



Dated: September 11, 2020

**The Manager**  
**BSE Limited**  
**Corporate Relationship Department**  
**Phiroze Jeejeebhoy Towers**  
**Dalal Street**  
**Mumbai- 400001**

**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**

**Scrip Code: 540750**

**Symbol: IEX**

**Sub: Investor Presentation Q1 FY 2021**

Dear Sir / Madam,

Pursuant to Regulation 30 of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, please find attached an Investor Presentation for Q1 FY2021.

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**  
**Company Secretary & Compliance Officer**  
**Membership No. ACS-16264**

Encl: as above

# Investor Presentation - Q1 FY'21



# In this presentation

## Sector in transformation

Electricity value chain

IEX : Who we are

COVID - 19

Way forward

## Decarbonization



Deployment of low-carbon technologies - wind and solar

### **Outlook:**

- Renewables to become leading energy sources
- Emerging new tech like hybrids

## Decentralization



Small-scale generation across T&D network

### **Outlook:**

- RE a threat to centralized energy production
- Requirement of local solutions

## Digitization



Intelligent CS and Apps to optimize plants and grid

### **Outlook:**

- Digital Tech to promote aggregation solutions

## Democratization



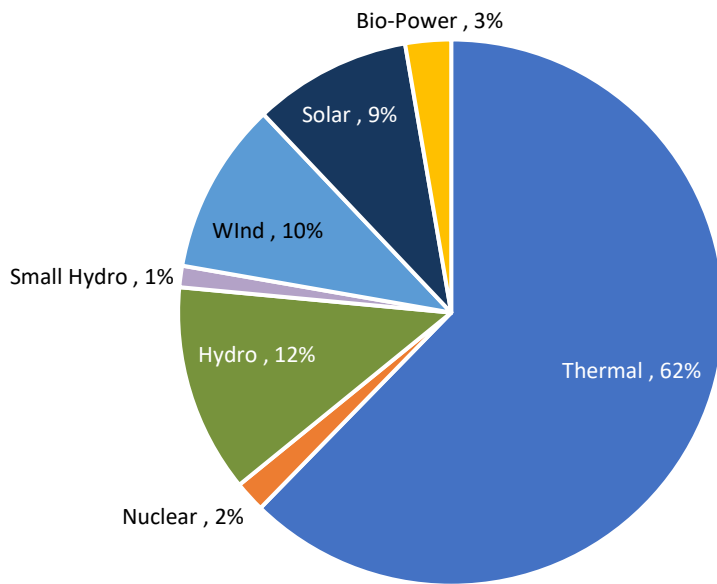
Empowered consumers - economic power shift

### **Outlook:**

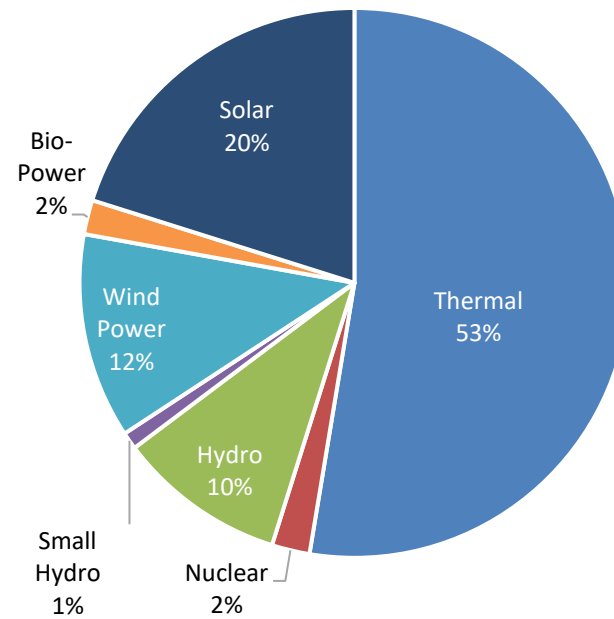
- Peer to peer energy trading

# The energy shift

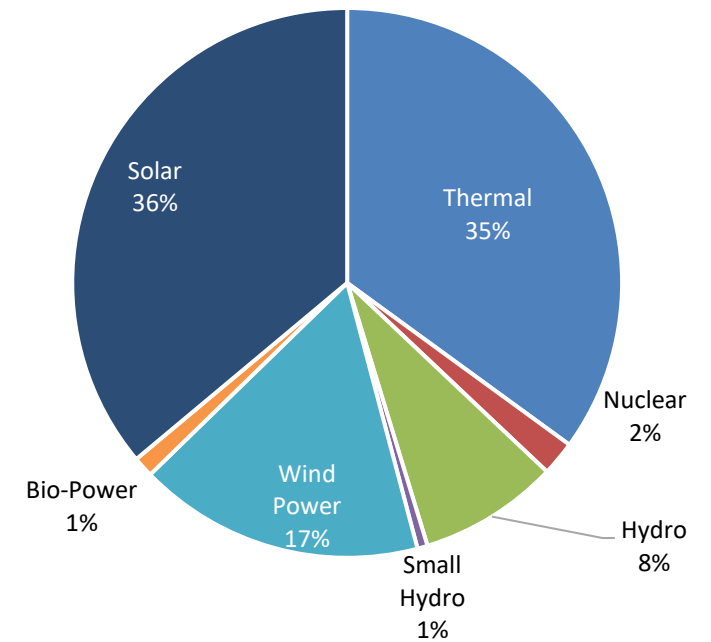
*Hybridization requires technology driven apps and automation*



