHI HVDC	-0.02
109	AVAADA1_PVGD	-0.03
110	NAPP	-0.05
111	RENEWURJA_SLR	-0.06
112	ESPL_RADHANESDA	-0.08
113	NFF	-0.09
114	AZURE_PVGD	-0.09
115	AZURE_ANTP	-0.13
116	FRV_NPK	-0.15
117	AVAADA2_PVGD	-0.16
118	VINDHYACHAL HVDC	-0.17
119	HVDC CHAMPA	-0.17
120	MRPL	-0.20
121	RANGANADI HEP	-0.21
122	DOYANG HEP	-0.24
123	HVDC RAIGARH	-0.33
124	CLEANSPL_SLR	-0.34
125	RENEWJH_SLR	-0.36
126	AYANA_RP1	-0.43
127	RENEWSW_SLR	-0.44
128	RANGIT HEP	-0.45

129	FORTUM2_PVGD	-0.47
130	AZURE34_SLR	-0.49
131	NTPC STATIONS-NER	-0.60
132	PARE HEP	-0.70
133	GSECL_Radhansda	-0.70
134	LOKTAK	-0.71
135	TPREL_RADHANESDA	-0.72
136	ARINSUM_RUMS	-0.74
137	GIPCL_RADHANESDA	-0.87
138	SBG_NPK	-1.04
139	EDEN_SLR	-1.07
140	ADANIHB_WIND	-1.24
141	LANCO BUDHIL	-1.48
142	MTPS II	-1.69
143	RENEWSB	-1.80
144	OSTRO	-2.10
145	MYTRAH_TCN	-2.28
146	SBESS	-2.34
147	MAHINDRA_RUMS	-2.47
148	KOTESHWAR	-2.48
149	CHUZACHEN HEP	-2.68
150	AZURE43_SLR	-2.95
151	BARC	-2.96
152	ACME_RUMS	-3.20
153	TEHRI	-3.22
154	MAITHON POWER LTD	-3.29
155	NTPC STATIONS-SR	-3.58
156	KURICHU HEP	-3.58
157	RONGNICHU HEP	-3.74
158	RAMPUR HEP	-4.11
159	NJPC	-4.85
160	ADANIHB_SLR	-5.50
161	CLEAN_SLR	-6.08
162	REGL	-6.56
163	ADANI_WIND	-6.77
164	GMR KAMALANGA	-7.32
165	EMCO	-7.88
166	NAGALAND	-8.00
167	LANKO_AMK	-8.52
168	MIZORAM	-9.29
169	ASEJTL_SLR	-10.17
170	BBMB	-12.05
171	CHANDIGARH	-13.25
172	SB_SLR	-13.61
173	JHARKHAND	-14.15
174	TRN ENERGY	-14.42
175	SORANG HEP	-14.89
176	TASHIDENG HEP	-17.68
177	SAINJ HEP	-19.10
178	DIKCHU HEP	-19.88
179	JORETHANG	-21.38
180	ARUNACHAL PRADESH	-23.13
181	MARUTI COAL	-23.92
182	KARCHAM WANGTOO	-23.97
183	AD HYDRO	-24.74
184	RENEW_SR_SLR	-25.21
185	ONGC PALATANA	-25.40
186	TATA_SLR	-25.48
187	SINGOLI BHATWARI HEP	-27.21
188	DAGACHU	-29.35
189	THARI_SLR	-31.77
190	AVAADASN_SLR	-32.71
191	TATA_GREEN	-35.93
192	TRIPURA	-36.09
193	SASAN UMPP	-36.92
194	ADANI_SLR	-39.42

195	ACME_HEERGARH	-42.99
196	ABC_BHDL2	-56.74
197	AHEJ4L_WIND	-57.83
198	ADHUNIK POWER LTD	-61.39
199	JAYPEE NIGRIE	-64.98
200	CHUKHA HEP	-65.87
201	KOLYAT_SLR	-68.44
202	NHPC STATIONS	-71.40
203	DELHI	-80.54
204	ACBIL	-83.13
205	TEESTA HEP	-87.86
206	RKM POWER	-99.65
207	DVC	-101.74
208	DB POWER	-103.94
209	AHEJ4L_SOLAR	-119.88
210	TELANGANA	-130.16
211	ODISHA	-136.72
212	MB POWER	-139.31
213	SKS POWER	-140.90
214	NEEPCO STATIONS	-144.61
215	JINDAL POWER	-150.29
216	TEESTA STG3	-157.39
217	ESSAR POWER	-165.86
218	NEPAL(NVVN)	-188.94
219	KAPP 3&4	-213.38
220	JITPL	-220.06
221	JINDAL STAGE-II	-298.59
222	KARNATAKA	-304.00
223	PUNJAB	-446.94
224	RPREL	-470.38
225	SEMBCORP	-476.54
226	CHHATTISGARH	-510.00
227	BIHAR	-906.25
228	WEST BENGAL	-1043.01
229	UTTAR PRADESH	-1197.77
* 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-25: DETAILS OF CONGESTION IN POWER EXCHANGES, NOVEMBER 2022</b>										
	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)	5083.85	0.00	0.00	288.32	0.00	0.00	1406.91	0.00	0.00
B	Actual Cleared Volume and hence scheduled (MUs)	5083.85	0.00	0.00	288.32	0.00	0.00	1406.84	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	0.07	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%	0.005%	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%	0.07%	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%	100.00%	0.00%	0.00%
* This power would have been scheduled had there been no congestion										
Source: IEX, PXIL, HPX & NLDC										

