



Dated: July 26, 2024

The Manager  
BSE Limited  
Corporate Relationship Department  
Phiroze Jeejeebhoy Towers  
Dalal Street  
Mumbai- 400001  
Scrip Code: 540750

The Manager  
National Stock Exchange of India Ltd  
Listing Department  
Exchange Plaza, 5<sup>th</sup> Floor, Plot No. C/1  
G Block, Bandra Kurla Complex  
Bandra (E), Mumbai-400 051  
Symbol: IEX

**Sub: Investor Presentation “IEX Analyst Meet 2024”**

Dear Sir / Madam,

With reference to above mentioned subject, please find attached the Investor Presentation made during the IEX Analyst Meet 2024, held today i.e. July 26, 2024.

The above information will also be made available on the website of the Company:  
[www.iexindia.com](http://www.iexindia.com)

You are requested to take the above information on record.

Thanking You.

Yours faithfully,

For Indian Energy Exchange Limited

Vineet Harlalka  
CFO, Company Secretary & Compliance Officer  
Membership No. ACS-16264

Encl: as above

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**Indian Energy Exchange Ltd**

Registered Office: C/o Avanta Business Centre, First Floor, Unit No. 1.14(a), D2, Southern Park, District Centre, Saket, New Delhi-110017, India

Corporate Office: 9th Floor, Max Towers, Sector 16B, Noida, Uttar Pradesh-201301, India

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CIN: L74999DL2007PLC277039 | Website: [www.iexindia.com](http://www.iexindia.com)



# IEX Analyst Meet

Trident BKC, Mumbai

26<sup>th</sup> July 2024

# In this presentation:

## Sector and Business Update

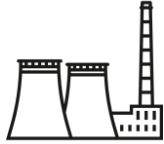
Customer Centricity and Technology

Financial Performance

Human Resources

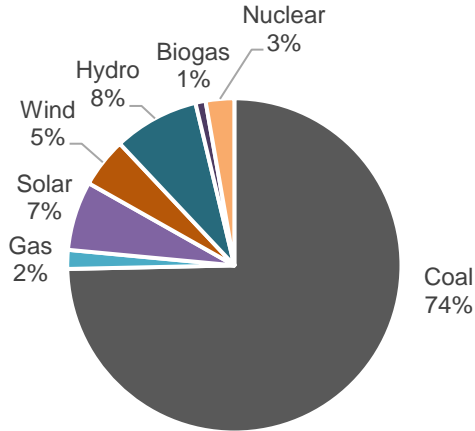
Indian Gas Exchange

# Power Sector Summary



## Generation Mix

### Indian Generation Mix - FY'24



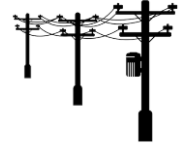
- Thermal generates 76% of India's electricity
- Renewables contribute 21% to generation



## Transmission

### World's Largest Network

- Inter-reg. trans. Cap.: 116.5 GW (Mar'24)
- 4.81 Lakh CKM of trans. Lines (Mar'24)
- One Nation One Grid
- Green Corridor: RE rich states; projects for evacuation of RE into National grid
- 99.9% times no congestion

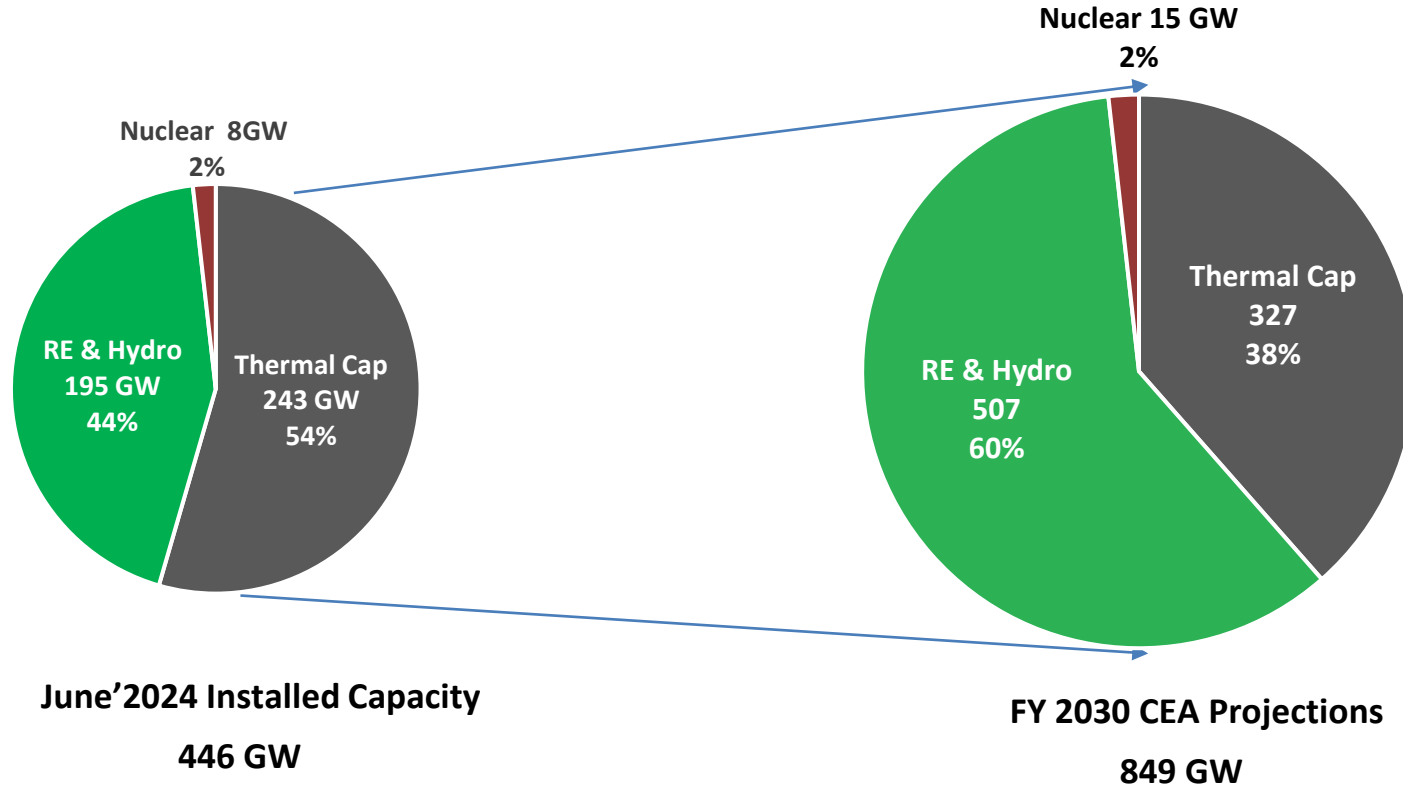


## Distribution & Consumption

### Reforms Underway

- Declining Avg. AT & C Losses:
  - FY'21 – 22.3%
  - FY'22 – 16.4%
  - FY'23 – 15.4%
- Improving credit ratings of distribution companies
- Generators being paid on timely basis
- DISCOMS resorting to power procurement optimization

# Energy Sector Transition



\*RE also includes BESS

Source: CEA

Government aims to increase share of non-fossil fuel in India's electricity generation capacity to 50% by 2030.