2020



2022



2030

**Changing Installed Capacity Mix – Increasing reliance on RE**

Sector in transformation

## Electricity value chain

IEX : Who are we

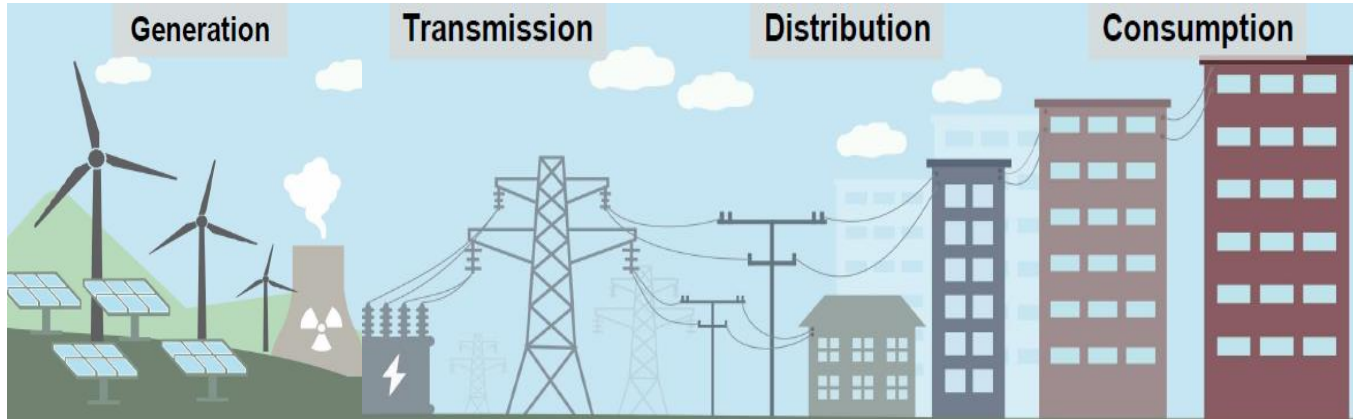
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**In this  
presentation**

# Electricity value chain



Generation de-licensed

Transmission is licensed

Distribution licensed

Large capacity additions leading to decline in energy deficit from 10% to 0.6% over the last decade

Private sector ~46%

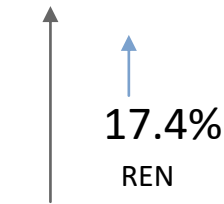
World's largest network

Financial health in bad shape

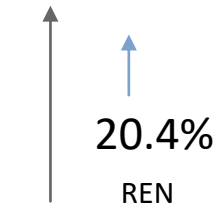
Merchant capacity ~20GW

Strong transmission system, congestion free market

5 Yr CAGR (%)\*



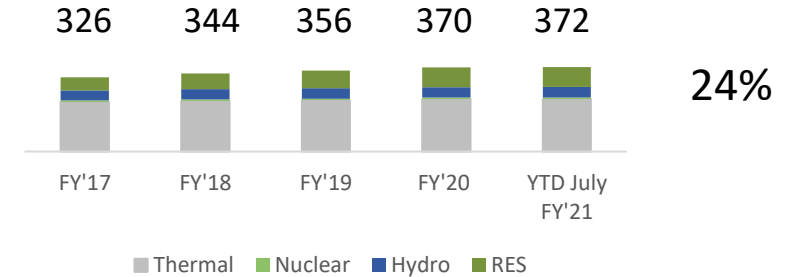
6.1%



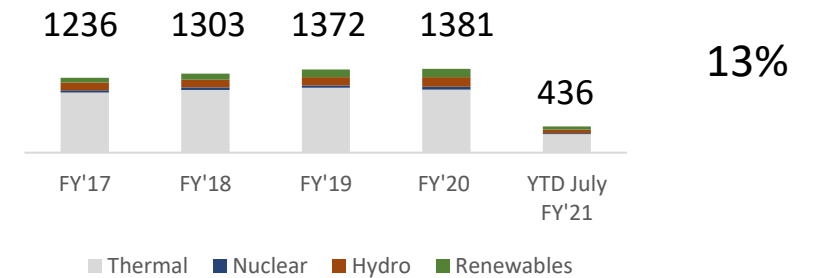
4.3%



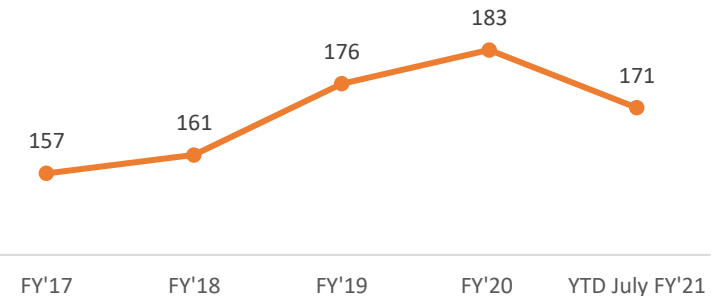
CAPACITY (GW)



