

Indian Energy Exchange Limited

9th May 2023

Diversifying product portfolio to fuel future growth

Indian Energy Exchange Limited (IEX) is a leading energy marketplace in India, providing an online platform to carry out electricity trades. IEX provides various instruments in the electricity market, including Day-Ahead Market (DAM), Term-Ahead Market (TAM), Real-Term Market (RTM), green market instruments such as Green-TAM (GTAM) and Green-DAM (GDAM), and certificates such as Renewable Energy Certificates (REC) and Energy Saving Certificates (ESCs). The exchange enlists 7,300+ participants from across the country, creating an ecosystem of multiple buyers and sellers, leading to efficient price discovery. IEX commands ~89% market share in the power exchange market. Therefore, based on high liquidity on the platform, focus on expanding the product basket, and ability to maintain a dominant position in the industry, we initiate coverage on IEX Ltd with a BUY rating and a target price of Rs. 182.

Focus on catering to consumer demands through product discovery

IEX has remained committed to expanding its product portfolio in response to the ever-evolving consumer demands. The recent additions to IEX's product offerings include GTAM, GDAM, RTM, and High Price DAM (HP DAM). The Company's constant focus on expanding its product basket has enabled it to establish a first-mover advantage. IEX is currently working on developing International Carbon Exchange and Coal Exchange, which will further enhance its product portfolio. The Company remains committed to exploring new areas and launching products that align with market requirements. IEX's success can be attributed to its ability to launch tailored products that meet customers' needs, resulting in customer stickiness reflected in the Company's continued dominant position in the market.

Undisputed leader in power exchanges

IEX holds a dominant position in India's power exchange market, with ~89% market share. The Company's impressive performance can be attributed to its efficient price discovery mechanisms, which led to an increase in trading volumes on its platform, growing at a five-year CAGR of ~18% during FY17-22.

Network effect – Winner takes it all

One of the significant advantages of IEX is liquidity, which facilitates efficient price discovery and attracts a larger number of participants, creating a network effect. Presently, IEX has 7,300+ participants from all states and union territories, providing ample liquidity to trade on the platform. This network has helped IEX develop an ecosystem of multiple buyers and sellers, leading to lower costs and guaranteed supply.

View & Valuation

The overall and short-term power market growth is anticipated to be driven by rising demand and the government's emphasis on increasing electricity penetration. IEX is expected to retain its dominant position in the short-term power market by concentrating on expanding its product portfolio and leveraging the network effect. Therefore, we initiate coverage on Indian Energy Exchange Limited with a BUY rating and determining its valuation using a median P/E multiple of 47, resulting in a target price of Rs. 182.

BUY

CMP Rs. 160

TARGET Rs. 182 (+13.5%)

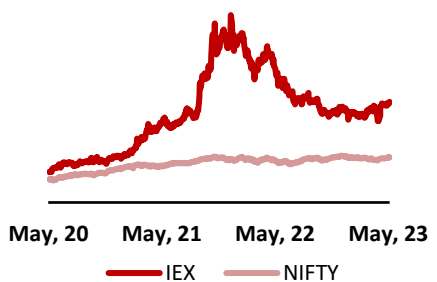
Company Data

MCAP (Rs. Mn)	1,43,077
O/S Shares (Mn)	892
52w High/Low	207 / 126
Face Value (in Rs.)	1
Liquidity (3M) (Rs. Mn)	1,049

Shareholding Pattern %

	Mar 23	Dec 22	Sept 22
Promoters	0.00	0.00	0.00
FII's	17.88	15.49	15.79
DII's	21.53	21.73	22.39
Non-Institutional	60.60	62.78	61.82

IEX vs Nifty



Source: Keynote Capitals Ltd.

Key Financial Data

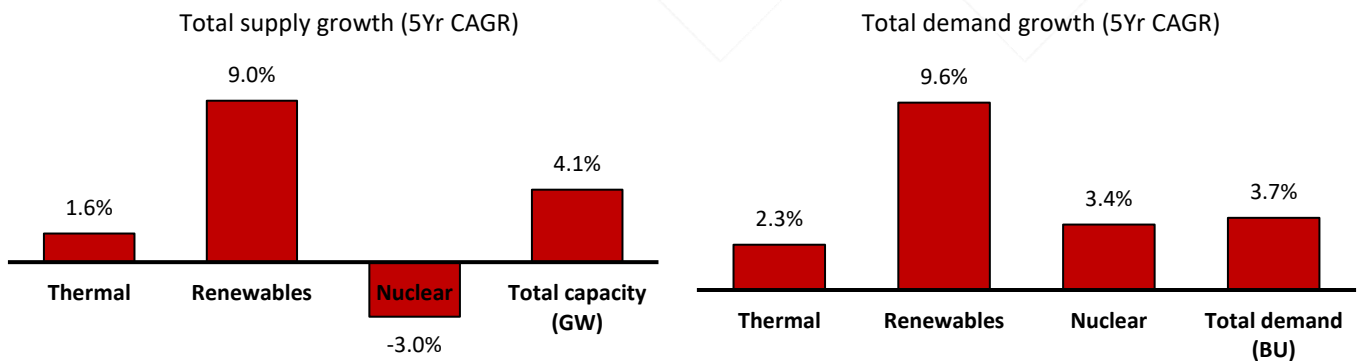
(Rs. Mn)	FY22	FY23E	FY24E
Revenue	4,310	4,066	4,675
EBITDA	3,637	3,374	3,904
Net Profit	3,080	3,031	3,479
Total Assets	16,962	14,159	16,203
ROCE (%)	49%	38%	37%
ROE (%)	50%	39%	37%

Source: Company, Keynote Capitals Ltd.

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Power Industry

India has become the third-largest electricity producer globally as a consequence of its economic growth, leading to a surge in its energy demand. This demand has been accommodated by the continual expansion of power generation capacity through various sources. Between FY17 and FY22, India's overall energy consumption increased from 1,135 Billion Units (BU) to 1,381 BU at a CAGR of 4%. By FY30, this consumption is expected to reach 2,280 BU at a CAGR of 6% between FY23-30. According to International Energy Agency, despite this increase, India's average per capita electricity consumption in FY21 was ~1,200 kWh, which is just over one-third of the global average of ~3,500 kWh, leaving considerable potential for further expansion.



Source: CERC, Company, Keynote Capitals Ltd.

Electricity growth drivers in India

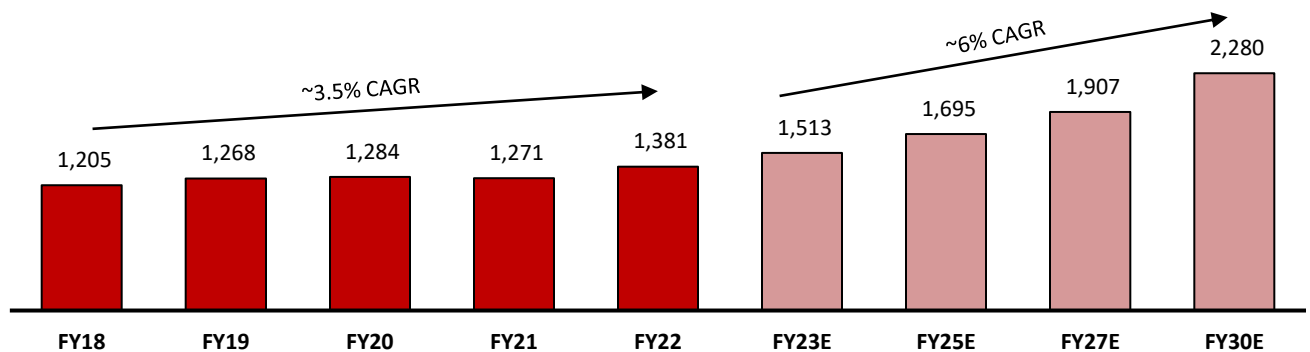
Rapid urbanization and industrialization– India's rapidly growing population and economy have led to a significant increase in demand for electricity across various sectors, particularly in urban and industrial areas. High GDP growth of about 8% is expected to increase economic activity leading to a rise in electricity consumption

Infrastructure development– The government is focusing on improving electricity infrastructure, including transmission and distribution networks, to improve access to electricity in rural areas and increase grid stability.

Government initiatives– The Indian government has launched several initiatives, including the Ujwal Discom Assurance Yojana (UDAY), Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY), National Smart Grid Mission, and the Saubhagya scheme.

- **UDAY** focuses on improving the efficiency of state-owned power Distribution Companies (Discoms).
- **DDUGJY** provides a 24x7 power supply to rural households.
- **Saubhagya Scheme** provides free electricity connections to households below the poverty line.
- **National Smart Grid Mission** focuses on modernizing India's power grid and promoting the integration of RE sources.