**Table-26: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY IN INDIA (DAY-WISE) (MUs),  
NOVEMBER 2022**

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	HPX	IEX	PXIL	HPX	IEX	PXIL	HPX		
1-Nov-22	79.96	65.50	164.09	0.00	0.00	9.50	0.00	0.00	51.31	0.00	0.00	65.09	3560.11
2-Nov-22	84.18	66.76	153.34	0.00	0.00	9.55	0.00	0.00	48.91	0.00	0.00	64.87	3591.77
3-Nov-22	83.81	69.05	159.02	0.00	0.00	8.32	0.00	0.00	46.62	0.00	0.00	66.29	3576.86
4-Nov-22	85.19	70.49	166.30	0.00	0.00	10.63	0.00	0.00	46.00	0.00	0.00	66.49	3579.80
5-Nov-22	88.22	71.25	173.71	0.00	0.00	9.19	0.00	0.00	53.11	0.00	0.00	65.74	3575.68
6-Nov-22	86.91	67.59	178.18	0.00	0.00	7.22	0.00	0.00	44.96	0.00	0.00	70.74	3485.35
7-Nov-22	95.94	67.85	183.75	0.00	0.00	9.21	0.00	0.00	58.78	0.00	0.00	72.44	3640.87
8-Nov-22	99.36	67.20	192.41	0.00	0.00	11.41	0.00	0.00	49.22	0.00	0.00	71.93	3700.29
9-Nov-22	98.17	65.62	180.18	0.00	0.00	9.97	0.00	0.00	45.94	0.00	0.00	69.60	3698.03
10-Nov-22	96.36	65.28	176.07	0.00	0.00	10.89	0.00	0.00	43.93	0.00	0.00	67.02	3664.17
11-Nov-22	92.62	65.02	155.30	0.00	0.00	9.41	0.00	0.00	37.22	0.00	0.00	68.37	3613.57
12-Nov-22	89.78	64.69	168.32	0.00	0.00	10.23	0.00	0.00	40.03	0.00	0.00	67.94	3535.33
13-Nov-22	94.25	63.76	153.77	0.00	0.00	8.44	0.00	0.00	50.18	0.00	0.00	65.04	3402.86
14-Nov-22	106.33	67.70	173.37	0.00	0.00	9.31	0.00	0.00	45.05	0.00	0.00	65.36	3565.72
15-Nov-22	106.92	75.72	163.29	0.00	0.00	9.56	0.00	0.00	53.38	0.00	0.00	64.08	3647.64
16-Nov-22	107.72	73.36	180.14	0.00	0.00	10.77	0.00	0.00	57.34	0.00	0.00	63.83	3659.16
17-Nov-22	109.36	73.21	185.49	0.00	0.00	9.57	0.00	0.00	48.32	0.00	0.00	60.86	3650.48
18-Nov-22	105.04	73.03	164.86	0.00	0.00	9.25	0.00	0.00	54.74	0.00	0.00	63.56	3651.42
19-Nov-22	105.44	74.03	168.73	0.00	0.00	8.52	0.00	0.00	40.61	0.00	0.00	62.26	3592.59
20-Nov-22	99.08	75.45	160.84	0.00	0.00	8.10	0.00	0.00	38.37	0.00	0.00	62.04	3451.02
21-Nov-22	102.57	75.74	156.76	0.00	0.00	9.27	0.00	0.00	51.16	0.00	0.00	63.96	3605.81
22-Nov-22	99.51	74.18	170.74	0.00	0.00	9.50	0.00	0.00	38.33	0.00	0.00	62.30	3685.62
23-Nov-22	103.77	73.71	161.14	0.00	0.00	8.91	0.00	0.00	42.40	0.00	0.00	63.74	3670.35
24-Nov-22	101.24	73.68	155.74	0.00	0.00	9.94	0.00	0.00	49.18	0.00	0.00	60.29	3681.02
25-Nov-22	101.95	75.00	158.64	0.00	0.00	10.99	0.00	0.00	48.94	0.00	0.00	62.93	3683.65
26-Nov-22	107.32	74.62	171.36	0.00	0.00	10.23	0.00	0.00	34.85	0.00	0.00	59.19	3702.34
27-Nov-22	105.68	76.69	159.76	0.00	0.00	10.41	0.00	0.00	40.87	0.00	0.00	58.55	3596.86
28-Nov-22	91.95	74.92	180.72	0.00	0.00	10.73	0.00	0.00	50.02	0.00	0.00	62.27	3718.59
29-Nov-22	87.75	75.94	183.51	0.00	0.00	10.05	0.00	0.00	48.08	0.00	0.00	60.92	3684.74
30-Nov-22	88.29	76.35	184.32	0.00	0.00	9.25	0.00	0.00	48.99	0.00	0.00	66.71	3635.14
<b>Total</b>	<b>2904.68</b>	<b>2133.41</b>	<b>5083.85</b>	<b>0.00</b>	<b>0.00</b>	<b>288.32</b>	<b>0.00</b>	<b>0.00</b>	<b>1406.84</b>	<b>0.00</b>	<b>0.00</b>	<b>1944.38</b>	<b>108506.84</b>