GENERATION (BU)

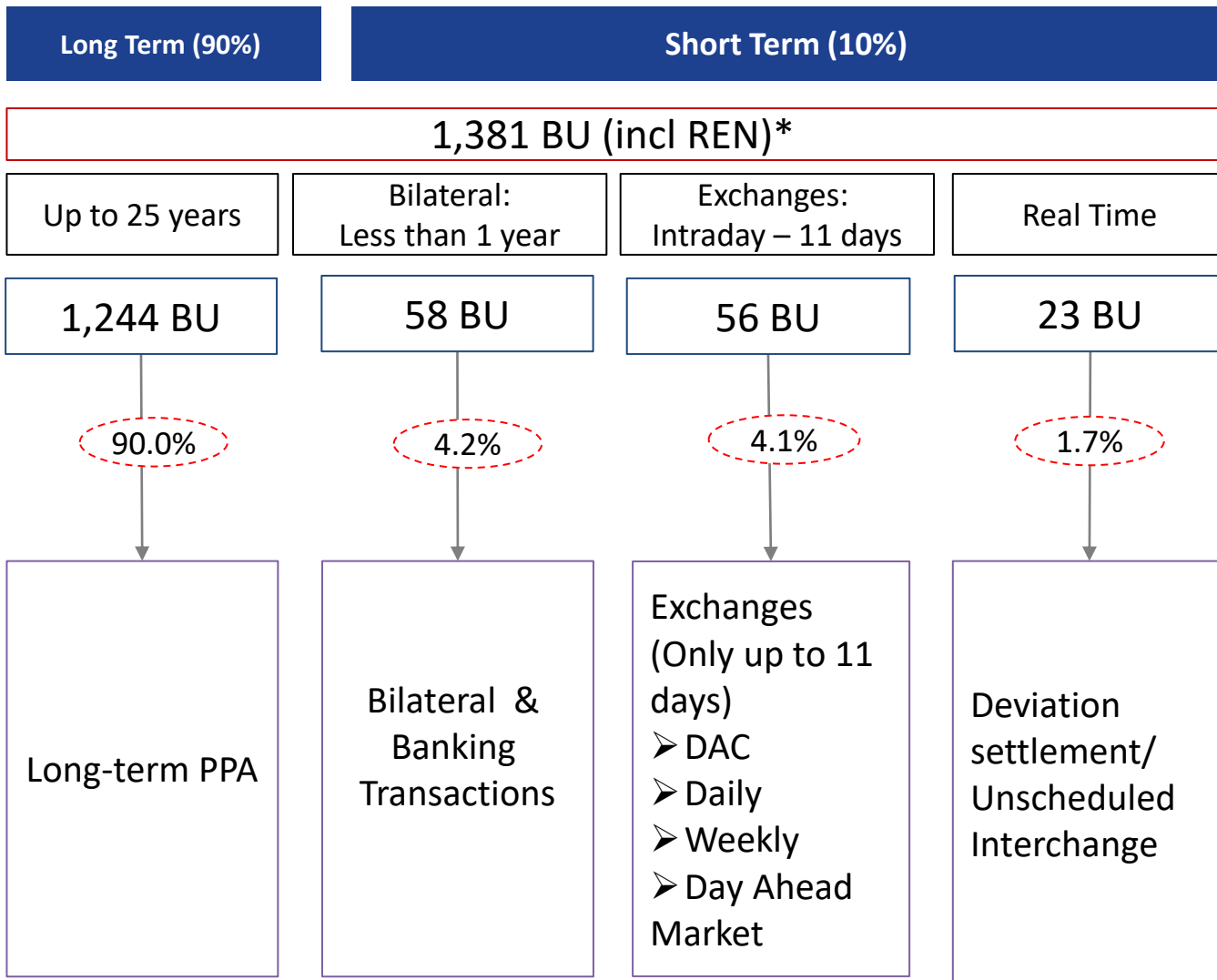


PEAK DD (GW)



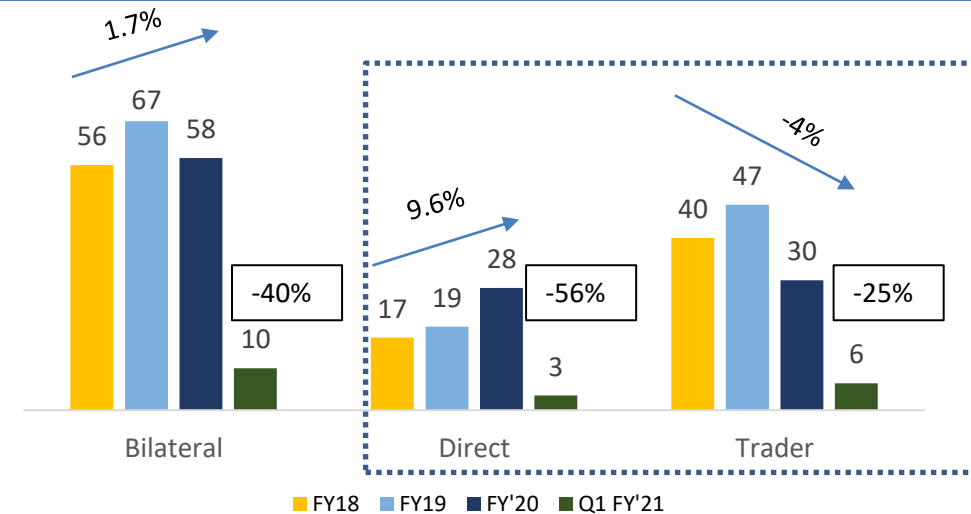
• Source: CEA; MOP 5 year vision; press, CAGR as of FY'20; Generation CAGR is for 4 years