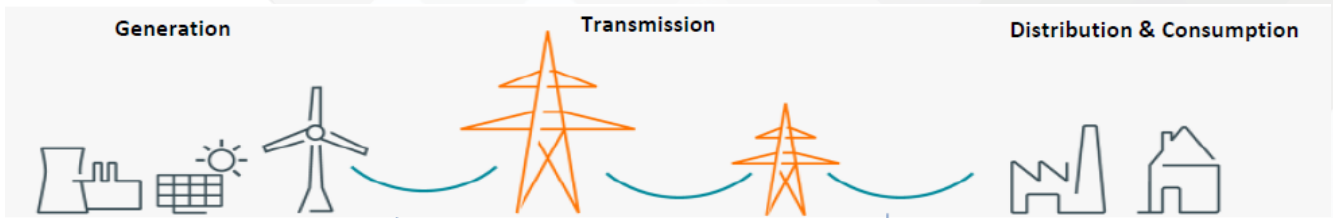
India's Total Energy Consumption (BU)



Source: CERC, Company, Keynote Capitals Ltd.

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Power industry value chain

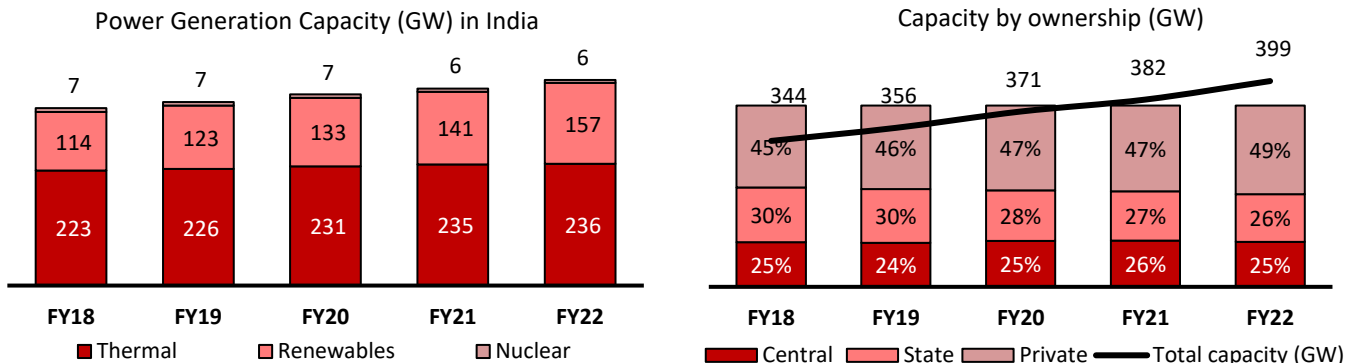


Source: Company, Keynote Capitals Ltd.

Generation

The sources of electricity generation in India can be broadly classified into conventional and non-conventional. The conventional sources include thermal (coal, lignite, natural gas, and oil), hydro, and nuclear power, whereas non-conventional power generation sources include renewable energy.

Thermal is a major source of electricity generation in India, contributing ~59% of the total capacity of generation in FY22, followed by Renewable Energy (RE) (27.5%), Hydro (11.7%), and Nuclear (1.7%). The share of thermal in the total capacity has gradually declined from 69% in FY16 to 59% in FY22. However, electricity generation from thermal (mainly coal) still contributes ~75% in FY22. The share of renewable energy in the total capacity increased from ~9% in FY09 to ~28% in FY22.



Source: Company, Keynote Capitals Ltd.

Transmission

The transmission system can be categorized as an inter-state and an intra-state. The development of an intra-state transmission system is the responsibility of state transmission utilities, while Power Grid Corporation of India Limited (PGCIL) is responsible for developing an inter-state transmission system. The Regional Load Dispatch Centre (RLDC) and National Load Dispatch Centre (NLDC) are system operators providing transmission access to the power exchanges. Currently, the Inter-state transmission capacity is 112.3 GW, and transmission lines are 4.63 Lakh CKm.

Adequate transmission capacity is a key enabler for power transactions in India. The generation capacity has increased faster than the transmission, resulting in situations where a certain demand in a market could not be met even if supply is available elsewhere. This leads to unsold capacity impacting Plant Load Factors (PLF) for thermal generation plants. Going forward, an adequate transmission corridor is an important aspect of inter-state sales as the country envisages an aggressive capacity ramp-up from renewable energy projects.

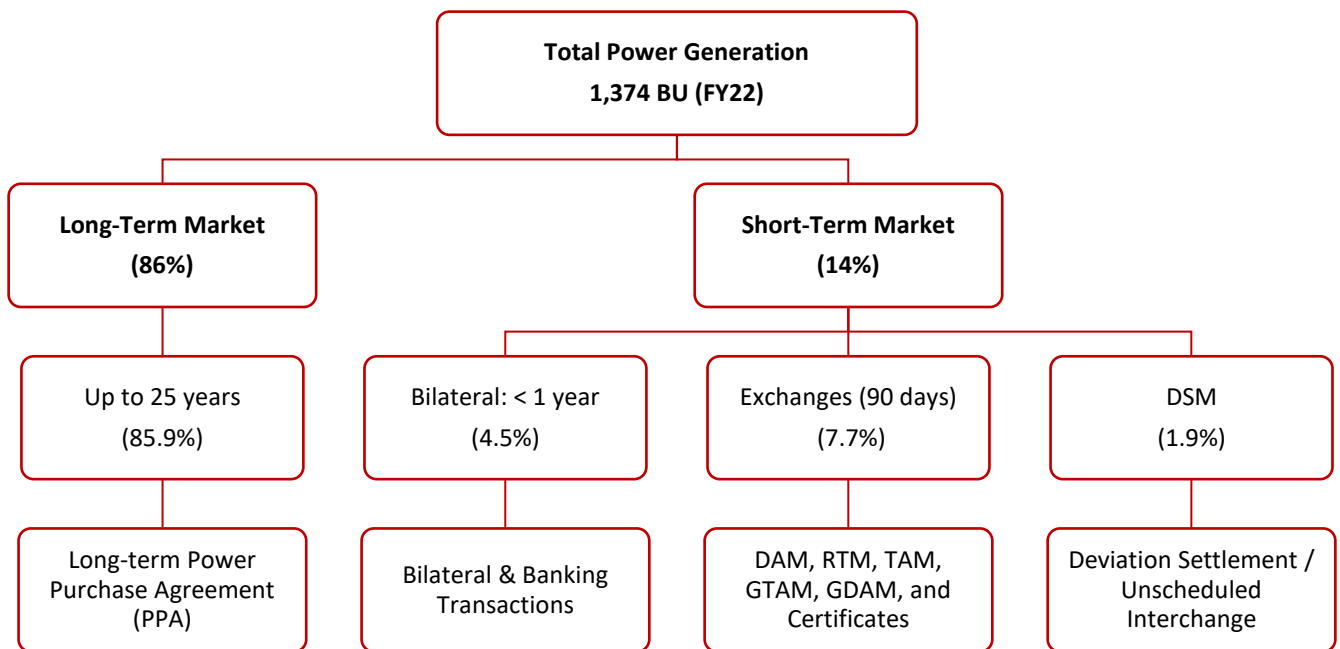
PLF is a measure of the average capacity utilization of a thermal power unit. High PLF results in higher revenues and lesser cost per unit of energy generated (kWh).

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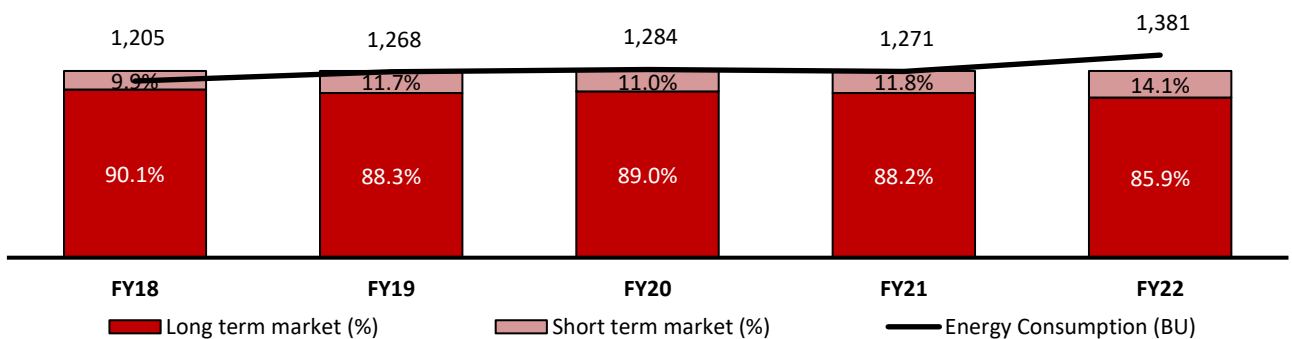
Distribution

In India, last-mile connectivity is provided by distribution companies. Distribution is the last but significant leg in the power supply chain, in which Distribution Companies (Discoms)/ State Electricity Boards (SEBs) own the majority of the share. Every state has one or more Discoms in charge of distribution. The distribution segment in India is predominantly state-owned, catering to about 90% of the energy demand in the country. The balance is catered by private distribution utilities, which meet demand in urban cities. The government is undertaking various initiatives to increase rural electrification, reduce aggregate technical and commercial (AT&C) losses incurred while distributing electricity, ensure the financial viability of Discoms, and encourage private sector participation.

In India, power distribution can be segregated into long-term markets, including contracts between Generation Companies (Gencos) and Discoms for up to 25 years, and short-term markets, including contracts for up to 1 year.



Increasing share of STM in the total energy consumption market in India (%)



Source: Company, Keynote Capitals Ltd.