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-27(a): PRICE OF DAY AHEAD TRANSACTIONS OF ELECTRICITY (DAY-WISE) (₹/kWh),  
NOVEMBER 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-Nov-22	3.17	8.86	4.25	-	-	-	-	-	-
2-Nov-22	3.32	10.50	4.39	-	-	-	-	-	-
3-Nov-22	3.50	11.50	4.91	-	-	-	-	-	-
4-Nov-22	3.50	12.00	5.05	-	-	-	-	-	-
5-Nov-22	3.72	12.00	5.36	-	-	-	-	-	-
6-Nov-22	3.50	8.86	4.48	-	-	-	-	-	-
7-Nov-22	3.79	12.00	5.29	-	-	-	-	-	-
8-Nov-22	3.50	12.00	4.76	-	-	-	-	-	-
9-Nov-22	3.62	12.00	4.88	-	-	-	-	-	-
10-Nov-22	3.41	11.00	4.85	-	-	-	-	-	-
11-Nov-22	3.17	12.00	4.47	-	-	-	-	-	-
12-Nov-22	3.22	8.25	4.51	-	-	-	-	-	-
13-Nov-22	2.96	5.50	3.92	-	-	-	-	-	-
14-Nov-22	2.96	8.86	4.69	-	-	-	-	-	-
15-Nov-22	3.00	9.00	4.49	-	-	-	-	-	-
16-Nov-22	2.94	9.00	4.78	-	-	-	-	-	-
17-Nov-22	3.00	9.00	4.94	-	-	-	-	-	-
18-Nov-22	2.98	9.50	5.08	-	-	-	-	-	-
19-Nov-22	3.00	9.50	5.06	-	-	-	-	-	-
20-Nov-22	2.94	5.80	4.09	-	-	-	-	-	-
21-Nov-22	2.86	9.50	5.02	-	-	-	-	-	-
22-Nov-22	2.85	9.50	5.15	-	-	-	-	-	-
23-Nov-22	2.72	11.11	5.02	-	-	-	-	-	-
24-Nov-22	2.81	12.00	5.24	-	-	-	-	-	-
25-Nov-22	2.72	12.00	5.29	-	-	-	-	-	-
26-Nov-22	2.85	12.00	5.26	-	-	-	-	-	-
27-Nov-22	2.85	6.00	4.12	-	-	-	-	-	-
28-Nov-22	2.71	9.80	4.63	-	-	-	-	-	-
29-Nov-22	2.81	8.87	4.70	-	-	-	-	-	-
30-Nov-22	2.81	10.00	5.00	-	-	-	-	-	-
	<b>2.71#</b>	<b>12.00#</b>	<b>4.80</b>	-	-	-	-	-	-

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-27(b): PRICE OF GREEN DAY AHEAD TRANSACTIONS OF ELECTRICITY (DAY-WISE) (₹/kWh),  
NOVEMBER 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-Nov-22	3.60	12.00	4.70	-	-	-	-	-	-
2-Nov-22	3.50	11.88	4.77	-	-	-	-	-	-
3-Nov-22	3.34	12.00	4.68	-	-	-	-	-	-
4-Nov-22	3.81	12.00	5.04	-	-	-	-	-	-
5-Nov-22	3.50	8.50	4.49	-	-	-	-	-	-
6-Nov-22	2.71	10.00	4.49	-	-	-	-	-	-
7-Nov-22	4.10	12.00	6.08	-	-	-	-	-	-
8-Nov-22	3.90	12.00	5.09	-	-	-	-	-	-
9-Nov-22	3.60	12.00	5.40	-	-	-	-	-	-
10-Nov-22	3.60	12.00	5.71	-	-	-	-	-	-
11-Nov-22	3.50	6.10	4.75	-	-	-	-	-	-
12-Nov-22	3.71	11.50	4.87	-	-	-	-	-	-
13-Nov-22	3.40	6.00	4.08	-	-	-	-	-	-
14-Nov-22	3.34	6.50	4.87	-	-	-	-	-	-
15-Nov-22	3.60	11.50	5.25	-	-	-	-	-	-
16-Nov-22	3.76	7.00	4.58	-	-	-	-	-	-
17-Nov-22	4.10	8.50	4.90	-	-	-	-	-	-
18-Nov-22	3.90	10.00	5.22	-	-	-	-	-	-
19-Nov-22	3.90	8.00	4.78	-	-	-	-	-	-
20-Nov-22	3.60	5.00	4.19	-	-	-	-	-	-
21-Nov-22	3.60	11.00	5.56	-	-	-	-	-	-
22-Nov-22	3.90	6.00	4.65	-	-	-	-	-	-
23-Nov-22	3.90	9.00	5.87	-	-	-	-	-	-
24-Nov-22	3.10	6.71	4.83	-	-	-	-	-	-
25-Nov-22	3.05	10.50	5.20	-	-	-	-	-	-
26-Nov-22	3.05	7.50	4.73	-	-	-	-	-	-
27-Nov-22	3.24	8.00	4.23	-	-	-	-	-	-
28-Nov-22	3.15	7.00	4.90	-	-	-	-	-	-
29-Nov-22	3.21	7.00	4.49	-	-	-	-	-	-
30-Nov-22	3.05	8.00	4.67	-	-	-	-	-	-
	<b>2.71<sup>#</sup></b>	<b>12.00<sup>#</sup></b>	<b>4.91</b>	-	-	-	-	-	-