# Power sector construct

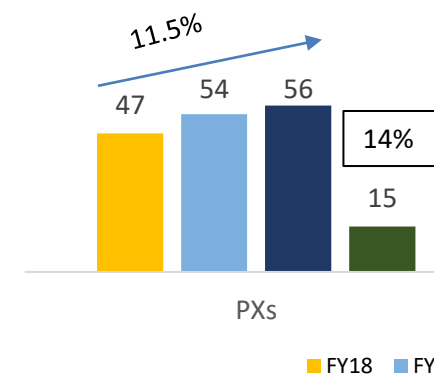


- As of FY'20
- Source: CEA, CERC

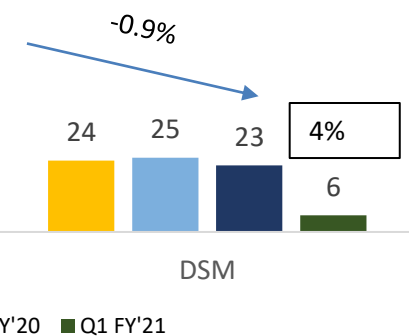
## Bilateral (BU)



## Exchange (BU)



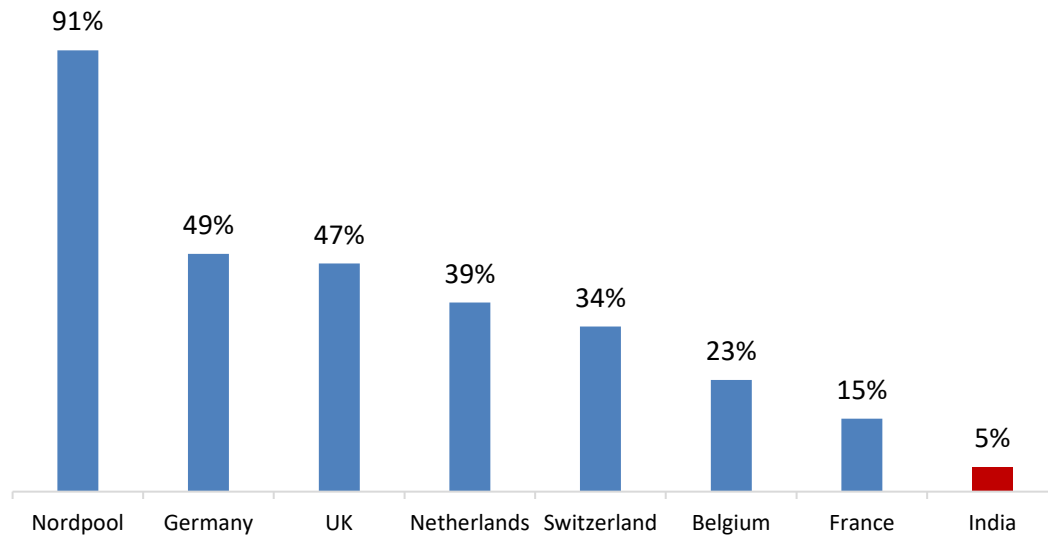
## DSM (BU)