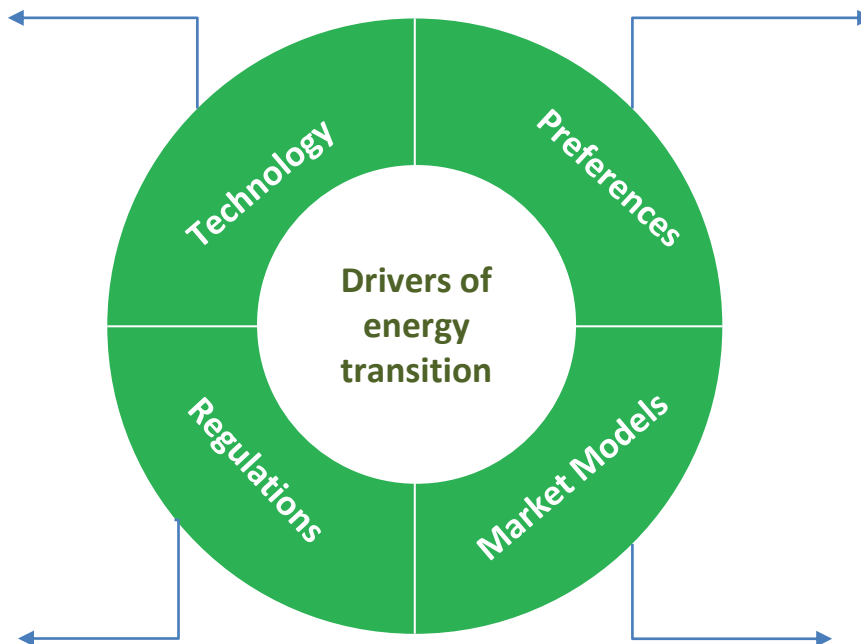
# Renewables Are Leading Energy Sector Transition

## Technology Progress

- Low Carbon Technologies – Wind, Solar, Hybrid
- Falling RE cost driving higher penetration
- Falling battery cost helping RE integration
- Advanced Analytics

## Regulatory Framework

- Renewable Purchase Obligations (RPO)
- Energy Efficiency Regulations
- Green Energy Open Access
- Carbon Credit Trading Scheme (CCTS)



## Changing Preferences

- Shift Towards RE and storage
- Electrification of economy – EVs, roof top solar, cooking, railway traction, data centres
- Distributed Generation

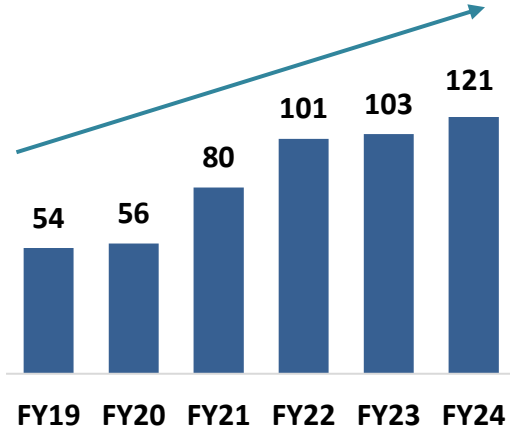
## New Market Models

- Energy as a service
- RE penetration driving new market design – CfDs, VPPA, BESS (Price Arbitrage)
- Generation moving closer to consumer (Prosumer), P2P Trading

# Power Exchanges Emerge as the Most Preferred Option

## Exchanges (BU)

CAGR: 17.5%

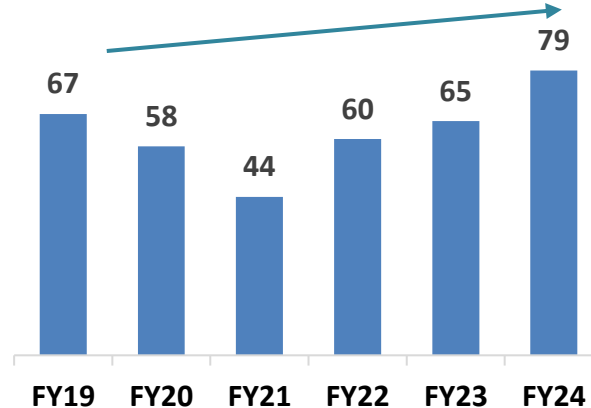


Share in  
Generation

7%

## Bilateral (BU)

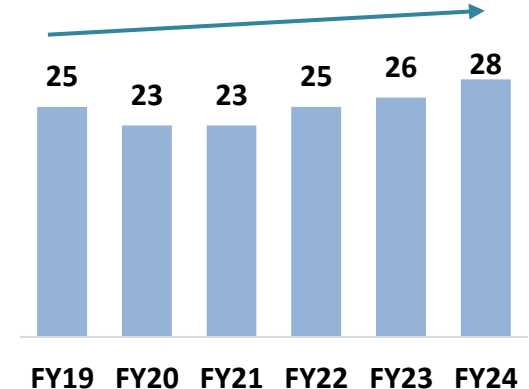
CAGR: 3.3%



4%

## DSM (BU)

CAGR: 2.3%



2%

- Nation wide, automated and transparent trading platform for physical delivery of electricity, renewables & certificates
- Commenced operations in 2008; CERC regulated
- Publicly listed company – 2017 (NSE and BSE)
- ISO 9001:2015, ISO 27001:2022, ISO 14001:2015
- State Advisory Committee Member of 13 SERCs
- Member holding Board seat in Association of Power Exchanges (APEX)
- Total Volume: FY'24: 110.1 BU, Q1FY25: 30.4 BU; Q1YoY:+21%
- IEX Market Share: FY'24: 83%, YTD FY'25: 80%

## Robust Ecosystem

**7,900+**

Registered participants

**4,900+**

Commercial & Industries

**2,100+**

RE Generators & Obligated Entities

**800+**

Generators

**65+**

Discoms (All)