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-27(c): PRICE OF REAL TIME TRANSACTIONS AND DSM (DAY-WISE) (₹/kWh), NOVEMBER 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-Nov-22	2.75	10.00	4.88	-	-	-	-	-	-	-	0.00	8.00	4.34
2-Nov-22	2.94	12.00	5.36	-	-	-	-	-	-	-	0.85	8.00	4.48
3-Nov-22	2.48	12.00	4.94	-	-	-	-	-	-	-	0.00	8.00	4.37
4-Nov-22	2.85	12.00	5.52	-	-	-	-	-	-	-	0.00	7.80	4.30
5-Nov-22	3.43	12.00	5.81	-	-	-	-	-	-	-	0.00	8.00	5.38
6-Nov-22	2.84	6.07	4.33	-	-	-	-	-	-	-	0.00	8.00	4.16
7-Nov-22	3.32	12.00	5.63	-	-	-	-	-	-	-	0.00	8.00	4.90
8-Nov-22	3.45	11.41	5.41	-	-	-	-	-	-	-	0.00	8.00	4.59
9-Nov-22	3.35	7.45	4.85	-	-	-	-	-	-	-	0.00	7.79	4.38
10-Nov-22	2.93	6.00	4.31	-	-	-	-	-	-	-	0.00	7.38	3.94
11-Nov-22	2.00	6.45	4.38	-	-	-	-	-	-	-	0.00	7.77	3.48
12-Nov-22	3.00	5.80	4.28	-	-	-	-	-	-	-	0.00	6.43	3.43
13-Nov-22	2.80	5.27	4.21	-	-	-	-	-	-	-	0.00	4.89	2.87
14-Nov-22	2.15	9.01	4.91	-	-	-	-	-	-	-	0.00	8.00	4.05
15-Nov-22	3.17	8.50	5.36	-	-	-	-	-	-	-	0.00	8.00	4.27
16-Nov-22	3.33	12.00	5.77	-	-	-	-	-	-	-	0.00	8.00	3.89
17-Nov-22	2.81	10.49	5.18	-	-	-	-	-	-	-	0.00	8.00	3.89
18-Nov-22	3.00	7.57	4.92	-	-	-	-	-	-	-	0.00	7.80	4.33
19-Nov-22	3.15	6.17	4.48	-	-	-	-	-	-	-	0.00	7.61	4.18
20-Nov-22	2.50	6.00	4.29	-	-	-	-	-	-	-	0.00	7.50	2.80
21-Nov-22	2.20	11.79	4.97	-	-	-	-	-	-	-	0.00	7.80	4.57
22-Nov-22	2.90	7.69	4.81	-	-	-	-	-	-	-	0.00	7.81	5.18
23-Nov-22	2.81	8.00	5.00	-	-	-	-	-	-	-	0.00	8.00	4.49
24-Nov-22	2.81	12.00	5.30	-	-	-	-	-	-	-	0.00	7.61	4.97
25-Nov-22	2.90	7.10	4.75	-	-	-	-	-	-	-	0.00	7.43	4.14
26-Nov-22	2.93	8.22	4.55	-	-	-	-	-	-	-	0.00	7.05	4.16
27-Nov-22	2.94	5.51	4.15	-	-	-	-	-	-	-	0.00	7.50	3.98
28-Nov-22	2.85	12.00	5.20	-	-	-	-	-	-	-	0.00	8.00	4.70
29-Nov-22	2.53	12.00	5.75	-	-	-	-	-	-	-	0.00	8.00	4.74
30-Nov-22	2.57	12.00	5.04	-	-	-	-	-	-	-	0.00	8.00	4.43
	<b>2.00#</b>	<b>12.00#</b>	<b>4.99</b>	-	-	-	-	-	-	-	<b>0.00#</b>	<b>8.00#</b>	<b>4.25</b>

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.

\*\* 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-28: VOLUME OF SHORT-TERM TRANSACTIONS OF ELECTRICITY (REGIONAL ENTITY\*-WISE) (MUs), NOVEMBER 2022**