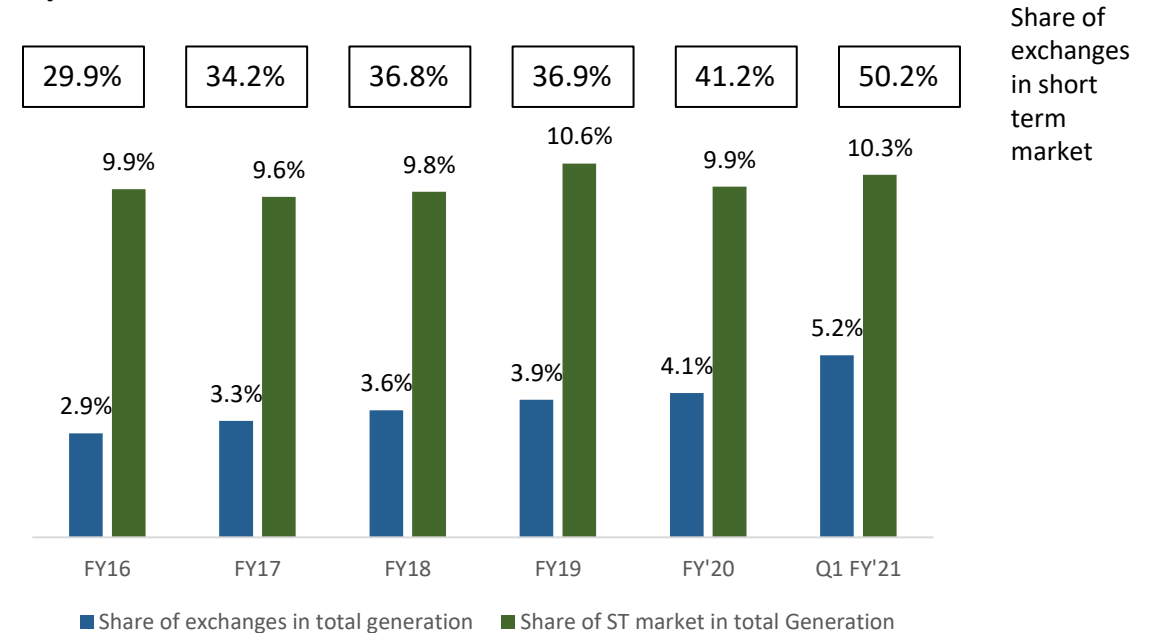


# Share of power exchanges globally

Exchange market as a % of total demand – Global<sup>1</sup>



Exchange market and ST market a % of total generation (incl Ren) – India<sup>2</sup>



**Power markets in developed economies are in the range of 30-80% of total power demand vis a vis 5% in India\***

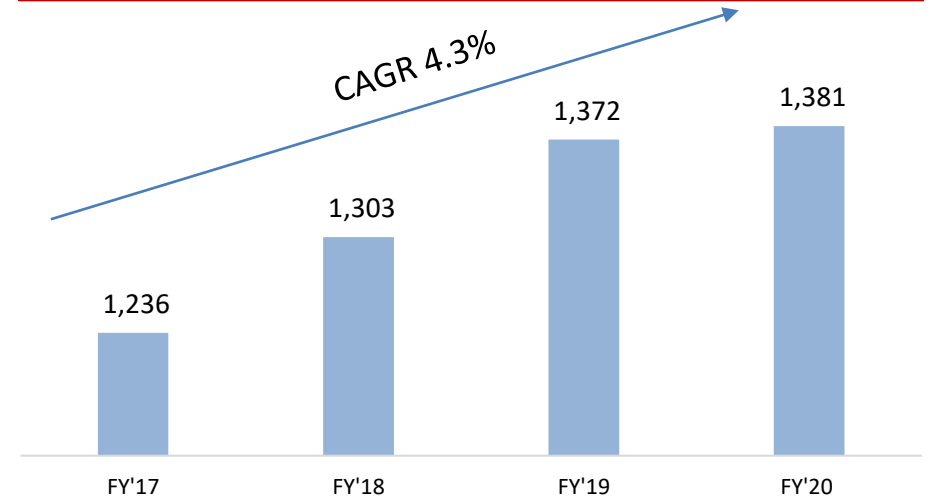
Source: 1. CRISIL Study 1. CERC; CEA

\*\* As in Q1 FY 2021

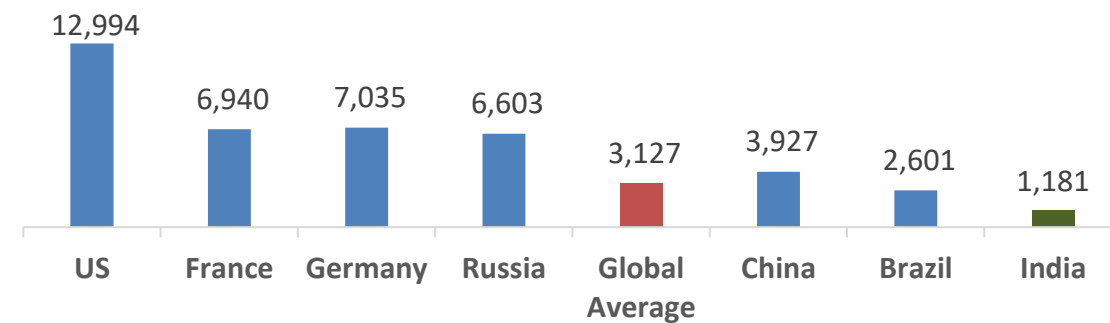
# Electricity consumption bound to increase

- **Per capita consumption in India is 1/3<sup>rd</sup> of global average**
  - Per capita consumption expected to double in the next 5-6 years
- **Economic activity will accelerate**
  - Government envisions India as an industrial hub
  - Core sector growth will drive electricity consumption
- **Rapid urbanization**
  - 17 of 20 world's fastest growing cities in India
- **Consumer demand growth**
  - Last mile connectivity - Saubhagya : Power for All
  - Power on 24x7 basis

**Total Electricity Demand (BU)<sup>1</sup>**



**Per Capital Electricity Consumption (KWh)<sup>2</sup>**



Source: 1. CERC; 2. World Bank; 3. CEA



# In this presentation

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**IEX : Who we are**

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Way forward

# Who we are

- India's leading power exchange – Nation wide, Automated and transparent platform for physical delivery of electricity
- Commenced operations in 2008, Market Share: **95%** (DAM & RTM >**99%**)
- Electricity CAGR 32%, CERC regulated
- Average daily trade **6000+ MW**
- Record day volume : 308 MU's (12,900 MW)
- Our customer base
  - 4000+** Industries | **55+** Discoms (all) | **100+** ESCert Entities
  - 500+** Generators | **1500+** RE Generators & Obligated entities
- *Publicly listed company (NSE and BSE)*
- *ISO 9001:2015, ISO 27001:2013, ISO 14001:2015*

## OUR VISION

To be the architect of next-generation solutions for sustainable energy ensuring competitive, transparent and reliable access.