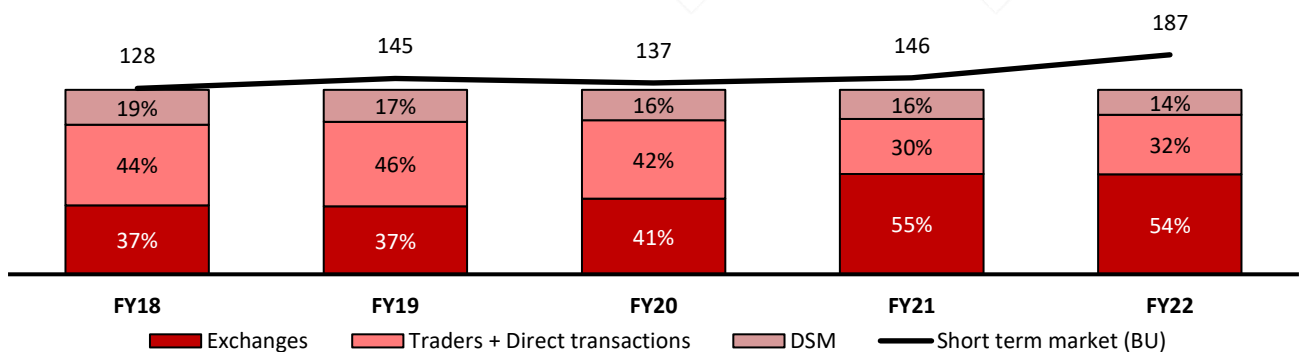
Short-Term (ST) Power Market

The short-term power market pertains to agreements with a duration of less than one year for the exchange of electricity conducted through bilateral contracts, power exchanges, and the Deviation Settlement Mechanism (DSM).

Power exchanges are platforms that enable the trading of power as a commodity among Gencos, Discoms, Traders, and Open Access consumers. Transactions can also occur through traders or bilateral trades, which are conducted via registered brokers who facilitate trades between buyers and sellers. Under bilateral trade, Discoms generally sell surplus power to others to reduce their losses. DSM is a settlement mechanism that takes into account any excess or shortfall in supply or demand carried out by Gencos and Discoms.

Open Access Consumers purchase electricity from the grid but also have the option to source their power from alternative suppliers, such as renewable energy generators or other energy service providers.

Volume Mix of ST Power Market (%)



Source: Company, Keynote Capitals Ltd.

In the past, the ST power market was primarily dominated by traders. Nevertheless, since their inception, power exchanges have rapidly evolved and gained a significant market share due to their value proposition of transparency, liquidity, and efficient price discovery. Over the last decade, spanning from FY12 to FY22, power exchanges have grown at a CAGR of ~20%, while bilateral trade has grown at a CAGR of ~2%. In contrast, DSM has experienced a decline at a CAGR of ~1%.

Power exchanges face competition within the ST power market from alternates such as the Discovery of Efficient Electricity Prices (DEEP). The government launched DEEP in 2016 to enhance price discovery and transparency in the contracted sourcing of electricity by Discoms. DEEP primarily serves as an aggregation and price discovery platform and does not function as a settlement mechanism. Buyers or sellers must individually seek transmission access after transacting on DEEP, as it does not handle transmission access.

Reasons for the increase in penetration of exchanges in India

Efficient price discovery due to liquidity – Power exchanges operate as a market mechanism wherein prices are determined based on demand-supply dynamics, leading to unbiased price discovery. Unlike bilateral contracts, where pricing is heavily influenced by the buyer's credit and the volume of power transacted, power exchanges provide transparent pricing for all participants.

Reduced transmission congestion – The volume of electricity transacted through power exchanges is sometimes limited by transmission congestion. However, over the past decade, transmission congestion has been significantly reduced from a high of 17% in FY13 to 0.09% in FY22, primarily due to the integration of transmission infrastructure.

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Lower procurement costs for Discoms – Discoms are obligated to pay fixed charges even if they do not schedule any energy from generating stations under long-term PPAs. However, power exchanges provide Discoms with flexibility in optimizing their procurement costs.

Renewable Purchase Obligations (RPO)– RPO creates a market for Renewable Energy Certificates (RECs). Entities obligated under RPO regulations can purchase RECs to meet RE targets. Furthermore, the growth of RE generation to meet RPO targets can lead to an increase in the trading volume due to an increased supply of renewable energy, leading to generators seeking to sell their excess power and obligated entities seeking to meet their RPO targets.

RECs represent 1 MWh of electricity generated from renewable energy sources. For FY23, the government has mandated that 24.6% of the total energy consumed in a Discoms area will have to be from RE sources.

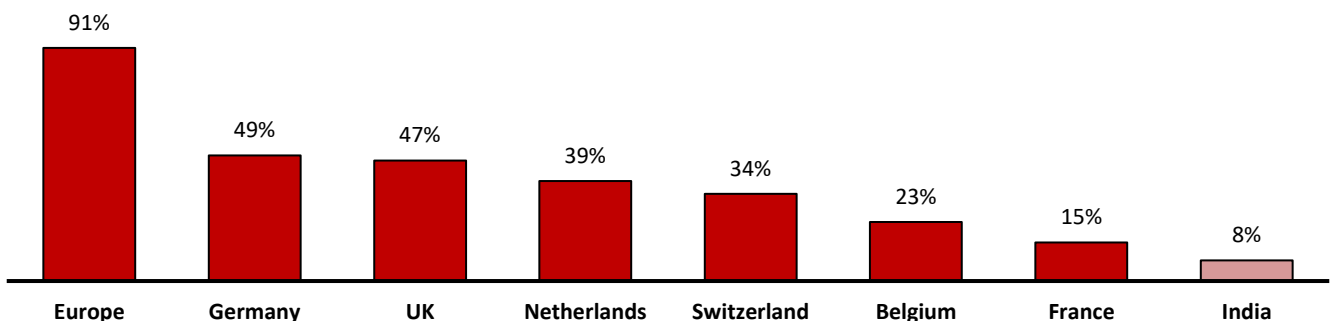
Benchmark for the derivative market – The efficient price discovery mechanism used by power exchanges can provide valuable insights into the pricing of electricity, which can help market participants manage their price risk exposure. IEX and Multi Commodity Exchange (MCX) have entered into an agreement to launch futures contracts in electricity derivatives based on the prices discovered on IEX. This move is expected to deepen the electricity derivatives market in India and provide additional hedging opportunities for market participants. The use of power exchange prices as a benchmark for derivative markets can enhance price discovery and reduce information asymmetry, ultimately leading to a more transparent power market.

Regulatory support – The Indian government has supported power exchanges and has taken steps to promote their growth. This includes regulatory measures such as allowing open access to the transmission network, promoting renewable energy, investing in transmission infrastructure, and allowing the trading of Renewable Energy Certificates (REC) on exchanges. The government of India aims to increase coal production from 780 MT (Mn Tonne) in FY22 to 1.2 BT (Bn Tonne) by FY25, which will increase the availability of coal, leading to lower electricity prices on the power exchange.

Penetration of power exchanges in India compared to developed markets

Globally, short-term markets are highly evolved in developed countries against nascent Indian markets. The primary reason for matured ST markets is the higher contribution of renewable energy and less reliance on long-term PPAs. In developed markets, ST markets are largely dominated by power exchange. In most developed countries, the contribution of power exchanges to energy consumption varies from 20-91%. Going forward, as the growth factors play out, exchanges will have a greater role to play, resulting in increased penetration in the power markets in India.

Penetration of power exchanges in developed countries (%)



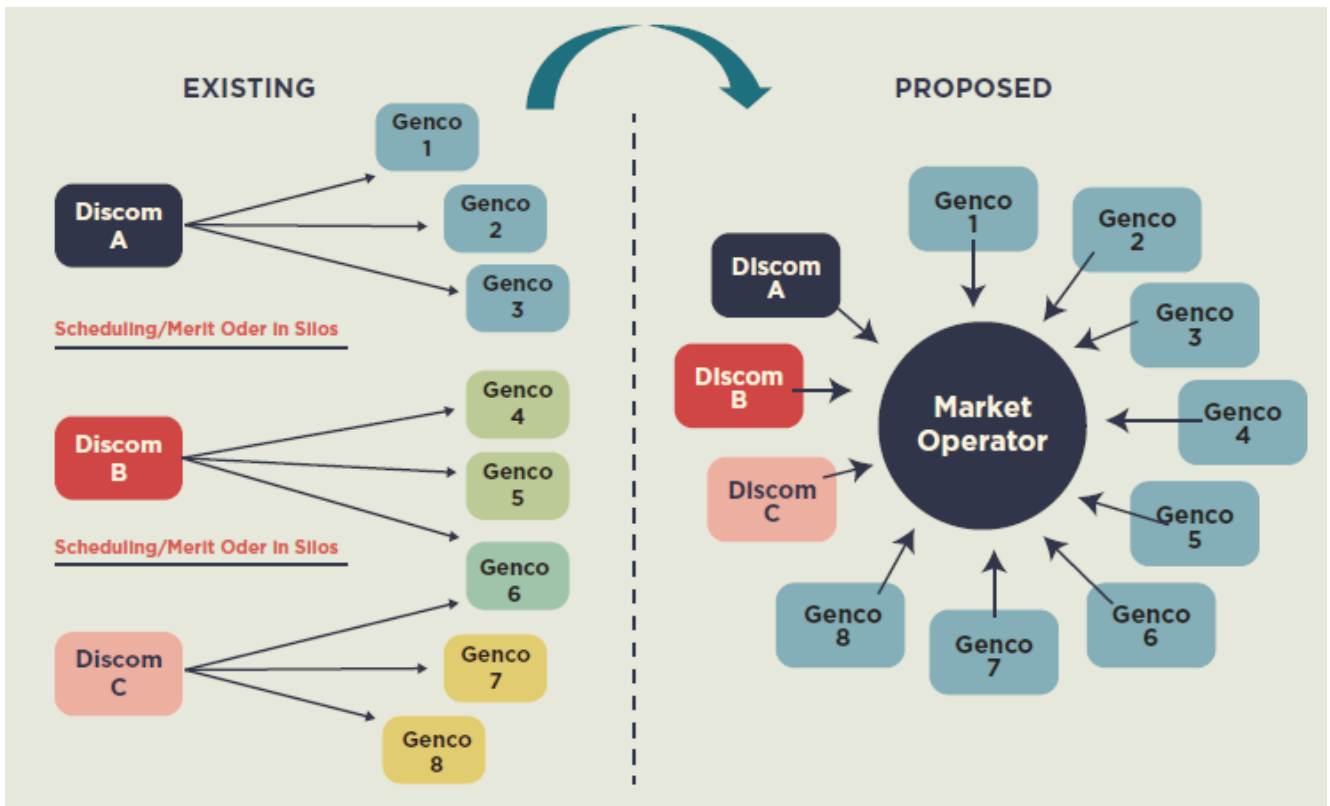
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Market-Based Economic Dispatch (MBED) and Market Coupling