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	601.40	33.91	-567.49	6.52	157.01	150.49	19.41	49.35	-29.94	-446.94
HARYANA	18.79	272.42	253.63	61.69	63.86	2.18	69.43	32.01	37.42	293.22
RAJASTHAN	48.87	562.39	513.52	28.83	955.13	926.29	99.57	42.58	56.99	1496.81
DELHI	316.16	167.02	-149.15	54.78	148.12	93.34	7.57	32.30	-24.74	-80.54
UTTAR PRADESH	317.85	93.23	-224.61	1257.34	290.74	-966.60	72.05	78.61	-6.56	-1197.77
UTTARAKHAND	10.14	61.77	51.63	0.48	300.44	299.97	18.68	15.91	2.77	354.37
HIMACHAL PRADESH	41.47	353.96	312.49	125.72	6.00	-119.72	17.17	10.19	6.99	199.76
J & K	70.01	0.00	-70.01	29.94	713.35	683.41	36.25	25.47	10.78	624.18
CHANDIGARH	0.00	0.00	0.00	15.92	3.41	-12.51	4.01	4.76	-0.74	-13.25
MP	28.23	826.90	798.67	140.28	100.38	-39.90	32.49	105.99	-73.51	685.27
MAHARASHTRA	47.10	805.25	758.15	65.28	448.42	383.14	80.00	59.06	20.94	1162.23
GUJARAT	188.54	547.28	358.74	16.89	1634.42	1617.54	63.31	63.05	0.26	1976.54
CHHATTISGARH	2.52	45.72	43.20	552.70	1.09	-551.61	18.11	19.70	-1.60	-510.00
GOA	3.03	41.92	38.88	30.87	16.26	-14.61	9.10	3.70	5.40	29.67
DD&DNH	0.00	93.86	93.86	2.51	148.77	146.26	6.31	2.98	3.32	243.44
ANDHRA P	6.58	275.53	268.95	45.01	578.36	533.34	46.66	30.60	16.06	818.35
KARNATAKA	160.76	16.14	-144.62	245.43	84.24	-161.19	57.34	55.53	1.81	-304.00
KERALA	0.70	0.73	0.04	10.20	55.24	45.04	25.81	11.28	14.53	59.60
TAMIL NADU	5.93	0.00	-5.93	21.71	316.45	294.74	53.19	49.06	4.13	292.95
PONDICHERRY	0.00	19.24	19.24	0.00	0.00	0.00	3.24	9.58	-6.35	12.89
TELANGANA	218.10	144.78	-73.32	238.51	195.98	-42.53	35.32	49.63	-14.31	-130.16
WEST BENGAL	95.40	64.52	-30.88	1115.97	103.42	-1012.55	26.90	26.49	0.42	-1043.01
ODISHA	94.30	92.82	-1.48	189.34	61.26	-128.07	27.23	34.40	-7.17	-136.72
BIHAR	180.00	55.22	-124.78	770.72	1.63	-769.09	18.74	31.13	-12.39	-906.25
JHARKHAND	0.00	0.00	0.00	0.00	9.74	9.74	10.96	34.85	-23.89	-14.15
SIKKIM	9.26	27.63	18.37	9.98	1.22	-8.76	2.19	6.83	-4.64	4.97
DVC	117.88	10.50	-107.38	22.60	26.58	3.98	24.50	22.84	1.66	-101.74
ARUNACHAL P	24.01	0.00	-24.01	2.77	0.01	-2.76	6.42	2.79	3.63	-23.13
ASSAM	0.00	0.65	0.65	52.25	75.75	23.50	13.04	5.74	7.30	31.45
MANIPUR	0.00	21.39	21.39	7.33	1.61	-5.73	2.19	1.91	0.28	15.94
MEGHALAYA	2.08	51.84	49.76	7.72	16.36	8.64	5.12	2.58	2.54	60.94
MIZORAM	0.00	0.00	0.00	5.65	0.00	-5.65	0.30	3.94	-3.64	-9.29
NAGALAND	2.10	0.00	-2.10	6.47	0.09	-6.38	1.68	1.20	0.48	-8.00
TRIPURA	0.00	0.00	0.00	35.15	2.52	-32.62	2.60	6.06	-3.46	-36.09
NTPC STATIONS-NR	0.00	0.00	0.00	0.00	0.00	0.00	107.15	30.16	76.99	76.99
NHPC STATIONS	0.00	0.00	0.00	0.00	0.00	0.00	13.43	84.83	-71.40	-71.40
NFF	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.19	-0.09	-0.09
RAIL	0.00	9.69	9.69	0.00	0.00	0.00	5.36	2.34	3.02	12.71
NEP	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.13	0.13
NAPP	0.00	0.00	0.00	0.00	0.00	0.00	1.57	1.62	-0.05	-0.05
RAP B	0.00	0.00	0.00	0.00	0.00	0.00	1.02	0.51	0.51	0.51
NJPC	0.00	0.00	0.00	0.00	0.00	0.00	2.38	7.23	-4.85	-4.85
TEHRI	0.00	0.00	0.00	0.00	0.00	0.00	1.59	4.81	-3.22	-3.22
BBMB	0.00	0.00	0.00	0.00	0.00	0.00	3.71	15.76	-12.05	-12.05
RAP C	0.00	0.00	0.00	0.00	0.00	0.00	1.88	1.16	0.72	0.72
AD HYDRO	17.45	0.00	-17.45	6.58	0.00	-6.58	0.20	0.91	-0.71	-24.74
IGSTPS	0.00	0.00	0.00	0.00	0.00	0.00	7.41	3.87	3.53	3.53
KOTESHWAR	0.00	0.00	0.00	0.00	0.00	0.00	0.41	2.89	-2.48	-2.48
KARCHAM WANGTOO	14.52	0.00	-14.52	8.04	0.00	-8.04	2.05	3.47	-1.41	-23.97
SHREE CEMENT	0.00	0.00	0.00	0.00	0.00	0.00	0.64	0.03	0.61	0.61
LANCO BUDHIL	0.00	0.00	0.00	1.20	0.00	-1.20	0.13	0.42	-0.29	-1.48
RAMPUR HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.34	4.45	-4.11	-4.11
SORANG HEP	14.68	0.00	-14.68	0.45	0.00	-0.45	2.57	2.32	0.25	-14.89
SAINJ HEP	7.41	0.00	-7.41	12.05	0.47	-11.58	0.65	0.76	-0.11	-19.10
RENEW_SLR	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.47	-0.01	-0.01
AZURE_SLR	0.00	0.00	0.00	0.00	0.00	0.00	1.89	1.33	0.56	0.56