**200+**

ESCert Entities

**20+**

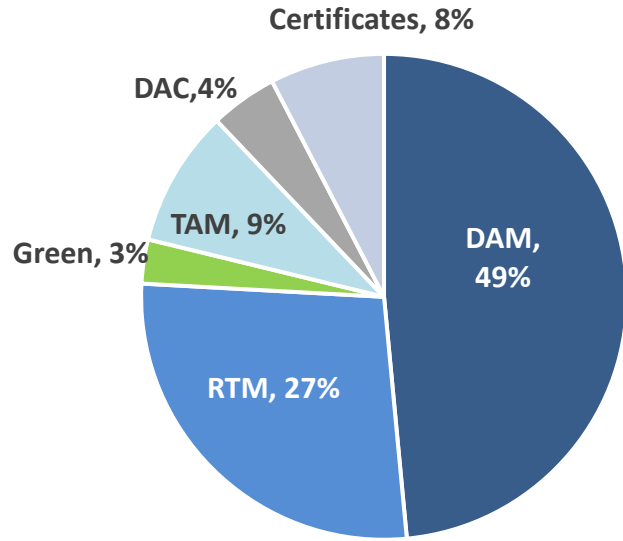
Cross Border Portfolios

**~30%**

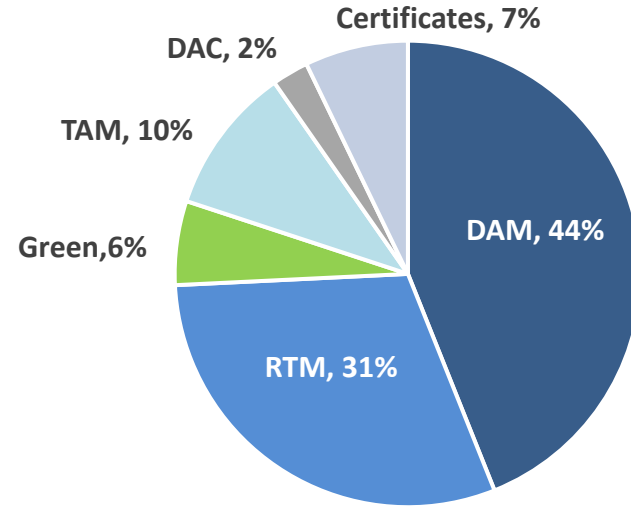
Volume Growth CAGR since 2008



# IEX Changing Product Mix



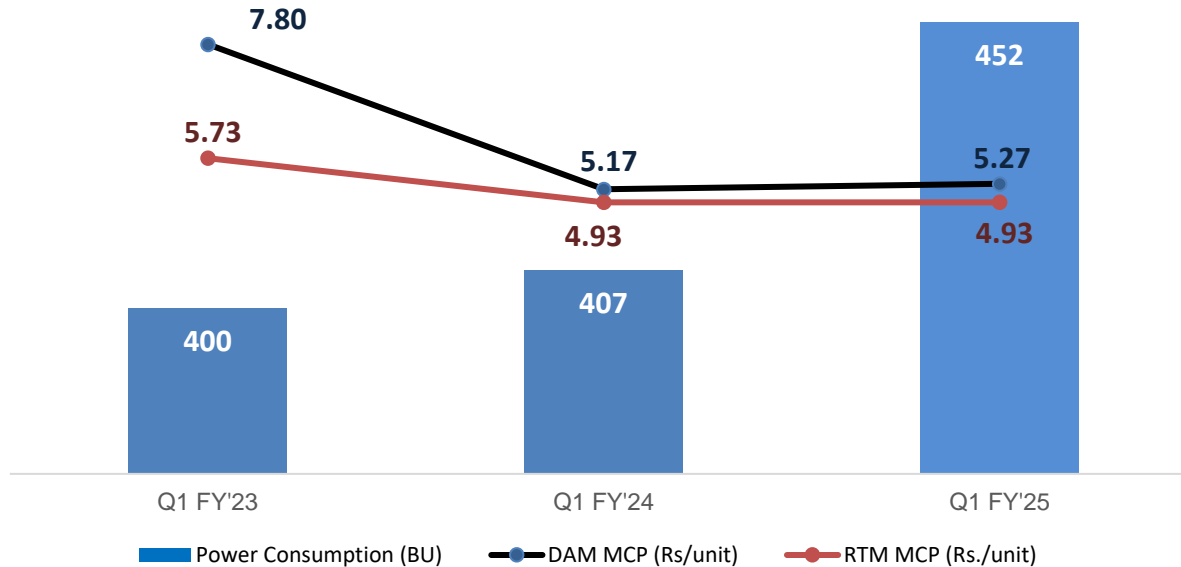
**Total Volume: FY'24: 110.1 BU**



**Total Volume: Q1 FY'25: 30.4 BU**

- Collectives market contributes ~ 80% of Electricity Volume
- RTM, TAM & Green markets registered substantial growth 27%, 28% and 94% YoY respectively in Q1 FY25.
- With implementation of GNA, DAC Volume declined by 157% YoY to 0.8 BU in Q1 FY'25.

# Stable Prices on IEX Despite High Demand



Despite an 11% increase in demand in Q1 FY'25 prices remained stable due to improvement in supply

# Growth Levers for IEX

(1)

## Increase in Power Consumption

- High GDP growth will drive demand
- Electrification of economy – EVs, roof top solar, cooking, railway traction, data centers
- CEA Electricity Demand Projections

(2)

## New Products & Regulatory Developments

- TAM upto 11 months
- Green RTM
- LPSC Rules
- Optimization potential
- REC

(3)

## Re-designing electricity market

- Report on Development of Electricity Market – Roadmap for the future
- Electricity sector Moving Away from LT
- Optimal Capacity Mix next 5-10 Year
- Capacity Contracting

(4)

## Energy Transition

- Changing Energy Mix and RE Integration
- New market models

(5)

## Diversity in Demand/Supply Patterns

- Diurnal Variation
- Seasonal Variation
- Geographical Variation

(6)

## Ample Supply Side Availability

- Adequate availability of fuels at reasonable prices
- New Capacity Addition – both conventional & RE

# Growth Driver 1: Demand Increase

India placed as the most promising economy on the global map

## ➤ Industrialization

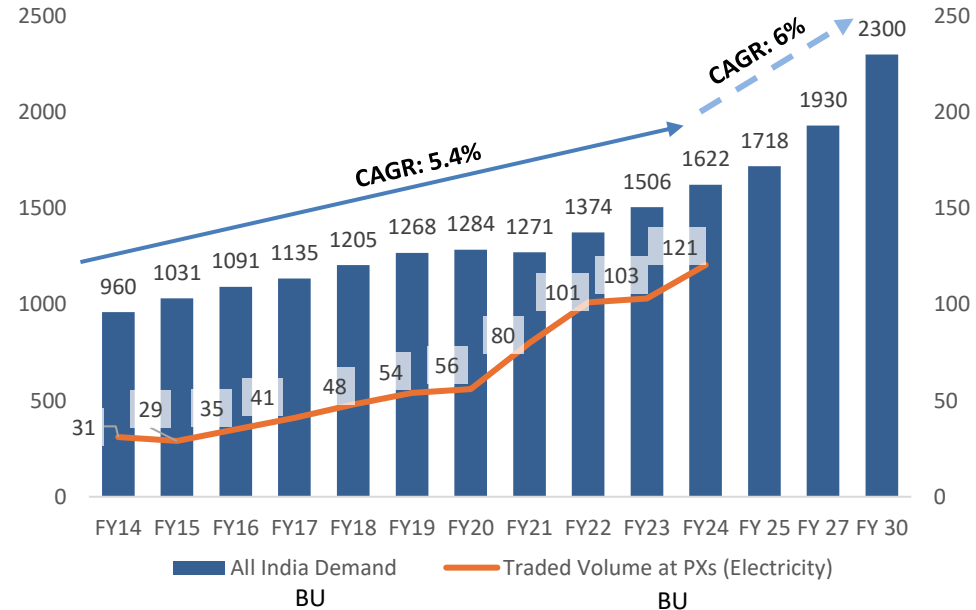
- ✓ High GDP growth of about 7% expected to drive electricity
- ✓ Core sector, traction, EV, Roof Top Solar, Data Centres to drive electricity consumption

## ➤ Consumer Demand Growth

- ✓ Last mile connectivity – Power on 24x7 basis
- ✓ AC consumption to grow 9X by 2050 (IEA)
- ✓ FY24 energy consumption growth ~ 8.0% YoY;  
Q1 FY'25: +11.0% YoY

## ➤ Power Demand Projection for FY 23-30

- ✓ FY 24 onwards – CEA demand growth projections
- ✓ FY 2030 forecast demand 2,279 BU, Peak demand of 335GW



Strong correlation between Exchange volume and Power Demand with a multiplier of 2.7 over a 10-year period. IEX volumes expected to grow significantly on Business-as-Usual basis. Further growth expected with additional levers.