In December 2018, the CERC released a draft proposal for the MBED system. The proposal outlined that, under the MBED, all power transactions would be conducted through power exchanges, including those tied up in PPAs. Instead of each Discom having its merit order individually, there would be a shared pool of all power generators to fully utilize sources traded on the exchange. The MBED would allow for pooled electricity produced by all the Gencos to be purchased by Discoms from the cheapest electricity source through the exchange, thereby reducing their costs. Furthermore, the implementation of MBED would increase the opportunity size, and volumes traded on the exchanges.

Additionally, the CERC has proposed the implementation of a Market Coupling Operation (MCO) in its Draft of Power Market Regulations 2020, which will determine the price at which electricity will be traded on all power exchanges. The MCO will club buying and selling bids on all power exchanges to facilitate better price discovery and an increased opportunity to serve more customers. Although the market coupling has been introduced, the timeline for its implementation has yet to be determined. This introduces a potential drawback, as it may nullify the advantage of liquidity on the platform. Therefore, the market share between power exchanges will be determined by product offerings and technological services.

Framework of MBED



Source: Company, Keynote Capitals Ltd.

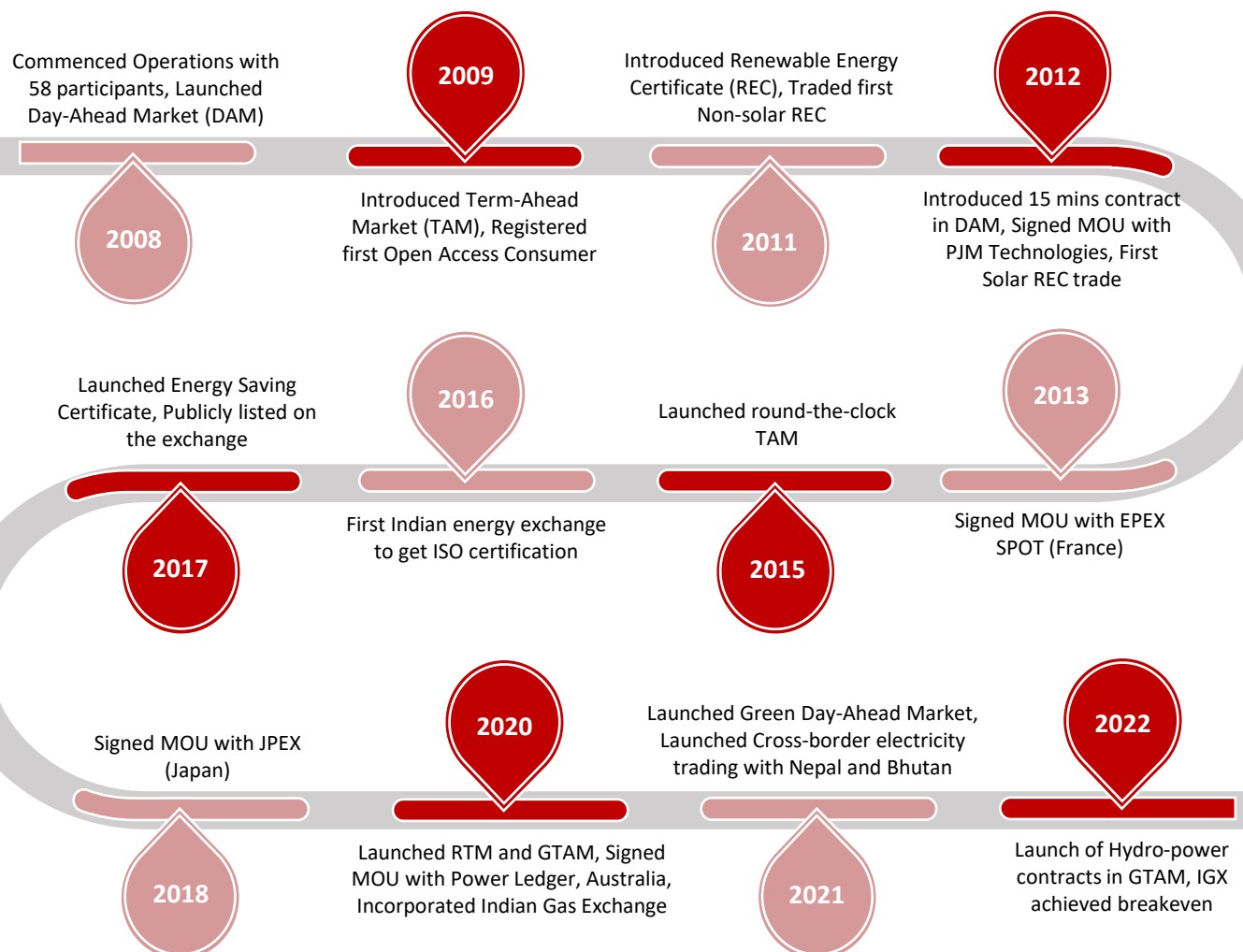
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Company background

Incorporated in 2008, Indian Energy Exchange Limited (IEX) is India's premier energy marketplace, which is approved and regulated by the Central Electricity Regulatory Commission (CERC) and provides nationwide automated power trading. The platform leverages technology to provide solutions for sustainable energy, ensuring competitive, transparent, and reliable access. The Company offers various instruments in the electricity market, such as DAM, TAM, RTM, green market instruments such as GTAM and GDAM, and Certificates such as REC and ESCerts.

The exchange enlists more than 7,300 participants across all states and union territories. This includes 55+ distribution companies, 600+ electricity generators, and 4,400+ open-access customers. Over the years, IEX has created a network of multiple buyers and sellers, ensuring ample liquidity and market competition, leading to efficient price discovery. The diverse participant mix, updated product offering, liquidity, and efficient price discovery has made IEX a market leader in the power exchange market, with a market share of ~89% of FY23.

Milestones in the journey of IEX Ltd



Source: Company, Keynote Capitals Ltd.

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Product Offerings

IEX promotes price discovery via trades in a variety of electricity products. Its key offerings are

Day-Ahead Market (DAM) <i>Since June 2008, ~100% market share</i>	<ul style="list-style-type: none"> • Delivery for the next day • Price discovery: Closed, Double-sided auction • 15-minute contracts, Traded daily
Term-Ahead Market (TAM) <i>Since September 2009, ~49% market share</i>	<ul style="list-style-type: none"> • Any day single-side reverse auction • Daily (up to 14 days), Weekly (up to 12 weeks), Monthly (up to 3 months – since June 2022)
Renewable Energy Certificates (REC) <i>Since February 2011, ~72% market share*</i>	<ul style="list-style-type: none"> • Green Attributes as Certificates • Sellers: RE generators not under feed-in tariffs • Buyers: Obligated entities, 1MWh equivalent to 1 REC
Intraday market & Contingency market <i>Since July 2015</i>	<ul style="list-style-type: none"> • Intraday: 15-minute contracts on the same day on a rolling basis • Day-Ahead Contingency (DAC): 24 hourly and/or 15-minute contracts on a day-ahead basis
Energy Saving Certificates (ESCCerts) <i>Since September 2017, ~95% market share*</i>	<ul style="list-style-type: none"> • 1 ESCert = 1 Mtoe (Metric Tonne Oil Equivalent) • Trading session every Tuesday from 1 to 3 pm
Real-Time Market (RTM) <i>Since June 2020, 100% market share</i>	<ul style="list-style-type: none"> • Half-hourly market (48 times a day) • Delivery for 30 minutes in two-time blocks of 15 minutes each • Double-sided closed auction with uniform price
Green Term-Ahead Market (GTAM) <i>Since August 2020, market share#</i>	<ul style="list-style-type: none"> • 15-minute quotation of quantity and price • Price discovery and matching on a continuous basis • Revision in the schedule is not allowed
Green Day-Ahead Market (GDAM) <i>Since October 2021, market share#</i>	<ul style="list-style-type: none"> • Same as DAM, but with priority for price and volume discovery with an option to carry forward uncleared bids to DAM • Single price for different RE – solar, non-solar

Note: Market share as of Q3 FY23

* Market share as of FY22, # Combined market share for both Green products is 85% as of Q3 FY23

Source: Company, Keynote Capitals Ltd.