SB_SLR	11.31	0.00	-11.31	1.73	0.00	-1.73	1.35	1.92	-0.57	-13.61
ACME_SLR	0.00	0.00	0.00	0.00	0.00	0.00	3.17	2.93	0.24	0.24
AZURE34_SLR	0.00	0.00	0.00	0.00	0.00	0.00	1.03	1.52	-0.49	-0.49
TATA_SLR	29.94	0.00	-29.94	0.00	0.00	0.00	5.27	0.81	4.46	-25.48
RENEW_SLR_BKN	0.00	0.00	0.00	0.00	0.00	0.00	2.53	2.24	0.29	0.29
CLEAN_SLR	0.00	0.00	0.00	0.00	0.00	0.00	1.26	7.35	-6.08	-6.08
ARERJL_SLR	0.00	0.00	0.00	0.00	0.00	0.00	2.29	0.95	1.34	1.34
KSMPL_SLR	0.00	0.00	0.00	0.00	0.00	0.00	0.76	0.11	0.65	0.65
ADANI GREEN	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.54	0.08	0.08
ASEJTL_SLR	0.00	0.00	0.00	9.73	0.00	-9.73	3.34	3.78	-0.43	-10.17
SINGOLI BHATWARI HE	25.20	0.00	-25.20	1.66	0.00	-1.66	0.19	0.54	-0.35	-27.21
AZURE43_SLR	0.00	0.00	0.00	0.00	0.00	0.00	3.44	6.39	-2.95	-2.95
MRPL	0.00	0.00	0.00	0.00	0.00	0.00	1.36	1.56	-0.20	-0.20
SB6_POKARAN	0.00	0.00	0.00	0.00	0.00	0.00	3.16	1.71	1.45	1.45
EDEN_SLR	0.00	0.00	0.00	0.00	0.00	0.00	1.30	2.37	-1.07	-1.07
SBSR_SLR	0.00	0.00	0.00	0.00	0.00	0.00	3.08	2.00	1.08	1.08
RENEWSW_SLR	0.00	0.00	0.00	0.00	0.00	0.00	1.11	1.55	-0.44	-0.44
ADANIHB_SLR	5.50	0.00	-5.50	0.00	0.00	0.00	0.00	0.00	0.00	-5.50
RENEWJH_SLR	0.00	0.00	0.00	0.00	0.00	0.00	1.24	1.60	-0.36	-0.36
ADANIHB_WIND	1.24	0.00	-1.24	0.00	0.00	0.00	0.00	0.00	0.00	-1.24
ADANI_SLR	0.00	0.00	0.00	39.42	0.00	-39.42	0.00	0.00	0.00	-39.42
AHEJ4L_WIND	57.83	0.00	-57.83	0.00	0.00	0.00	0.00	0.00	0.00	-57.83
AHEJ4L_SOLAR	119.88	0.00	-119.88	0.00	0.00	0.00	0.00	0.00	0.00	-119.88
RENEWSB	0.00	0.00	0.00	0.00	0.00	0.00	1.24	3.04	-1.80	-1.80
AZURE41_SLR	0.00	0.00	0.00	0.00	0.00	0.00	3.31	1.62	1.70	1.70
AYANA_RP1	0.00	0.00	0.00	0.00	0.00	0.00	2.37	2.80	-0.43	-0.43
AVAADASN_SLR	33.91	0.00	-33.91	0.00	0.00	0.00	6.97	5.77	1.20	-32.71
RENEWURJA_SLR	0.00	0.00	0.00	0.00	0.00	0.00	1.74	1.80	-0.06	-0.06
AVADARJHN_SLR	0.00	0.00	0.00	0.00	0.00	0.00	5.73	3.00	2.73	2.73
NCR ALLAHABAD	0.00	0.00	0.00	0.00	35.67	35.67	0.00	0.00	0.00	35.67
RENEW_SR_SLR	24.55	0.00	-24.55	1.14	0.00	-1.14	2.17	1.69	0.48	-25.21
AZURE_MAPLE_SLR	0.00	0.00	0.00	0.00	0.00	0.00	3.38	0.24	3.14	3.14
THAR1_SLR	32.09	0.00	-32.09	0.00	0.00	0.00	2.38	2.07	0.31	-31.77
CLEANSR_SLR	0.00	0.00	0.00	0.00	0.00	0.00	1.52	1.87	-0.34	-0.34
ACME_HEERGARH	42.13	0.00	-42.13	0.00	0.00	0.00	2.08	2.94	-0.86	-42.99
ABC_BHDL2	57.72	0.00	-57.72	0.00	0.00	0.00	3.09	2.12	0.97	-56.74
MSUPL_BHDL2	0.00	0.00	0.00	0.00	0.00	0.00	1.26	1.23	0.03	0.03
KOLYAT_SLR	68.44	0.00	-68.44	0.00	0.00	0.00	0.00	0.00	0.00	-68.44
TATA_GREEN	39.78	0.00	-39.78	0.00	0.00	0.00	5.15	1.30	3.85	-35.93
NTPC STATIONS-WR	0.00	0.00	0.00	11.55	0.00	-11.55	147.24	79.96	67.28	55.73
BHADRAVATHI HVDC	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	-0.02	-0.02
VINDHYACHAL HVDC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	-0.17	-0.17
JINDAL POWER	86.24	0.00	-86.24	62.32	0.26	-62.06	1.49	3.48	-1.99	-150.29
LANKO_AMK	5.04	0.00	-5.04	0.00	0.00	0.00	0.66	4.14	-3.48	-8.52
NSPCL	0.00	0.00	0.00	0.00	0.00	0.00	2.19	0.83	1.36	1.36
ACBIL	1.08	0.00	-1.08	78.14	0.00	-78.14	0.36	4.27	-3.90	-83.13
BALCO	0.00	107.86	107.86	0.00	5.09	5.09	3.81	1.97	1.84	114.79
RGPPL	0.00	0.00	0.00	0.00	0.00	0.00	1.01	0.24	0.77	0.77
CGPL	0.00	0.00	0.00	6.82	0.00	-6.82	15.00	1.55	13.44	6.62
DCPP	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.02
EMCO	0.00	0.00	0.00	5.65	0.00	-5.65	0.58	2.80	-2.23	-7.88
KSK MAHANADI	0.00	0.00	0.00	0.00	0.00	0.00	2.94	1.74	1.200	1.200
ESSAR POWER	96.21	0.00	-96.21	78.27	0.00	-78.27	9.26	0.64	8.63	-165.86
JINDAL STAGE-II	179.09	0.00	-179.09	119.64	0.00	-119.64	2.64	2.49	0.15	-298.59
DB POWER	14.40	0.00	-14.40	89.99	0.00	-89.99	3.11	2.67	0.45	-103.94
DHARIWAL POWER	0.00	0.00	0.00	0.10	0.00	-0.10	0.73	0.29	0.44	0.34
JAYPEE NIGRIE	17.89	0.00	-17.89	43.86	0.00	-43.86	0.89	4.12	-3.23	-64.98
DGEN MEGA POWER	0.00	0.00	0.00	0.00	0.00	0.00	0.98	0.00	0.98	0.98
MB POWER	112.11	0.00	-112.11	24.47	0.00	-24.47	5.09	7.82	-2.73	-139.31
MARUTI COAL	0.00	0.00	0.00	23.92	0.00	-23.92	0.00	0.00	0.00	-23.92
JHABUA POWER_MP	0.00	0.00	0.00	0.15	0.00	-0.15	2.53	1.11	1.42	1.27
SASAN UMPP	0.00	0.00	0.00	0.00	0.00	0.00	3.46	40.38	-36.92	-36.92
TRN ENERGY	7.20	0.00	-7.20	5.74	0.00	-5.74	0.41	1.90	-1.49	-14.42