Transparency

Liquidity

Competition

# Benefitting Power Sector...and the nation

- Provides benchmark prices for all electricity transactions
- Transparent Mechanism for Price Discovery
- High liquidity on exchange has ensured lowest cost and assured supply

## Truly benefited Indian Power Sector



### Generation

▶ **Signals for Generating Capacity addition (~20 GW Merchant plants)**



### Transmission


▶ **Investments in transmission-congestion free – One Grid One Price**



### Distribution

- ▶
- **Lower power prices** for discoms, end consumers.
  - **Avoids buying under take-or-pay contracts.**
  - **Flexibility** on 15-min basis

# Market Segments

<b>Day-Ahead Market</b> since June,08	<ul style="list-style-type: none"> <li>• <i>Delivery <u>for next day</u></i></li> <li>• <i>Price discovery: Closed , Double-sided Auction</i></li> </ul> 	
<b>Intraday Market &amp; Day-Ahead Contingency</b> Round the clock since Jul'15	<ul style="list-style-type: none"> <li>• <i>Intraday: For Delivery <u>within the same day</u></i></li> <li>• <i>DAC: <u>Another window for next day</u>, Gate closure : 3.5 hours</i></li> </ul> 	 <b>Continuous</b>
<b>Term-Ahead Contracts</b> since Sep,09	<ul style="list-style-type: none"> <li>• <i>For delivery <u>up to 11 days</u></i></li> <li>• <i>Daily Contracts, Weekly Contracts</i></li> </ul> 	 <b>Auction</b>
<b>Renewable Energy Certificates</b> since Feb,11	<ul style="list-style-type: none"> <li>• <i>Green Attributes as Certificates. Sellers : RE generators not under feed in tariffs Buyers: Obligated entities; 1MWh equivalent to 1 REC</i></li> </ul> 	
<b>Energy Saving Certificates</b> since 27 Sep'17	<ul style="list-style-type: none"> <li>• <i>1 Escert= 1 Mtoe( Metric Tonne Oil Equivalent)</i></li> <li>• <i>Trading Session every Tues of Week, Trading time 1300 hrs to 1500 hrs</i></li> </ul> 	
<b>Real-Time Market</b> since 1 Jun'20	<ul style="list-style-type: none"> <li>• <i>Delivery <u>within an hour</u></i></li> <li>• <i>Price discovery: Closed , Double-sided Auction</i></li> </ul> 	
<b>Green Term Ahead Market</b> since 21 Aug ,2020	<ul style="list-style-type: none"> <li>• <i><u>Intraday, DAC (commenced) Daily and Weekly (starting soon)</u></i></li> </ul> 	

- **India is seeing rapid transformation of energy ecosystem**
  - Signatory to Paris Climate Agreement 2016
  - 40% of RE energy by 2030
  - 450 GW installed RE Capacity
  - Consumer preference shifting towards green energy



- Introduced a new market segment – Green Term Ahead Markets
- Trading commenced on 21<sup>st</sup> August 2020
- Green market contracts – Day Ahead Contingency, Intra Day, Daily and Weekly
- **Benefits**
  - Achieving national green aspirations
  - Access to pan India market
  - Integrated approach to energy + RPO
  - Most competitive prices
  - G-TAM + RTM to support RE integration
- **Way Forward**
  - Comprehensive green solution to buyers and sellers through launch of GDAM
  - Working with government to promote investments in renewable energy through market-based system (feed in premium)