# Growth Driver 2: New Products & Regulatory Developments

## TAM upto 11 Months

- Trade up to 11 months shall help shift DEEP volume to Exchanges.
- Currently DEEP Platform trades is about 40 BU (FY24 data)

## Green RTM

- Filed petition in CERC for launching Green RTM
- Additional market for RE developers, obligated customers to meet sustainability goals

## LPSC Rules

- As per LPSC Rules, generators are mandated to offer Un-requisitioned (URS) power on exchanges.
- Additional sell available in both RTM and DAM, expected to increase further.

## Optimisation Potential

- Opportunity for utilities/C&I to replace high variable cost power by Exchange procurement
- Additional buy particularly during solar hours.

## REC Potential

- REC Fungibility: Single RECs market instead of Solar and Non-Solar segments
- Stricter penalties by MoP, under Section 26(3) Energy Conservation Act for non-compliances
- Floor price of REC eliminated & fortnightly trading of RECs enabled
- REC prices dropped significantly to Rs 128/REC ( July12, 2024 REC trade session)
- REC Inventory of more than 3.5 crore certificates (till July 2024)

# Growth Driver 3: Roadmap for Deepening Market

*MoP Report of the Group on Development of Electricity Market in India, 2023*

## Short Term

(up to 1 year)

- Market based Ancillary Services
- Resource Adequacy & integrated Resource Planning
- Market based RE
- Implementation of ToD & Demand Response

## Medium Term

(1 -2 years)

- Utility Demand Response
- Short Term Capacity Contracts
- Market for Secondary Reserves
- Increase share of RE addition through Markets

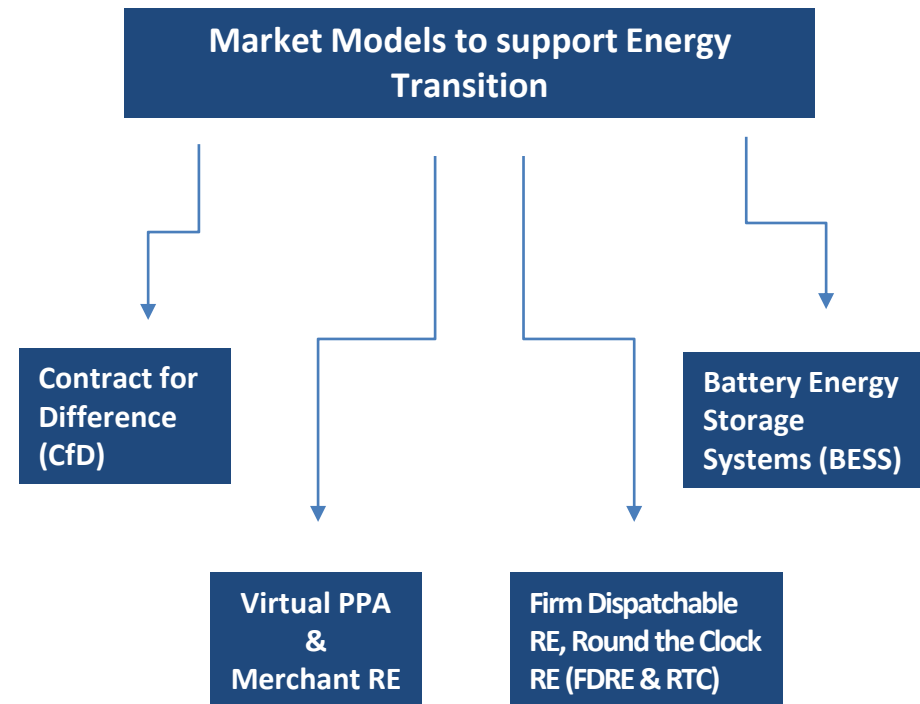
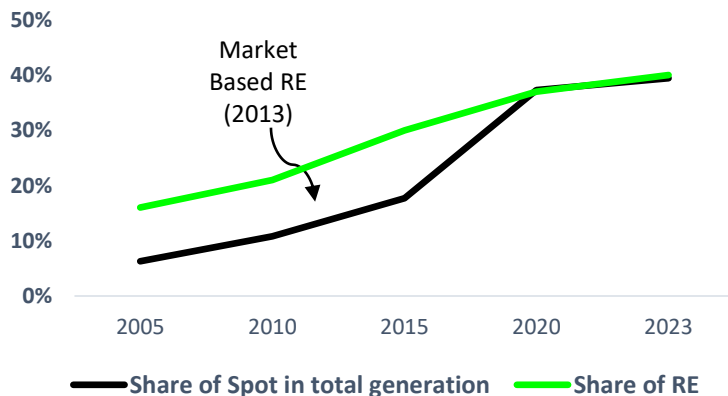
## Long Term

(2 years and beyond)

- Overall interaction of Energy & reserves
- Long term Capacity contracts
- Demand Response & DSO formation
- Entire RE addition through Markets

# Growth Driver 4: Energy Transition

- Future demand requirements will predominantly be met through RE sources.
- European experience of renewables shows adoption of market-based models increased RE penetration.
  - Capacity awarded through CfD auction in UK stands at 33.7 GW and Germany at 15 GW.
  - Market penetration accelerated after RE share crossed 20%.
  - India currently stands where Europe was in 2010 in terms of market & RE penetration.



## Firm Dispatch RE & Round The Clock RE

- FDRE mandatorily includes ESS to provide dispatchable RE power such as assured peak power, load following etc.
- RTC is round the clock renewable supply complemented with supply from any other generation technology.
- Excess generation (~ 20%) from FDRE & RTC tenders to increase sell liquidity at Exchanges.
- In FY24, ~5 GW of FDRE & RTC Tenders were awarded within a price range of 4.55 to 5.59 & 3.99 to 4.25 respectively.

FDRE- Sample Profile for May



## Battery Energy Storage Systems (BESS)

- Charging (Non-Peak) and Discharging (Peak Hours) of BESS can be done through Exchanges.
- The concept note from MNRE proposes to set up market-based BESS of ~10 GWh to sell at Exchanges.
- Other Developments:
  - VGF based BESS – 4,000 MWh; FY24 to FY26
  - NVVN has issued BESS tender of 250 MW/500 MWh under VGF scheme
- Battery capex costs are reducing:
  - 2023: SECI awarded 500 MW at Rs 10.83 lacs/MW/Month
  - 2024: GUVNL awarded 500 MW BESS tender at Rs 3.72 lacs/MW/Yr
- Recently, SECI discovered Rs.3.41/unit for latest tender of 1,200 MW Solar + 600 MW BESS (1cycle 2hour)



# Growth Driver 5: Diversity

## Regional Diversity

### Consumption:

- North India has high demand in Summers/Paddy season
- Lift irrigation/Agricultural demand of Telangana between August to October.