Day-Ahead Market (DAM) trading commenced in June 2008. DAM contracts of 15-minute blocks each for the subsequent day commencing at midnight. Participants can participate in a uniform-price double-sided closed auction process that determines the prices and quantum of electricity traded.

Term-Ahead Market (TAM) trading commenced in September 2009. TAM includes products such as Intraday, Day-Ahead Contingency (DAC), and daily, weekly, & monthly contracts. It enables participants to trade electricity for the same day through intraday contracts, for the next day through DAC contracts, daily for rolling seven days through daily contracts, weekly through weekly contracts, and up to 3 months through monthly contracts.

Renewable Energy Certificates (REC) trading commenced in February 2011. REC represents the green attributes of electricity generated from renewable resources, solar and non-solar. One certificate represents 1 MWh of renewable energy generated. The obligated entities purchase REC to fulfill their Renewable Purchase Obligation.

Energy Saving Certificates (ESCCerts) trading commenced in September 2017. An ESCert is a market-based instrument created under the Perform Achieve Trade (PAT) for consumers in energy-intensive industries such as aluminum, cement, distribution utilities, railways, fertilizers, etc. The consumers are assigned energy consumption targets for which ESCerts are issued based on performance against these targets by the MoP and can be traded on an exchange or used for the next compliance period. Consumers exceeding their targets have to buy ESCerts to offset the shortfall.

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Real-Time Market (RTM) trading commenced in June 2020. RTM allows generators to sell their excess capacity reducing dependency on the DSM and enabling efficient use of capacity. RTM features 48 auction sessions every half an hour, with power delivered an hour after the gate closure. A double-sided closed auction bidding determines the price and quantum of electricity trading.

Green Term-Ahead Market (GTAM) trading commenced in August 2020 following the CERC approval. GTAM is a market segment for trading in delivery-based renewable energy featuring intraday, DAC, daily, and weekly contracts, separate for solar and non-solar energy.

Green Day-Ahead Market (GDAM) trading commenced in October 2021. The market segment features anonymous and double-sided closed collective auctions in renewable energy on a Day-Ahead basis. The Exchange invites bids for conventional and renewable in an integrated way through separate bidding windows and prices discovered for renewable and conventional power.

Cross-Border Electricity Trade (CBET) commenced trading in April 2021 with the participation. CBET is an endeavor toward building an integrated South Asian Power Market, including countries such as Nepal, Bhutan, and Bangladesh, to participate in DAM and TAM on the exchanges. Subsequently, as the grid connectivity extends to other south countries, the market will expand further.

High Price Day Ahead Market (HP-DAM) trading commenced after CERC approved its integration to DAM on 16th February 2023. HP-DAM will feature a selling market to the high variable cost existing price ceiling of Rs. 12/kWh. CERC has currently permitted gas-based generating generators, which may not have been able to participate in DAM due to the stations using imported RLNG and naphtha, generators using only imported coal, and Battery Energy Storage Systems (BESS) to sell on HP-DAM. CERC will undertake periodic reviews of the upper price limit based on the highest cost of generation and other domestic and global factors, including its impact on other markets.

International Carbon Exchange (ICX)

In Q3 FY23, IEX incorporated a wholly owned subsidiary, ICX, to leverage opportunities in the carbon market, for which it is closely working with agencies like the Bureau of Energy Efficiency (BEE), major carbon exchanges, and potential players in this space. ICX will enable participants to buy and sell voluntary carbon credits at competitive prices through its transparent & reliable Exchange platform, helping large corporates meet their ESG requirements. By facilitating the companies to meet their climate commitments goals, ICX will help India achieve its target of reducing the carbon emission of its GDP by 45% by 2030 to limit global warming to 1.5 degrees Celsius.

Presently, ~500 Mn units of carbon credits are traded globally. Based on a study by McKinsey, by 2030, this is expected to reach 1,500- 2,000 Mn units in trading volume. India is expected to sell ~200 Mn carbon credits, with demand from Indian corporations expected to be ~120-130 Mn units by 2030.

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Transaction process of a DAM contract

Bid accumulation

- Participants submit their bid on the exchange to purchase/sell electricity for the day ahead.

Bid matching

- Bids are matched on the exchange, and each contract's provisional price and volume are determined. A requisition for capacity allocation is sent to the National Load Dispatch Center (NLDC) to ensure the relevant grid has the capacity for the planned transmission.

Review the availability of funds and grid capacity

- The settlement accounts of purchase bidders are checked to ensure the funds for the contract. Exchange receives confirmation of available transmission capacity from the NLDC.

Finalization of Electricity contract terms

- Each contract's final price and volume is determined considering transmission capacity availability.

Confirmation

- The final requisition file is sent to NLDC. Payment instructions are sent to purchasers clearing banks for pay-in. The NLDC confirms the accepted electricity dispatch scheduled with the platform.

Scheduling

- The Regional Load Dispatch Centre (RLDC) incorporates the schedule of collective transactions in the respective regional entity. On the next day of delivery, funds payments are sent to suppliers clearing banks for pay-out. On the next day of trade, transmission charges are paid to the transmission operators.

Source: Company, Keynote Capitals Ltd.

Participants

Besides promoting price discovery through various instruments, IEX also eases access to participants. Participants trade on IEX directly as registered members or clients through registered members. The Company's customer base is dispersed throughout India and primarily comprises utility companies, private and government-owned power generators, renewable energy generators, and commercial & industrial customers. The exchange enlists more than 7,352 registered participants across all states and union territories. This includes 57 Discoms, 626 Gencos, 4,645 industrial participants, 1,810 Renewable Energy Generators & Obligated entities, and 171 ESCert Entities as of FY22.

The eligible participants on the platform can be divided as

Eligible participants	Role
Proprietary Members	A grid-connected entity that can trade on its own account and clear the same contracts as a clearing member. A proprietary member under the full payment option pays higher subscription fees and lower transaction fees, whereas a proprietary member under the light payment option pays lower subscription fees and higher transaction fees.
Trader Members	An entity holding a valid 'Interstate Trading License' issued by the CERC. They are eligible to trade and clear on their own account and on behalf of their clients.
Professional Members	An entity that is neither a Proprietary nor a Trader member and is not entitled to trade on its account but can act on behalf of its clients. They are not eligible to settle and clear contracts in exchange for such clients.

Source: Company, Keynote Capitals Ltd.

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There are two types of sellers on the platform, Discoms and Gencos. The Discoms sell power if there is excess after supplying it to their PPA obligations, depending on the clearing prices of the exchange. In FY22, the contribution from distribution companies was more than 50%. The Gencos also trade on the exchange; however, their supply depends on coal prices. The generating companies only sell when the clearing prices are feasible for the production and ongoing coal prices. As the coal prices increase, the Gencos start selling at a higher price leading to higher clearing prices on the exchange resulting in a decline in clearing volume.

On the other hand, when the clearing prices increase, open-access consumers decrease their purchasing demand. On the contrary, their demand requirements increase drastically to take advantage of the arbitrage opportunity when the clearing prices generally go below Rs. 3 per unit. In H2 FY23, the contribution from open-access customers fell drastically due to a shoot-up in coal prices, which increased the clearing prices.

Some of the top participants on the platform

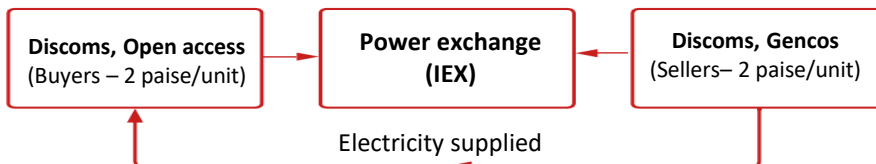


Source: Company, Keynote Capitals Ltd.

Sources of revenue

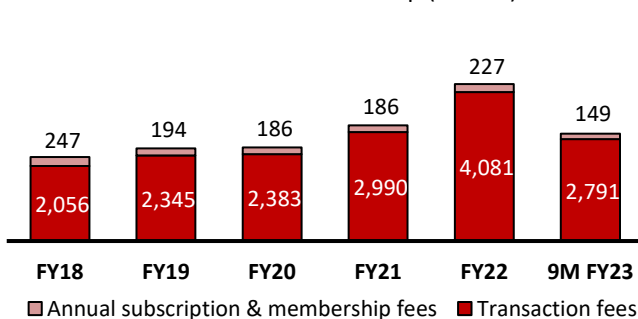
IEX is a platform where buyers and sellers only transact electricity like any other exchange. The revenue streams for the Company can be divided as Revenue from Transaction fees and Annual subscription fees. Transaction fees by IEX are earned by charging 2 paise each from buyer & seller per unit (unit=Kilo Watt Hour) transaction.