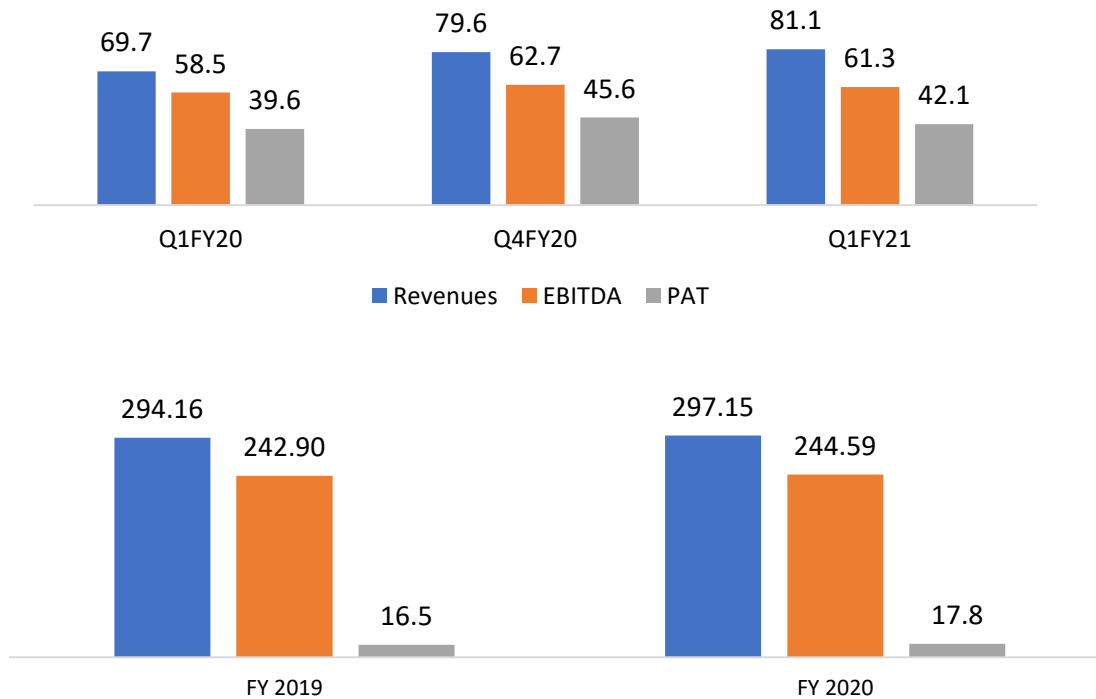


- Introduced a new market segment - Real Time Markets
- Trading commenced on 1<sup>st</sup> June 2020
- Market Features
  - 48 bid sessions during the day; Each bid session for a duration of 15 minutes
  - First bid session starts at 2245 hrs
  - Double-sided anonymous auction bidding process
  - Exchange manages risk management
- Benefits
  - Manage power demand-supply variation
  - Provide an opportunity to generators to sell their surplus power/un-requisitioned capacity
  - Help grid operators to enhance overall safety and security of the grid

**Traded 515 MU in June  
2020**

# Robust financial performance

## Consolidated Financials Rs Cr



Source: Company  
Q1 FY21 includes Rs 5 Cr contribution towards PM Cares Fund

Breakup of standalone revenues (%)	Q1 FY 2020	FY 2019	Q1 FY 2021	FY 2020
Transaction Fees	81%	80%	77%	80%
Admission and Annual Fees	6%	6%	5%	6%
Other Income	13%	14%	18%	14%

## Robust business model and financial strength



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# IEX extending support during the crisis

- Enabling replacement of costly PPAs through buying on exchange
- Supporting distribution companies in supplying 24\*7 uninterrupted power
- Extensive customer engagements and communication drives
- Providing round-the-clock operations with seamless connectivity and high security
- End to end automation allowing remote working
- Pivoting on employee safety as the first principle

# Providing significant savings to DISCOMs



In April, the first full month of the lockdown, national power demand crashed by 25% year-on-year. Photo: Indranil Bhoumik/Mint

**“Maharashtra discoms turn to energy exchanges, shun costly PPAs” – PTI – April 12, 2020**

*"We are increasingly buying power from exchanges, which is cheaper than PPA tariffs," an official from state utility Mahavitaran*

**“Power utilities turn to cheaper exchange power as prices crash” – Live Mint – May 28, 2020**

*“We’ve been doing this for 6-7 months at APTransco, and we managed to save ₹500 crore in FY20. We were well placed to maximise this benefit when spot prices fell on the exchange during the lockdown in March and April. We saved ₹56 crore and ₹132 crore in those two months. We were able to buy power for as low as ₹1.8 a unit at one point.”*





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**Way forward**

## 1. Expand coverage and market

- Launch new products
- Advocacy to increase short term market

## 2. Best in class, futuristic Technology Infrastructure

- Enterprise IT, trading platform
- Technology & analytics solutions for customers

## 3. Strengthen the organisation

- Capacity building, hi-performance culture
- Talent acquisition, development and retention

## 4. Business diversification

- Play in the energy (eg. - gas) basket of India
- Energy efficiency technology solutions



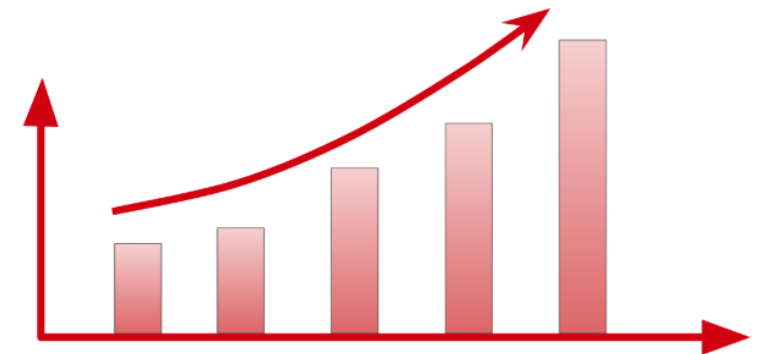
# Expand coverage and market

## New Product Launches

- Cross Border Trade
- Longer Duration Contracts
- Exchange based Ancillary Market
- Green Day Ahead Markets
- Banking contracts