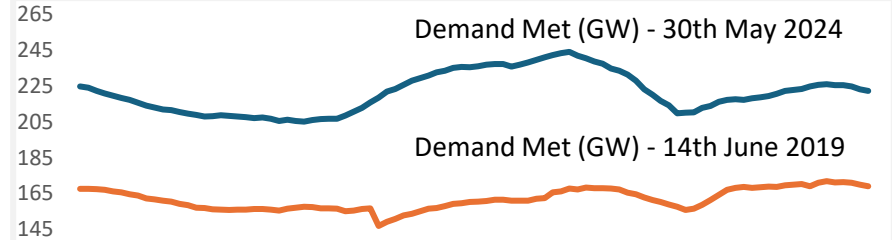
### Generation:

- Wind power : WR, SR
- Solar power : SR, WR
- Hydro power : NR, NER
- Thermal power : ER, Central

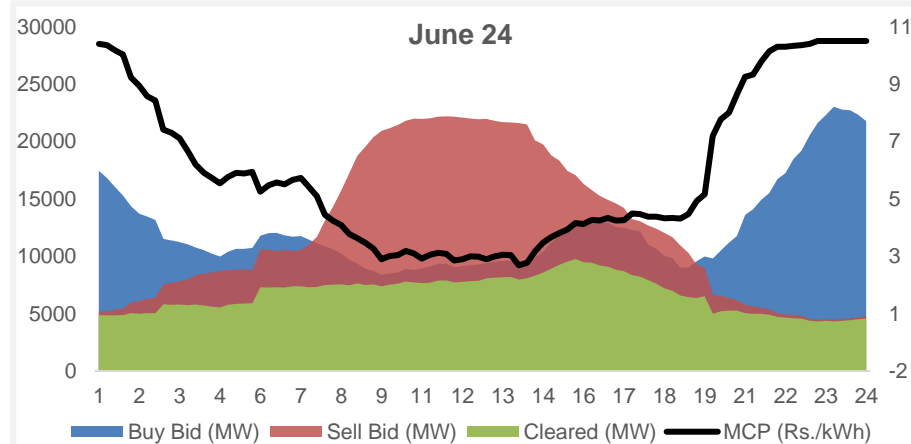
### Increased opportunity for Exchanges due to:

- Diversity in Power Consumption/Supply
- Increased demand during solar hours due to load shifting & TOD tariff

## All India Demand Profile



## IEX Demand Profile



# Growth Driver 6: Increasing Sell Side Liquidity

- Supply side constraints continued to ease through FY'24 and Q1 FY'25 due to various measures taken by MoP.
- FY'24 coal production increased 12%YoY to ~1,000 MT; Q1 FY'25 production higher by 11% YoY at 247MT.
- Imported coal & gas prices down to reasonable levels – PLFs improved significantly.
- Healthy coal stock at generating station - Inventory at high level of 18 days.
- E-auction Premium easing consistently, Coal available under Shakti scheme at a price close to notified price.
- The MoC has set a goal to produce 1.3 billion tonnes of domestic coal by FY 2026 and 1.51 BT by FY 2030 to advance the vision of Atma-Nirbhar Bharat.
- Nine new coal mines commenced production during FY24, which includes four captive mines and five commercial coal mines.
- 28 GW Projects in pipeline and 15GW already constructed.
- Upcoming capacities: 40-50 GW of RE capacity to be added every year. Part capacity expected to be Merchant.

# Other Opportunities for Growth

## Load Shifting to Solar Hrs

- Agri-load shifting & ToD tariff will shift demand to solar hours.
- Increase in cleared volumes during solar hours.

## Capacity Market

- CEA issued final Guidelines for Resource Adequacy (RA) Planning Framework for Centre and States.
- Leads to capacity addition and more sell on Exchanges.
- Paves way for introduction of Short-Term Capacity contracts on Exchange.

## Derivatives

- Will provide hedging options; certainty of price for market participants.
- Framework for Electricity Derivatives under discussion at Joint Working Group of SEBI and CERC.



# Diversification



- ✓ 1st Natural Gas trading exchange
- ✓ 45 registered Members and 170+ registered Clients
- ✓ Automated platform with cutting edge technology; Indigenous price benchmark



- ✓ ICX formed in December 2022 to facilitate voluntary carbon trade.
- ✓ India is a seller of carbon credits (15-20% of the supply in the Global Voluntary Carbon Credit market), buyers are mostly MNC's and Corporates in the European market.
- ✓ As these transactions are going to be Re/\$ transactions; Exploring launch of ICX through GIFT City.

## Coal Exchange

- ✓ Part of the Government's 100-day agenda
- ✓ Closely working with the MoC and other stakeholders to explore this option.

# In Summary

## Growth Levers for IEX:

- 1 **Increase in Demand and Supply**
- 2 **Large Capacity Addition in RE and Storage and Declining Costs**
- 3 **Favorable Regulatory and Policy Framework for Market Development**
- 4 **Diversification**

# In this presentation:

Sector and Business Update

**Customer Centricity and Technology**

Financial Performance

Human Resources

Indian Gas Exchange

# Customer Centricity

- Capacity building workshops for all Discoms
- Promoting Open Access through state wise conferences and seminars
- Web Platform “EnergX”
  - Digital On-boarding
  - Financial Reconciliation
  - Web-based Bidding for all Products across Electricity and Certificate segments
  - Easy access to Trade and Obligation Reports
  - Analytics for effective Bidding decision making
  - Role based effective User Access Management
- Bidding APIs for all Products across Electricity and Certificate segments
- Back Office APIs for Trade and Obligation Reports



# Technology – Key Updates

- DC to DR switch in a real-time mode
- Application level and Technology Infrastructure level enhancements to ensure High Availability in the Real Time Market (RTM)
- Implementation of the best-in-class Perimeter Firewall and Panorama solutions to enhance the Security Infrastructure and Management
- Microservices Architecture implementation for our Exchange Platform
- Implementation of the Artificial Intelligence (AI) based solutions for Technology Infrastructure and Security Monitoring
- Development and Operationalization of the Registry and of the Web-Platform for the Green Credit Programme (GCP) of the Ministry of Environment, Forest and Climate Change of India (MoEFCC). This program was launched by our Honourable Prime Minister during the COP-28 in Dubai on 1st December 2023.

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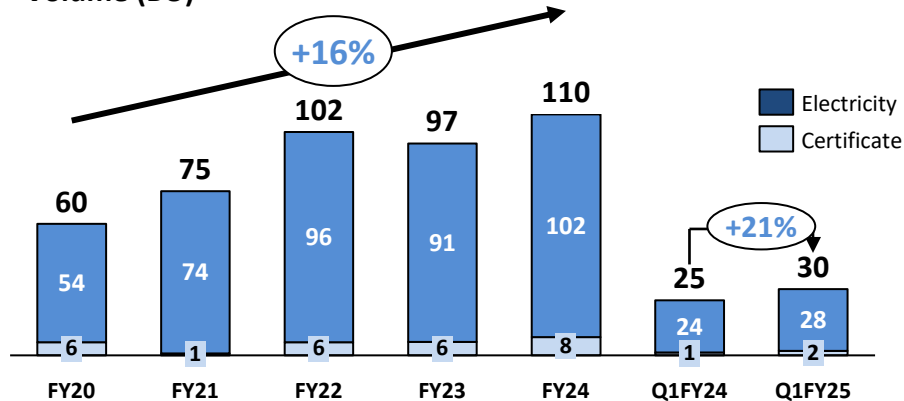
**Financial Performance**