RKM POWER	45.53	0.00	-45.53	52.39	0.00	-52.39	4.40	6.13	-1.74	-99.65
SKS POWER	135.95	0.00	-135.95	6.77	0.00	-6.77	2.26	0.44	1.82	-140.90
BARC	0.00	0.00	0.00	0.00	0.00	0.00	0.01	2.97	-2.96	-2.96
KAPP 3&4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	213.38	-213.38	-213.38
HVDC CHAMPA	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.19	-0.17	-0.17
MAHINDRA_RUMS	0.00	0.00	0.00	0.00	0.00	0.00	0.80	3.27	-2.47	-2.47
ARINSUM_RUMS	0.00	0.00	0.00	0.00	0.00	0.00	1.78	2.52	-0.74	-0.74
OSTRO	0.00	0.00	0.00	7.77	0.00	-7.77	10.01	4.33	5.68	-2.10
ACME_RUMS	0.00	0.00	0.00	0.00	0.00	0.00	0.82	4.01	-3.20	-3.20
RENEW_BHACHAU	0.00	0.00	0.00	0.00	0.00	0.00	9.79	2.69	7.10	7.10
GIWEL_BHUJ	0.00	0.00	0.00	0.00	0.00	0.00	14.36	5.87	8.49	8.49
INOX_BHUJ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AGEMPL BHUJ	0.00	0.00	0.00	0.00	0.00	0.00	17.15	4.12	13.02	13.02
REGL	5.78	0.00	-5.78	0.79	0.00	-0.79	0.00	0.00	0.00	-6.56
RPREL	390.09	0.00	-390.09	98.76	0.00	-98.76	19.10	0.63	18.46	-470.38
AMPS Hazira	0.00	93.90	93.90	0.00	219.63	219.63	21.98	17.28	4.70	318.23
HVDC RAIGARH	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.35	-0.33	-0.33
ALFANAR_BHUJ	0.00	0.00	0.00	0.00	0.00	0.00	7.02	2.79	4.23	4.23
RENEW_BHUJ	0.00	0.00	0.00	0.00	0.00	0.00	10.38	4.85	5.53	5.53
ADANI_WIND	0.86	0.00	-0.86	5.91	0.00	-5.91	0.00	0.00	0.00	-6.77
TPREL_RADHANESDA	0.00	0.00	0.00	0.00	0.00	0.00	0.48	1.20	-0.72	-0.72
ESPL_RADHANESDA	0.00	0.00	0.00	0.00	0.00	0.00	0.96	1.05	-0.08	-0.08
GIPCL_RADHANESDA	0.00	0.00	0.00	0.00	0.00	0.00	0.43	1.30	-0.87	-0.87
GSECL_Radhanesda	0.00	0.00	0.00	0.00	0.00	0.00	0.36	1.07	-0.70	-0.70
AVIKIRAN	0.00	0.00	0.00	0.00	0.00	0.00	1.08	0.80	0.28	0.28
SESPL	0.00	0.00	0.00	0.00	0.00	0.00	2.54	0.57	1.98	1.98
POWERICA	0.00	0.00	0.00	0.00	0.00	0.00	1.60	0.60	1.00	1.00
SKRPL	0.00	0.00	0.00	0.00	0.00	0.00	6.27	2.28	3.98	3.98
SBESS	0.00	0.00	0.00	0.00	0.00	0.00	4.36	6.70	-2.34	-2.34
NTPC STATIONS-SR	8.73	0.00	-8.73	28.33	0.00	-28.33	53.30	19.81	33.49	-3.58
LANKO KONDAPALLI	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.47	0.47
SIMHAPURI	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.53	0.53
MEENAKSHI	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.00	0.51	0.51
COASTGEN	0.00	0.00	0.00	0.00	0.00	0.00	4.91	1.09	3.82	3.82
THERMAL POWERTECH	0.00	0.00	0.00	0.00	0.00	0.00	21.22	1.16	20.06	20.06
IL&FS	0.00	0.00	0.00	0.26	0.00	-0.26	9.06	0.11	8.95	8.69
NLC	0.00	0.00	0.00	5.63	0.00	-5.63	26.68	12.28	14.40	8.77
SEMBCORP	213.57	0.00	-213.57	285.28	0.00	-285.28	24.64	2.32	22.32	-476.54
NETCL VALLUR	0.00	0.00	0.00	0.00	0.00	0.00	33.36	1.49	31.88	31.88
NTPL	0.00	0.00	0.00	0.00	0.00	0.00	8.51	0.42	8.09	8.09
AHSP_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	1.14	0.74	0.39	0.39
AKSP_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	1.15	0.76	0.39	0.39
ABSP_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	1.12	0.76	0.37	0.37
AZURE_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0.81	-0.13	-0.13
TATA_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	2.29	1.07	1.22	1.22
FRV_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.77	0.00	0.00
NTPC_ANTP	0.00	0.00	0.00	0.00	0.00	0.00	4.90	3.08	1.82	1.82
GIWEL_TCN	0.00	0.00	0.00	0.00	0.00	0.00	7.28	3.82	3.47	3.47
MYTRAH_TCN	0.00	0.00	0.00	0.00	0.00	0.00	1.59	3.87	-2.28	-2.28
FRV_NPK	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.90	-0.15	-0.15
ORANGE_TCN	0.00	0.00	0.00	0.00	0.00	0.00	7.49	2.59	4.90	4.90
BETAM_TCN	0.00	0.00	0.00	0.00	0.00	0.00	4.15	2.97	1.19	1.19
SBG_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	3.58	3.12	0.46	0.46
SBG_NPK	0.00	0.00	0.00	0.00	0.00	0.00	3.34	4.38	-1.04	-1.04
FORTUM1_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	1.85	1.41	0.43	0.43
PARAM_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.68	0.54	0.14	0.14
YARROW_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.18	0.09	0.09
TATA_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	1.62	1.47	0.15	0.15
RENEW_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.14	0.16	0.16
AKS_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.17	0.09	0.09
ARS_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.22	0.04	0.04
AVAADA1_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.64	-0.03	-0.03
ADY1_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	1.53	1.15	0.37	0.37

