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TheMarket
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Transformation drivers

- 1) Decarbonization - use of solar & wind ,RE (renewable energy)
- 2) Decentralisation - RE a threat to centralized energy productn
- 3) Digitization
- 4) Democratization- peer 2 peer energy trading

Changing energy mix

2020/ 2022 /2030 % of contribution

Thermal 62 /53 /35

Wind 10 /12 /17

Solar 9 / 20/ 36

Hydro 12 / 10 /8

Electricity value chain 4 parts

Generation - Transmission - Distribution - Consumption

Power sector construct

Long term 90%

Short term 10%

Power markets in developed countries are in range 30 - 80% of total power demand ,India 5%

Share of exchange in total generation

2016 - 2.9 %

2021 - 5.2%

Share of ST market in total generation

2016 - 9.9%

2021 - 10.3%

Exchange mkt & ST MKT as % of total gen

2016 29.9

2021 50.2

Electricity consumption to increase

Per capita consumption India 1/3rd global avg, to double over 5 yrs

- Core sector growth, industrialization, rapid urbanization to drive demand

Last mile connectivity- Saubhagya, power for all 24/7

Demand

2017 - 1236 BU

2020 - 1381 BU

#stocks

Per capita electricity consumption (KWh)

US 12994

Brazil 2601

China 3927

Global avg 3127

India 1181

IEX India leading power Xchange platform, mkt share 95%

Avg daily trade 6000+ MW

Record day vol 308 MUs

Customer

Industries 4000+

Discoms 55+

ES Cert 100+

Generators 500+

REs 1500+

#IEX Benefits

Benchmark prices for all electricity transactions

Transparent mech for price discovery

High liquidity on Xchnage ensure low cost, assured supply

One grid one price

Lower cost for discoms end users

Flexibility on 15 min basis

Market segments

Day ahead mkt, Intraday, Term ahead 11 days, RE certification, ES Cert, Real time within an hour

India signatory to Paris agreement 2016

40% RE by 2030

450 GW installed RE capacity

Consumer demand for green energy

New Green term ahead mkt, launched Aug 2020

Real time market segment

Launched Jun 20

48 bid sessions intraday, 15 min each starting 22.45, anonymous bidding

Benefit - manage demand supply ,generators can sell excess/surplus capacity ,Enable grid operators to enhance safety/ security of grid

New launches

Cross border trade ,green day ahead mkt, longer duration contract ,banking contracts ,gas exchange
Maharashtra discoms turned to Xchanges ,shunned costly PPAs in Apr 2020

IEX transaction vols up 4x 2011 to 20

India electricity mkt dominated by Longterm PPA ~90%

Need for ST Mkt currently 10% driven by supply issues,price arbitrage opportunity, load variance

Gradual shift toward ST mkt

Energy xchange platforms

IEX 95 % share

PXIL of NSE 5%

97% contracts of daily traded vols in Day ahead mkt (DAM) & Term ahead Mkt (TAM) pass thru IEX

Low cost operating structure

90% income from transaction fees INR 0.04/kwh/transaction

10% from admission & membership fees

Risk to IEX model :

Lower transaction fee

New players

Stagnant mkt share

Change in Xchnage platform design

@IndianEnergyXch

Unroll

@threadreaderapp

@IndianEnergyXch

Mkt share of 95%/40% of spot/short term power mkt

Shift of vols to power exchanges & new products to aid growth

Better price discovery, transparent pricing,RE ,low transmission congestion to shift momentum to Spot mkt

Zero debt,efficient cash conversion,80% GMs