Human Resources

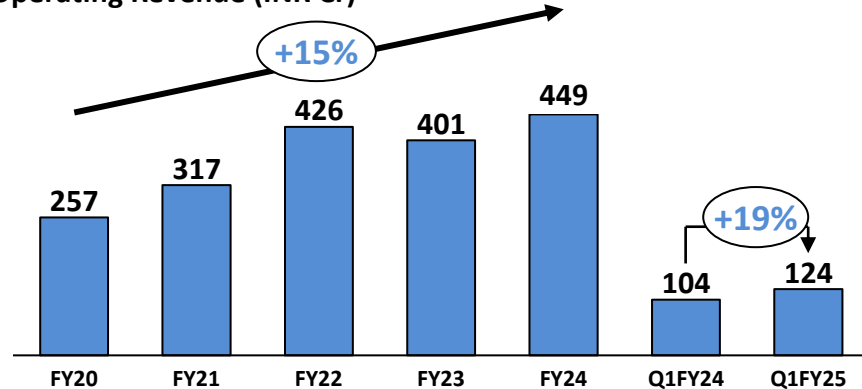
Indian Gas Exchange

# Robust Performance

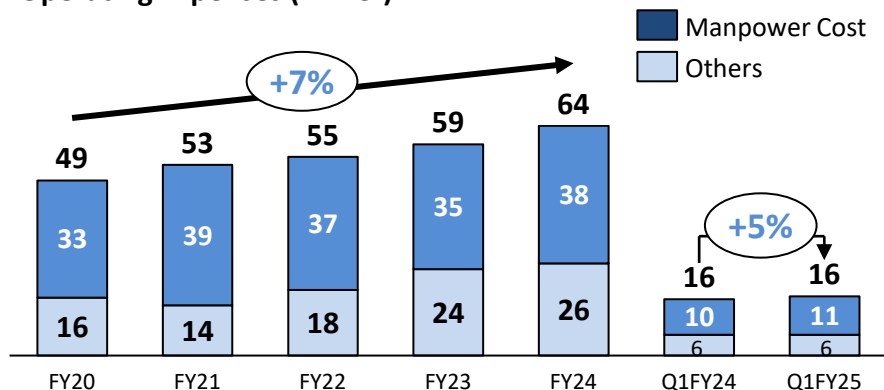
Volume (BU)



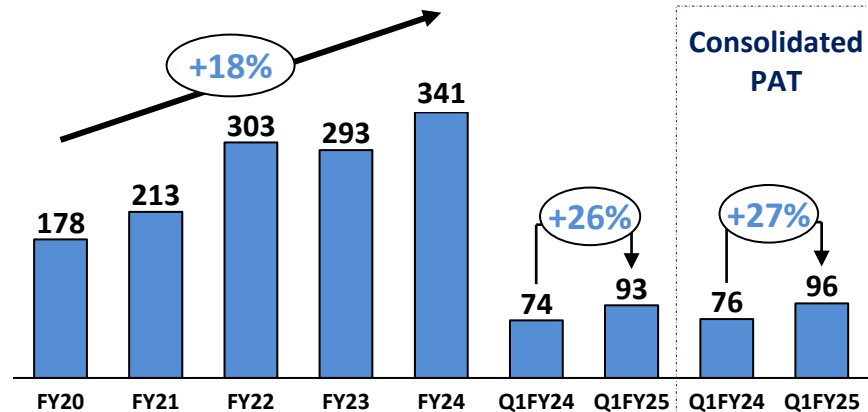
Operating Revenue (INR Cr)



Operating Expenses (INR Cr)

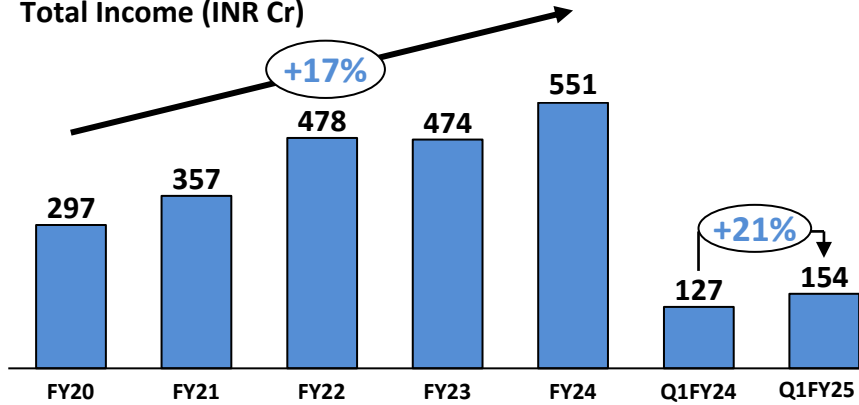


PAT (INR Cr)

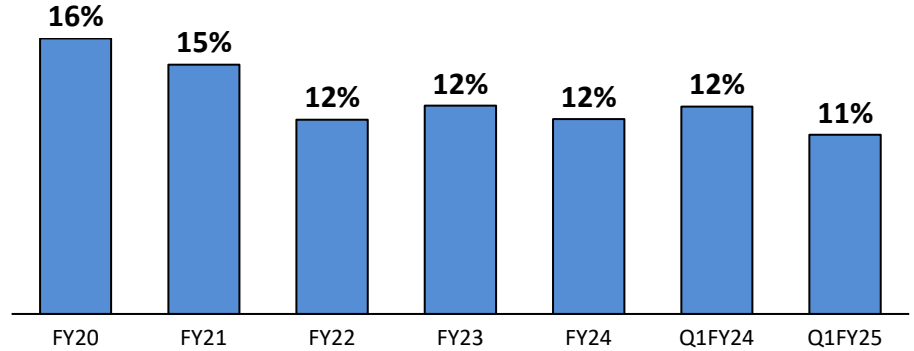


# EPS and Expenses Performance

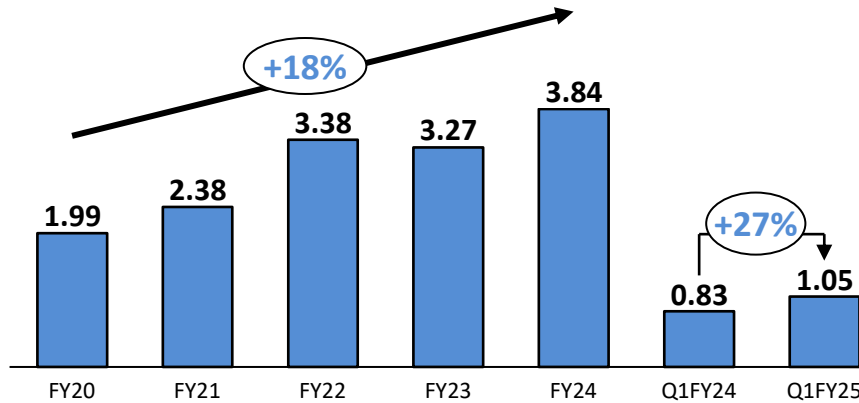
Total Income (INR Cr)