Revenue Model

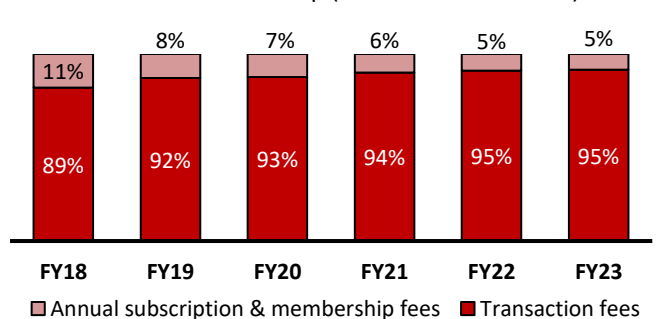


Source: Company, Keynote Capitals Ltd.

Revenue break up (Rs. Mn)



Revenue break up (as a % of overall sales)



Source: Company, Keynote Capitals Ltd.

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Fees structure for membership on the platform

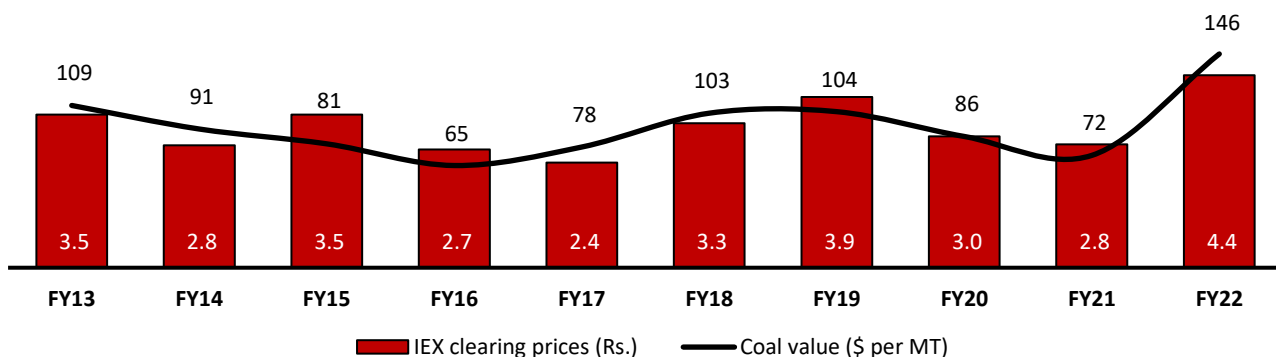
Particulars (Rs. Lacs)	Electricity	REC	ESCerts
Eligible for trading	Electricity + REC + ESCerts	REC + ESCerts	ESCerts
Admission fee	35	10	5
Security deposit	25	5	2.5
Processing fee	0.1	0.1	0.1
Annual subscription fee	5	2	1 (per PAT cycle)
IEX Transaction Fee (Rs. per MWh /REC /ESCerts)	20	20	20
Annual Client / Portfolio subscription fee	1	0.2	0.20 (per PAT cycle)
Required net worth to participate	150	50	50

PAT cycle is a regulatory instrument to reduce Specific Energy Consumption (SEC) in energy-intensive industries and is for a duration of three years

Source: Company, Keynote Capitals Ltd.

Clearing price and volume

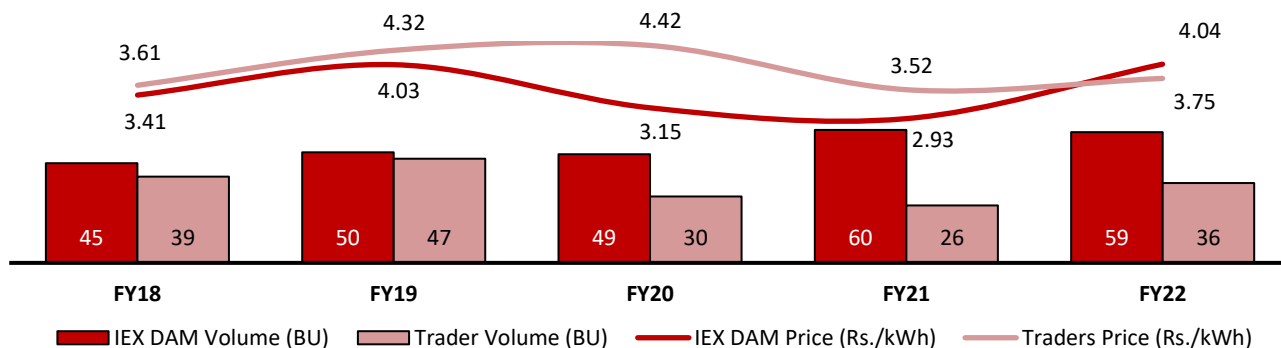
The Company earns revenue through price and volume. The clearing volumes on the platform are directly affected by the clearing prices derived through price discovery. Clearing prices are affected by an increase in the domestic and export market coal prices.



Note: Coal value is the average import and export of coal value

Source: Coal.gov, Company, Keynote Capitals Ltd.

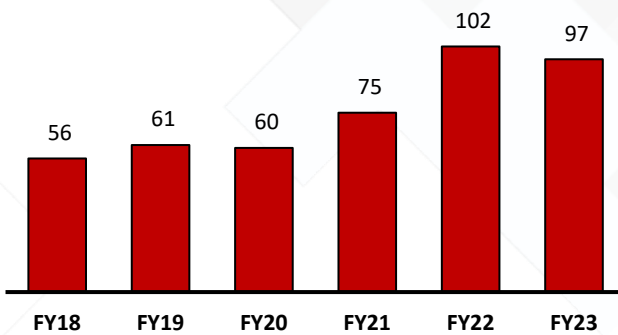
The share of IEX in the short-term market and the volume traded have been increasing over the years. One of the reasons for this is that the exchange prices have been comparatively lower than the bilateral contract prices of traders.



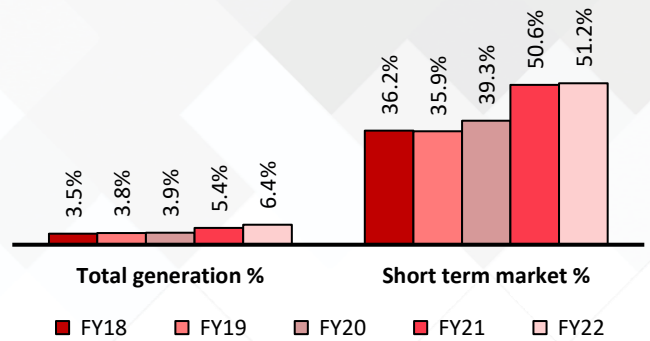
Source: Company, Keynote Capitals Ltd.

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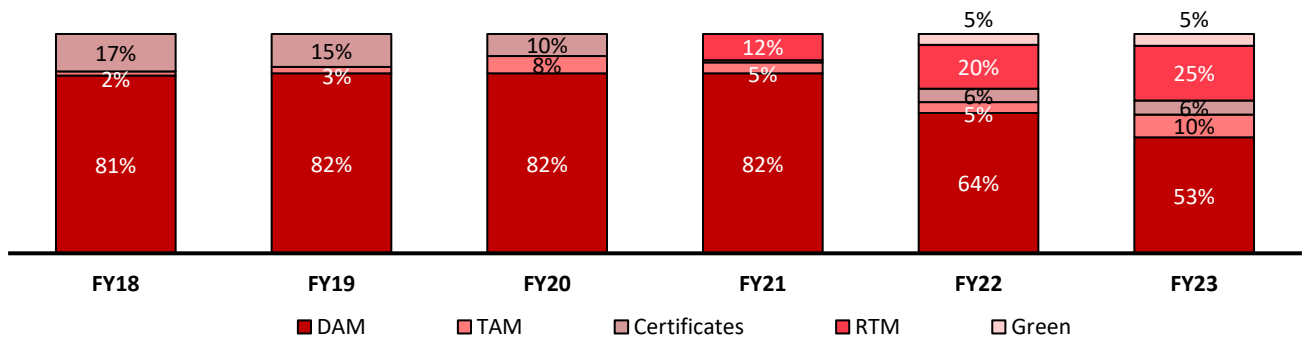
Overall IEX volume (BU)



Market share of IEX (%)



Volume split (%)



Source: Company, Keynote Capitals Ltd.

The total volume traded on the platform has grown at a five-year CAGR of 12%. However, price discovery is not the only reason for volume growth. IEX acts as a mediator helping the buyers and sellers during contingency by continuously launching new products and offering a complete product basket electricity exchange. For instance, to solve the issue of Discoms facing high power purchase costs and manage the demand-supply balance, IEX launched RTM in June 2020. It enables Discoms to procure electricity at short notice of one hour before power delivery, helping reduce their procurement costs. This resulted in IEX gaining 100% market share and an increase in contribution from RTM of up to ~25% of total volumes traded as of FY23. The Company also offers Green products to address the growing importance of the renewable energy segment in India.

Moreover, the increase in members has resulted in higher liquidity on the exchange, leading to efficient price discovery and higher participation led by the network effect. The Company has more than doubled the participants on the platform from 3,000+ in FY13 to 7,200+ in FY22. Due to continuous focus on technology and product launches, customers have become stickier, resulting in ~89% market share of the Company.