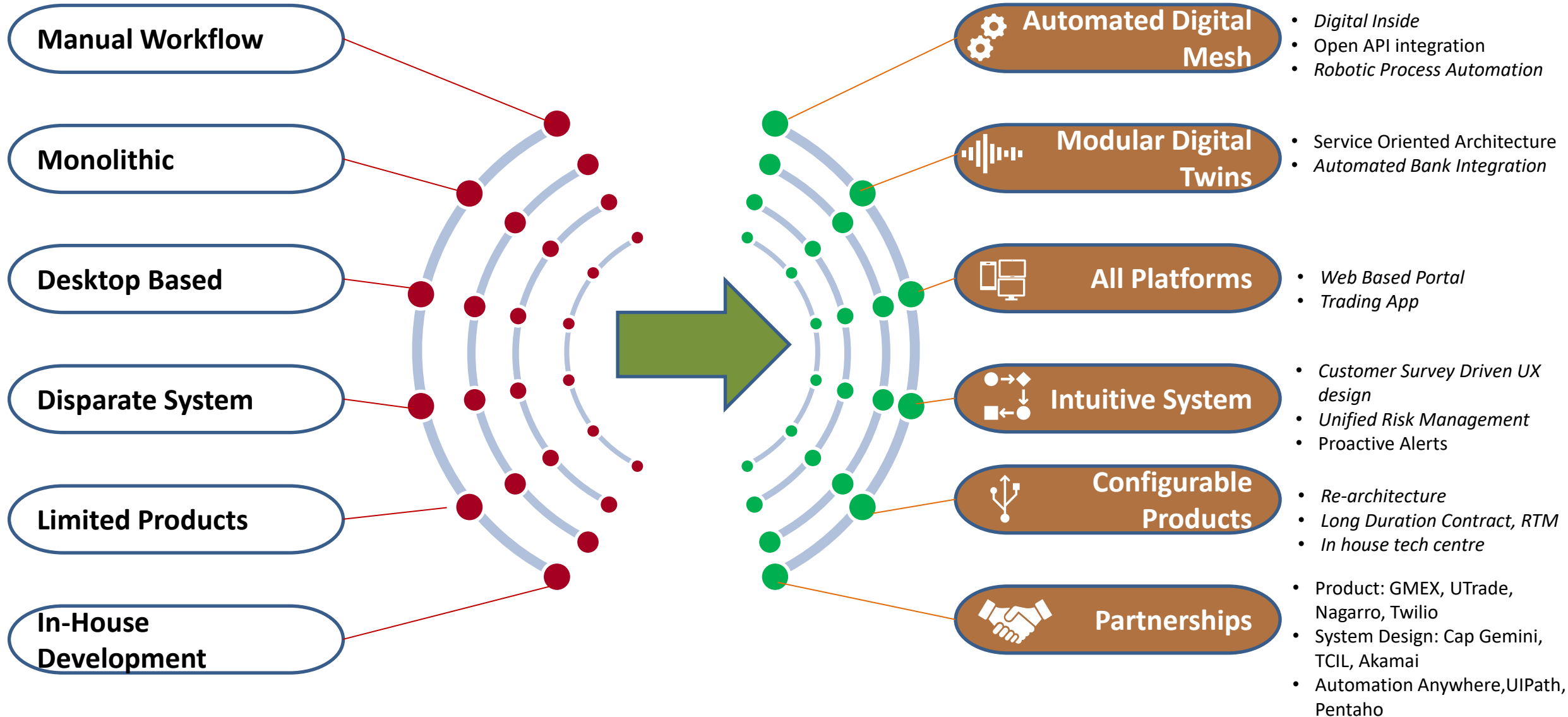
## Tech based

- Smart Power Procurement
- Analytics
- Integration of RE with conventional power through exchange





# Technology in transformation



# Smart Product/Bids



## **S** – Self-service web/mobile applications

- enable customers' anytime anywhere easy access

## **I** – Intelligent process automation

- reduce customer effort; insights to enable effective decision making

## **M** – Matching engine optimization

- increase social welfare

## **P** – Product launches

- meet the needs of all customer segments

## **L** – Learning opportunities for our customers

- experiential learning for customers through organizing events

## **E** – Energy portfolio management solutions

- optimize procurement cost for customers

**Create effective solutions to fulfil all Power Procurement related needs of our customers**

## Govt vision of gas-based economy

- Govt policy targets to increase share of natural gas in India's energy basket from 6.5% to 15% in 5 years.
- This would lead to Indian Gas market growing 2.5X (166 to 380 MMSCMD) by 2030.
- A robust gas trading exchange enabling seamless transactions can help Govt realize this ambitious target.

## Market gaps and need

- Buyers desire price transparency, flexibility and anonymity to overcome suppliers' bargaining power.
- MoPNG has expressed the need for a Gas Trading Hub. Taken steps towards market development.

## Our plan/solution

- To optimize trading value chain, set up a Gas Exchange - Physical hubs near Dahej, Hazira and Oduru.
- Prompt and longer duration products with delivery facilitation by the exchange.
- State of the art and proven exchange technology backed with long experience in electricity

## Enablers required for success

- The history of gas market hubs globally has shown that certain steps are needed to enable development
- Few technical issues need resolution to ensure liquidity and enable efficient trading at the hub

Thank You