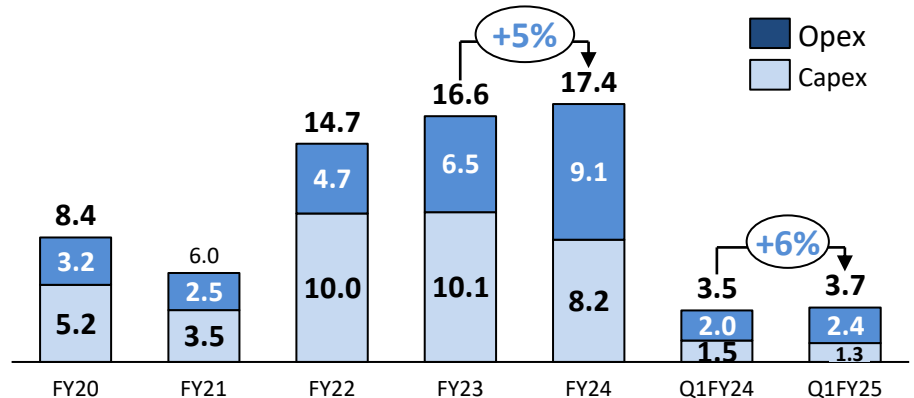
Operating Expenses % to Total Revenue



EPS (INR)

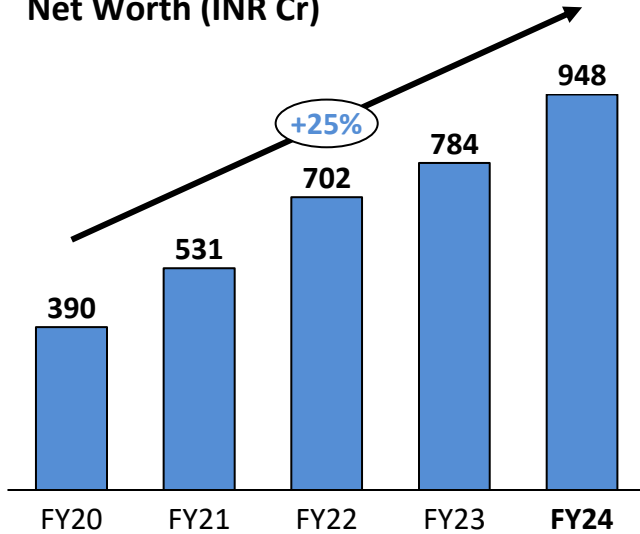


Technology Cost (INR Cr)



# Wealth for Shareholders

Net Worth (INR Cr)

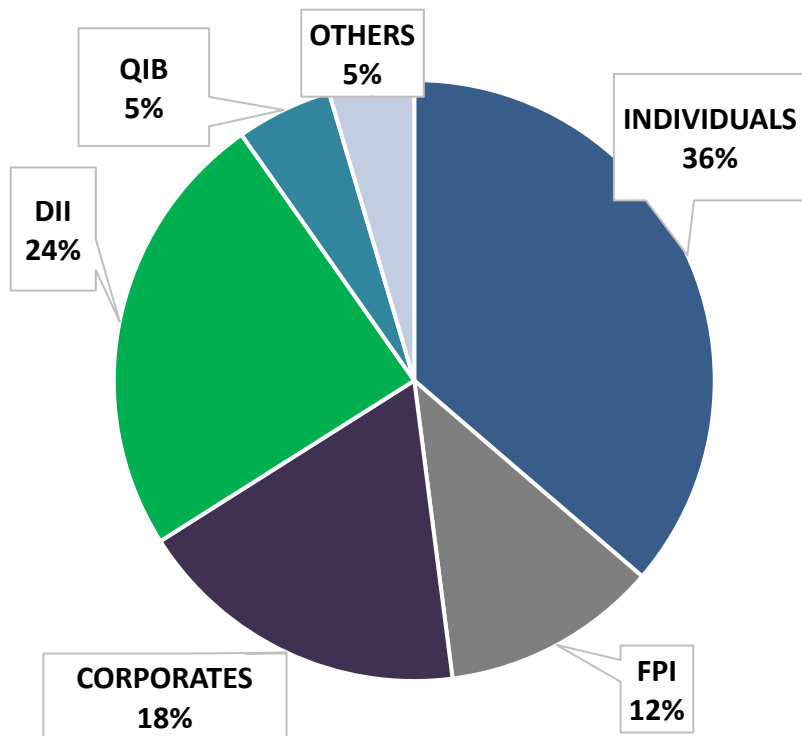


Continuous Payout to shareholders						
S.No	F.Y.	PAT	Buy Back of Shares	Dividend Per Share	Total Cash Pay-out	% of PAT Distributed
1	2023-24	341	-	2.5	223	65%
2	2022-23	293	98	1	187	64%
3	2021-22	303	-	2	180	59%
4	2020-21	213	-	4	119	56%
5	2019-20	178	-	2	90	51%

- Debt free company since inception
- Generating operating cash profits since inception and distributing dividend to shareholders. Focused on creating wealth for stakeholders as well

# Shareholding Highlights

## Shareholding Structure as on June 30, 2024



## Major Shareholders Holding > 1%

S.No.	Name of Shareholders	% of Equity
1	SBI CONTRA FUND	8.53
2	DPVL VENTURES LLP	7.02
3	PARAG PARIKH FLEXI CAP FUND	5.06
4	DALMIA CEMENT BHARAT LIMITED	4.17
5	LIFE INSURANCE CORPORATION OF INDIA	4.08
6	DALMIA POWER LIMITED	3.74
7	MIRAE ASSET ELSS TAX SAVER FUND	3.32
8	AQUAMARINE MASTER FUND L.P	2.95
9	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	1.63

### Stock Info as on June 30, 2024 :

- ✓ No. of Shares Outstanding (in MN): 891.69
- ✓ No. of Shareholders : 15,50,453

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# Recent Employee Development Initiatives



## Capacity Building

*Violet LMS  
IEX Academy  
ET Masterclass*



## Leadership Development

*LEAP  
i Lead  
ELP*



## Skill Enhancement

*REDIS  
LINUX  
Energy Storage*



## Cross Border Knowledge Exchange

*Study tours to  
Berlin, Turkey and  
Singapore*



## Culture Building

*Business Comm.  
Effective Customer  
Handling*

*Focussed on wholesome development of our employees*



# Great Place to Work – 2<sup>nd</sup> Year in a Row



## Survey Parameters



Our testimony of employee satisfaction

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**Indian Gas Exchange**

# Gas Exchange: Overview

## 6 Regional Gas Hubs

### Hubs & Delivery points

- 6 Regional Gas Hubs
- Multiple active delivery points within 3 regional hubs ( Western, Southern, Eastern)