Indian Gas Exchange (IGX)

IGX is India's first authorized Gas exchange offering a nationwide automated trading platform for the physical delivery of Natural Gas. IEX received approval to launch IGX from Petroleum and Natural Gas Regulatory Board (PNGRB) in December 2020 to operate as Gas Exchange. IGX's launch aligns with the Government's ambition to increase the share of natural gas from ~6% in 2022 to 15% by 2030.

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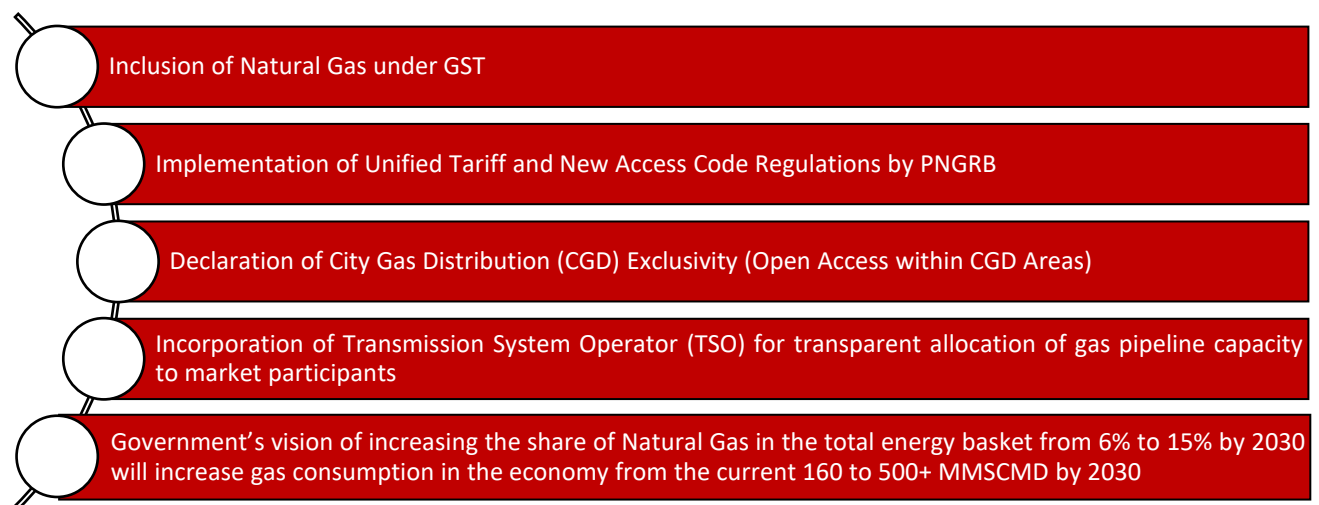
The exchange features multiple buyers and sellers to trade spot and forward contracts enabling efficient and competitive discovery of gas prices. IGX runs physical contracts for spot, i.e., Day-Ahead and forwards up to 3 months, and facilitates financial settlement and delivery for all contracts. It offers trade across five physical hubs at Hazira and Dahej in Gujarat, KG Basin in Andhra Pradesh, and Dabhol & Jaigarh in Maharashtra.

Companies purchasing or selling gas connected to a main natural gas pipeline can participate in trading on IGX. Gas-consuming companies from sectors such as fertilizers, CGD entities, glass, ceramics, steel, chemicals, and refinery, among others, can operate as consumers, and domestic gas producers and LNG marketers as sellers.

IGX has a robust ecosystem of 37 members and 120+ active clients as of Q3 FY23, which includes prominent industry players such as GAIL, GSPC, Petronet LNG, BPCL, IOCL, IGL, MGL, ONGC, Indian Oil, Adani Gas, Torrent Gas, AMNS, Adani Total, H Energy, among others.

In Q3 FY23, IGX launched GIXI – the first-ever nationwide price index to reflect benchmark natural gas prices for India. GIXI acts as the benchmark price reference for the gas sector in India that will reflect the spot prices for natural gas within a specific region. GIXI represents the volume-weighted average price for all gas traded (excluding domestic ceiling price gas), which helps market participants hedge against future volatility and make suitable decisions.

Key gas exchange enablers for IGX



Source: Company, Keynote Capitals Ltd.

IGX ceased being the subsidiary and became an associate company of IEX in January 2022 when the Company divested some of its stake to Indian Oil. IEX has done a set of strategic divestments of equity holdings to NSE, GAIL, Indian Oil, ONGC, Torrent Gas, and Adani Total to merge the synergies to support IGX backed by the development of gas markets in India.

The natural gas sector is supported by tailwinds from resilient demand from City Gas Distribution (CGD) networks and rising domestic production. The price advantage of natural gas against other fuels, the operationalization of new CGD networks, and the increased adoption of NG to comply with pollution norms would support long-term gas demand. Infrastructure in terms of LNG terminals and NG pipelines is also getting unlocked, further supporting gas demand.

IGX strategic partners



Source: Company, Keynote Capitals Ltd.

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Management Analysis

Key Managerial Personnel

Name	Designation	Qualification	With Company since
Satyanarayan Goel	Chairman & Managing Director	MBA, B.TECH	2021
Vineet Harlalka	CFO & CS	CA, CS	2010
Rohit Bajaj	Head - Business Development, Regulatory Affairs & Strategy	PGDBM, B.E	2014
Amit Kumar	Head - Market Operations & New Product Initiatives	MBA, B.TECH	2018
Sangh Gautam	Chief Technology Officer	MSc, B.E	2019
Indranil Chatterjee	Vice President (Strategy)	MBA, B.E	2016
Ravi Kiran Kuchi	Vice President (Business Development)	B Tech, PG in Management (Finance & Strategy)	2020
Mithun Manjnath Nayak	Vice President (Exchange Technology)	B.E. (Electronic), and PG in Management (Finance)	2021

Source: Company, Keynote Capitals Ltd.

IEX is a professionally managed Company. The management team is led by Chairman and Managing Director Satyanarayan Goel, who has over 38 years of experience in the power industry. The top management of IEX is highly experienced, with all the members having more than 20 years of relevant experience.

Holdings and Remuneration

Particulars	FY20	FY21	FY22	FY23
FII's and DII's holdings (%)	63.3	64.7	46.6	39.4
Senior Management Salary (Rs. Mn)	60	65	86	N/A
Senior Management Salary as a % of PAT	3.4%	3.2%	2.8%	

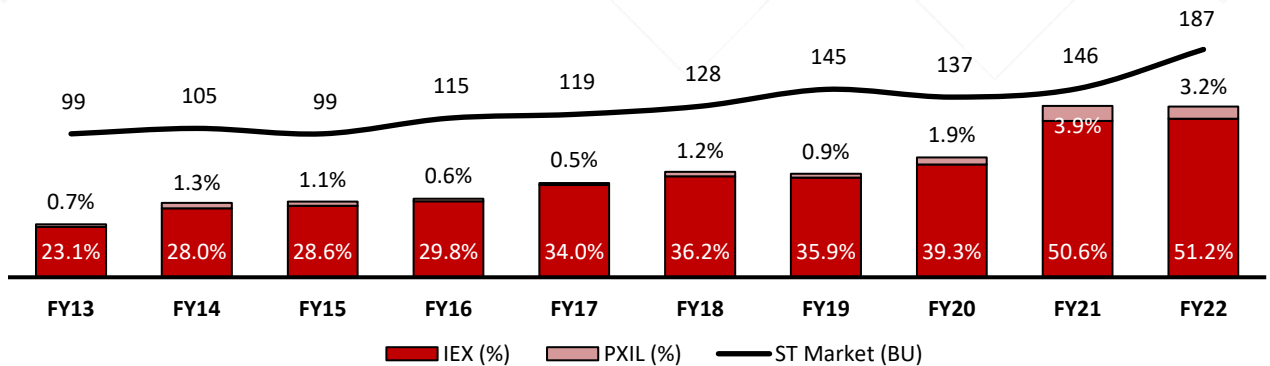
Source: Company, Keynote Capitals Ltd.

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Peer Analysis

Previously, the power exchange market in India was characterized by a duopoly structure that was dominated by two major players, namely IEX and Power Exchange India Limited (PXIL). These two entities commenced their respective business operations within months of each other in 2008. Nonetheless, IEX emerged as the market leader owing to its sustained emphasis on product innovation and liquidity, which resulted in transparent price discovery mechanisms. In July 2022, the Hindustan Power Exchange (HPX) commenced its operations as the third exchange in this market.

Peers Market share % (DAM + TAM)



Source: Company, Keynote Capitals Ltd.

Despite maintaining its dominance in the DAM and RTM, which are IEX's core focus areas, the Company's overall market share has experienced a decline from ~95% in the FY22 to ~89% in the FY23. The emergence of the new exchange is expected to have a significant impact on IEX, making it a crucial area of focus for monitoring in the future.