ADY2_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	1.53	1.15	0.37	0.37
ADY13_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	1.53	1.15	0.37	0.37
ADY3_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	1.43	1.15	0.28	0.28
ADY6_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	1.43	1.15	0.28	0.28
ADY10_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	1.53	1.15	0.37	0.37
AZURE_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.54	-0.09	-0.09
FORTUM2_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.79	1.26	-0.47	-0.47
AVAADA2_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.73	-0.16	-0.16
KREDL_PVGD	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.07	0.52	0.52
AYANA_NPKUNTA	0.00	0.00	0.00	0.00	0.00	0.00	1.11	0.92	0.19	0.19
SPRNG_NPKUNTA	0.00	0.00	0.00	0.00	0.00	0.00	1.58	1.00	0.57	0.57
SPRING_PUGALUR	0.00	0.00	0.00	0.00	0.00	0.00	1.02	0.48	0.54	0.54
OSTRO Hiriyur	0.00	0.00	0.00	0.00	0.00	0.00	2.32	0.80	1.52	1.52
RSTPS_FSPP	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.13	0.18	0.18
GRT_JPL	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.62	0.04	0.04
NTPC STATIONS-ER	0.00	0.00	0.00	13.96	0.00	-13.96	118.25	22.28	95.97	82.01
MAITHON POWER LTD	0.00	0.00	0.00	0.00	0.00	0.00	1.54	4.83	-3.29	-3.29
NPGC	0.00	0.00	0.00	0.00	0.00	0.00	12.96	1.97	10.99	10.99
ADHUNIK POWER LTD	64.70	0.00	-64.70	1.49	0.00	-1.49	5.21	0.40	4.81	-61.39
CHUZACHEN HEP	0.00	0.00	0.00	2.47	0.00	-2.47	0.82	1.03	-0.21	-2.68
RANGIT HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.90	-0.45	-0.45
GMR KAMALANGA	1.65	0.00	-1.65	9.80	0.00	-9.80	4.66	0.53	4.13	-7.32
JITPL	132.08	0.00	-132.08	90.73	0.00	-90.73	6.01	3.26	2.75	-220.06
TEESTA HEP	0.00	0.00	0.00	83.79	0.00	-83.79	0.03	4.11	-4.08	-87.86
DAGACHU	41.40	0.00	-41.40	0.00	0.00	0.00	12.05	0.00	12.05	-29.35
JORETHANG	17.66	0.00	-17.66	0.75	0.00	-0.75	0.84	3.81	-2.96	-21.38
NEPAL(NVVN)	0.00	0.00	0.00	176.39	0.00	-176.39	4.22	16.77	-12.55	-188.94
BANGLADESH	0.00	140.01	140.01	0.00	0.00	0.00	3.58	1.09	2.49	142.50
HVDC PUS	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.01	0.06	0.06
TEESTA STG3	157.42	0.00	-157.42	0.00	0.00	0.00	1.79	1.76	0.03	-157.39
DIKCHU HEP	16.24	0.00	-16.24	3.36	0.00	-3.36	0.46	0.74	-0.28	-19.88
HVDC ALPD	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.09	0.01	0.01
TASHIDENG HEP	11.39	0.00	-11.39	0.38	0.00	-0.38	0.46	6.36	-5.90	-17.68
BRBCL,NABINAGAR	0.00	0.00	0.00	0.00	0.00	0.00	9.04	2.54	6.50	6.50
MTPS II	0.00	0.00	0.00	0.00	0.00	0.00	1.12	2.81	-1.69	-1.69
TALA HEP	0.00	0.00	0.00	0.00	0.00	0.00	33.66	3.85	29.80	29.80
CHUKHA HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.07	65.93	-65.87	-65.87
KURICHU HEP	0.00	0.00	0.00	0.00	0.00	0.00	1.75	5.34	-3.58	-3.58
MANGDECHU HEP	0.00	0.00	0.00	0.00	0.00	0.00	20.08	3.63	16.45	16.45
RONGNICHU HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.56	4.30	-3.74	-3.74
NTPC STATIONS-NER	0.00	0.00	0.00	2.55	0.00	-2.55	4.74	2.79	1.94	-0.60
NEEPCO STATIONS	53.77	0.00	-53.77	74.84	0.00	-74.84	3.02	19.02	-16.00	-144.61
RANGANADI HEP	0.00	0.00	0.00	0.00	0.00	0.00	1.13	1.34	-0.21	-0.21
DOYANG HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.35	-0.24	-0.24
ONGC PALATANA	7.20	0.00	-7.20	17.43	0.00	-17.43	0.24	1.01	-0.77	-25.40
LOKTAK	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.97	-0.71	-0.71
PARE HEP	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.93	-0.70	-0.70

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-29: VOLUME AND PRICE OF RENEWABLE ENERGY CERTIFICATES (RECs)  
TRANSACTIONED THROUGH POWER EXCHANGES, NOVEMBER 2022**

Sr. No.	Details of REC Transactions	IEX		PXIL		HPX	
		Solar	Non-Solar	Solar	Non-Solar	Solar	Non-Solar
A	Volume of Buy Bid	303704	67835	129037	14144	1036	1093
B	Volume of Sell Bid	4589533	5767799	2139343	2597769	7462	7771
C	Ratio of Buy Bid to Sell Bid Volume	0.07	0.01	0.06	0.01	0.14	0.14
D	Market Clearing Volume (MWh)	303704	67835	129037	14144	1036	1093
E	Weighted average Market Clearing Price (₹/MWh)	1000	1000	1000	1000	1000	1000

Source: IEX, PXIL and HPX

Note: 1 REC = 1 MWh

**Table-30: VOLUME AND PRICE OF CROSS BORDER TRADE THROUGH DAY AHEAD  
MARKET AT IEX, NOVEMBER 2022**

Sr. No.	Neighbouring Country	Volume (MU)			Weighted Average Price (₹/kWh)	
		Sale	Purchase	Net*	Sale	Purchase
1	Nepal	176.39	0.00	-176.39	4.66	-
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