## 6 Contracts

Day-Ahead | Daily | Weekly | Weekday | Fortnightly | Monthly

12 consecutive monthly contracts are available on any trade date

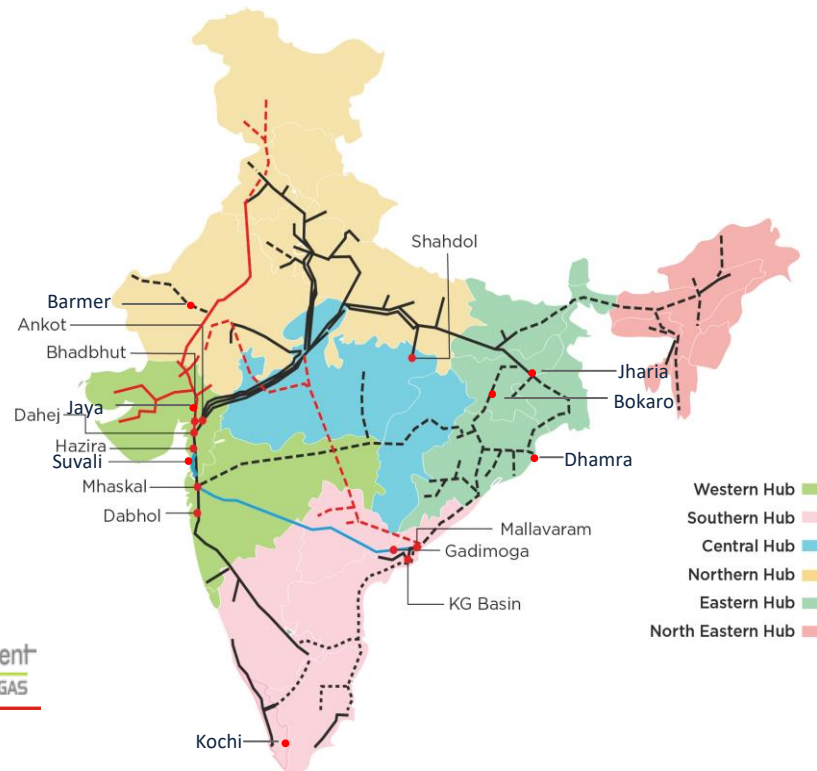
### Facilitates trade for:

RLNG

Domestic gas (with pricing freedom)

small-scale LNG (ssLNG)

### Shareholders:



# IGX Members and Clients

IGX has 45 registered Members and 170+ registered Clients

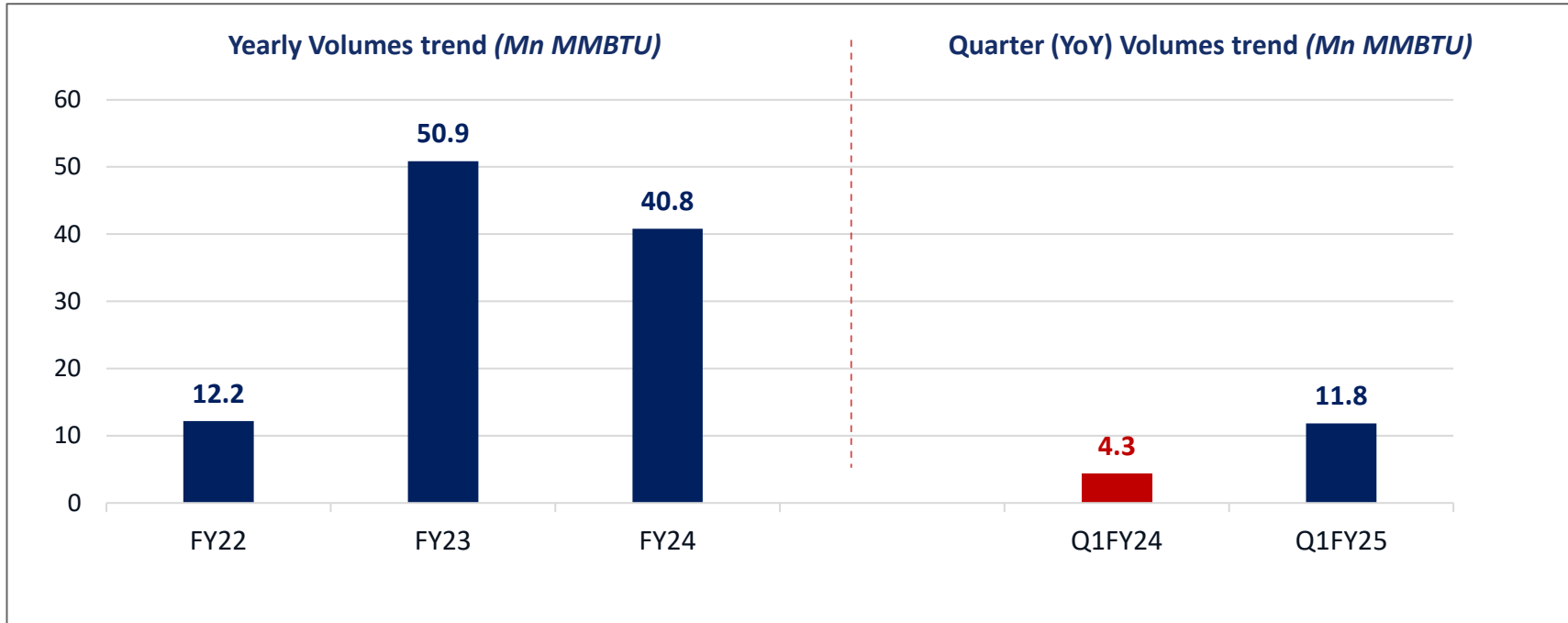
## Proprietary Members

## Trading & Clearing Members

## Clients



# Business Performance Overview



Data till 30<sup>th</sup> Jun 2024

# Future Plans

## Long Duration Contracts (LDCs):

- Have filed application with PNGRB for **3M, 6M and 12 M contracts** linked to benchmarks- JKM, WIM, Brent, GIXI.
- PNGRB approval awaited.

## CBG and Certificates trading:

- MoPNG has prepared a draft of the scheme. The final notification is awaited.
- IGX can operationalize certificates trading and a separate green market for CBG.

## Cross border natural gas trading:

- Can be initiated with neighboring countries like Bangladesh.

## Hydrogen trading:

- Have signed MoUs with ACME Limited and GIFT City and GSPC Limited.

## DGH E-Auctions

- Have been selected as Empanelment Agency by DGH to carry out domestic gas auctions.

## Government's target for gas sector

- Increasing share of Natural Gas in energy basket from current ~6% to 15% .
- Development of National Gas Grid (One Nation One Gas Grid).
- CNG Gas stations from 7000 to 17,500
- PNG connections from 13mn to 120 mn

## Infrastructure Development

- LNG terminals capacity is expected to grow from current 47.7 MMTPA to 70+ MMTPA in 3 years
- Transmission pipeline network is expected to grow from ~25,000 km to 35,000 km+ in coming years
- CGDs: With completion of 12A CGD bidding round ~100% population and area (except islands) has been authorized.

## Domestic Gas Production

- Further growth anticipated with more fields expected to come online (KG basin, Kutch-Saurashtra Blocks, Mahanadi basin, CBM blocks).

## Market Developments

- Natural Gas under GST
- Implementation of new Access Code Regulations and Incorporation of TSO
- Mandates on ban on use of polluting fuels; carbon tax mechanisms to push use of clean fuels
- Open Access in CGDs.

- **Gas consumption expected to increase from present 180 mmscmd to 400 mmscmd by 2030 providing significant growth opportunity for IGX**
- **IGX share in the overall gas consumption expected to increase from present 2% to 4-5% by 2030 (~250 MMBTU; CAGR: ~36%)**



**Thank You**





# Question and Answers