Opportunities

Focus on catering to consumer demands through product discovery

From its inception, IEX has been dedicated to expanding its product offerings in response to consumer demand. Among the products IEX has recently introduced are GTAM, GDAM, RTM, and HP DAM. The Company has recently introduced TAM contracts of up to 90 days and a Gas Exchange. The Company focuses on products tailored to the customer needs, which gives the first mover advantage to the Company. At present, IEX is engaged in the development of new products, namely the International Carbon Exchange and Coal Exchange. Additionally, the Indian government is taking proactive measures to establish a compliance Carbon Market in the country. To achieve this objective, IEX is collaborating closely with agencies such as the BEE and other international Carbon Exchanges. The Company is committed to continually exploring new areas and launching products that align with market requirements. The Company's ability to launch products tailored to meet customers' needs has disrupted the electricity exchange market, positioning IEX as a one-stop solution for electricity exchange needs. This has resulted in consumer stickiness, reflected in IEX's market share. The Company is expected to retain its position as a market leader due to its continued focus on expanding its product portfolio and ensuring adequate liquidity on the platform.

Undisputed leader in power exchanges

In India's power exchange market, IEX is a dominant player, with a market share of ~89%. The Company's journey in this industry started in 2008 when it commenced operations alongside PXIL. However, IEX has more than doubled its market share in the short-term power market segment from ~23% in FY13 to ~51% in FY22. This commendable feat can be attributed to the Company's efficient price discovery mechanisms, which increased trading volumes on its platform. Over the last five years (between FY17 and FY22), IEX achieved a CAGR of ~18% in trading volumes.

Network effect – Winner takes it all

IEX's high liquidity is one of its major advantages in the power exchange market. The exchange's high liquidity leads to efficient price discovery, which, in turn, attracts a greater number of participants, creating a virtuous cycle and a self-fuelling network effect. Currently, IEX has 7,300+ participants from all states and union territories, including 55+ distribution companies, 600+ electricity generators, and 4,400+ open-access customers. The diverse range of participants leads to increased liquidity in both demand and supply. IEX's strong execution track record has enabled it to enjoy the first-mover advantage and strong brand recognition. Over the years, IEX has created an ecosystem of multiple buyers and sellers, ensuring ample liquidity and market competition, resulting in lower costs and assured supply.

Challenges

Regulatory risk

In India, IEX operates under the regulatory oversight of CERC, which is a prominent authority in the power sector. The CERC has the authority to introduce regulations that may impact the Company's profitability. Furthermore, any revision in per-unit charges by the exchanges necessitates CERC's approval. IEX generates the majority of its revenue from transaction fees, with each party charged 2 paise, a fee also sanctioned by the CERC. However, it is possible that the CERC may request exchanges to reduce prices in the future, which may affect the revenue and profitability of the Company. Moreover, the players have to take regulatory permissions from the operator to launch any new product. Any delay in permission for product launch may derail the Company's growth momentum.

Implementation of market coupling

The CERC proposed the concept of Market Coupling, which aims to consolidate buying and selling bids on all power exchanges to enable better price discovery. As Discoms engage in trading on exchanges to discover better prices, they will now be able to shift to either exchange as the price will be common. For instance, a buyer from IEX can purchase electricity from a seller on PXIL. If the market coupling is implemented, liquidity will no longer be an advantage for IEX, as the matching of orders will occur at a common liquidity pool at the market coupling operator, regardless of where the buyer or seller places their order.

Competition risk

The Indian power exchange market has been dominated by two major players, IEX and PXIL, in the past. However, a new entrant HPX, has recently entered the market in July 2022. HPX is a joint venture of PTC India, ICICI Bank, and BSE. Of significance, PTC India was previously a member of IEX, but now it is supporting HPX. Currently, HPX offers electricity trades in various categories, including Contingency Contracts, Green Contingency Contracts, TAM, RECs, and ESCerts. In the near future, HPX plans to expand into other product categories, such as DAM, G-DAM, and RTM. Thus, the entry of HPX has intensified the competition in the power exchange market, and IEX may face competitive pressure in these product categories going forward.

Financial Statement Analysis

Income Statement

Y/E Mar, Rs. Mn	FY21	FY22	FY23E	FY24E	FY25E
Net Sales	3,179	4,310	4,066	4,675	5,377
Growth %		36%	-6%	15%	15%
Employee Expenses	444	418	366	421	484
Other Expenses	228	256	325	351	403
EBITDA	2,506	3,637	3,374	3,904	4,490
Growth %		45%	-7%	16%	15%
Margin%	79%	84%	83%	84%	84%
Depreciation	165	172	185	224	271
EBIT	2,341	3,464	3,190	3,680	4,219
Growth %		48%	-8%	15%	15%
Margin%	74%	80%	78%	79%	78%
Interest Paid	21	20	21	21	21
Other Income & exceptional	384	593	740	820	900
PBT	2,704	4,038	3,908	4,478	5,097
Tax	650	966	977	1,120	1,274
PAT	2,054	3,072	2,931	3,359	3,823
Others (Minorities, Associates)	-7	8	100	120	144
Net Profit	2,048	3,080	3,031	3,479	3,967
Growth %		50%	-2%	15%	14%
Shares (Mn)	299.6	898.7	898.7	898.7	898.7
EPS	2.30	3.44	3.37	3.87	4.41

Balance Sheet

Y/E Mar, Rs. Mn	FY21	FY22	FY23E	FY24E	FY25E
Cash, Cash equivalents & Bank	1,039	2,326	653	2,234	4,151
Current Investments	6,006	11,420	10,420	10,420	10,420
Debtors	32	874	244	281	323
Inventory	0	0	0	0	0
Short Term Loans & Advances	110	88	88	88	88
Other Current Assets	182	24	24	24	24
Total Current Assets	7,369	14,732	11,429	13,047	15,006
Net Block & CWIP	1,216	1,099	1,524	1,860	2,127
Long Term Investments	1,122	1,061	1,136	1,226	1,334
Other Non-current Assets	111	70	70	70	70
Total Assets	9,818	16,962	14,159	16,203	18,537
Creditors	1,659	6,352	2,033	2,338	2,688
Provision	43	39	39	39	39
Short Term Borrowings	0	0	0	0	0
Other Current Liabilities	2,120	3,147	3,147	3,147	3,147
Total Current Liabilities	3,823	9,537	5,218	5,523	5,874
Long Term Debt	0	0	0	0	0
Deferred Tax Liabilities	236	223	223	223	223
Other Long Term Liabilities	201	168	168	168	168
Total Non Current Liabilities	437	391	391	391	391
Paid-up Capital	299	898	898	898	898
Reserves & Surplus	4,963	6,136	7,652	9,391	11,375
Shareholders' Equity	5,261	7,034	8,550	10,289	12,273
Non Controlling Interest	297	0	0	0	0
Total Equity & Liabilities	9,818	16,962	14,159	16,203	18,537

Source: Company, Keynote Capitals Ltd. estimates

Cash Flow Statement

Y/E Mar, Rs. Mn	FY21	FY22	FY23E	FY24E	FY25E
Pre-tax profit	2,704	4,038	3,908	4,478	5,097
Adjustments	-188	-282	-474	-515	-548
Change in Working Capital	1,196	4,885	-3,689	268	309
Total Tax Paid	-649	-1,033	-977	-1,120	-1,274
Cash flow from operating Activities	3,064	7,609	-1,232	3,113	3,584
Net Capital Expenditure	-210	-111	-610	-561	-538
Change in investments	-1,766	-4,477	1,000	0	0
Other investing activities	15	103	705	790	876
Cash flow from investing activities	-1,961	-4,484	1,095	229	338
Equity raised / (repaid)	0	0	0	0	0
Debt raised / (repaid)	0	0	0	0	0
Dividend (incl. tax)	-747	-1,345	-1,516	-1,739	-1,983
Other financing activities	-24	-12	-21	-21	-21
Cash flow from financing activities	-771	-1,358	-1,537	-1,760	-2,005
Net Change in cash	332	1,767	-1,673	1,581	1,917

Valuation Ratios

Particulars	FY21	FY22	FY23E	FY24E	FY25E
Per Share Data					
EPS	2	3	3	4	4
Growth %		50%	-2%	15%	14%
Book Value Per Share	18	8	10	11	14
Return Ratios					
Return on Assets (%)	25%	23%	19%	23%	23%
Return on Equity (%)	45%	50%	39%	37%	35%
Return on Capital Employed (%)	45%	49%	38%	37%	35%
Turnover Ratios					
Asset Turnover (x)	0.4	0.3	0.3	0.3	0.3
Sales / Gross Block (x)	1.9	2.5	2.0	1.8	1.7
Liquidity Ratios					
Current Ratio (x)	1.9	1.5	2.2	2.4	2.6
Interest Coverage Ratio (x)	132.6	202.4	183.3	210.3	239.6
Total Debt to Equity	0.0	0.0	0.0	0.0	0.0
Net Debt to Equity	-0.2	-0.3	-0.1	-0.2	-0.3
Valuation					
PE (x)	48.2	65.2	46.2	40.3	35.3
Earnings Yield (%)	2%	2%	2%	2%	3%
Price to Sales (x)	31.4	46.8	34.2	29.7	25.9
Price to Book (x)	18.9	28.7	16.3	13.5	11.3
EV/EBITDA (x)	39.4	54.9	40.5	35.0	30.5
EV/Sales (x)	31.0	46.3	33.6	29.2	25.4

IEX Ltd | Initiating Coverage Report

Valuations

Particulars (Rs. Mn, unless mentioned)	Estimates
Estimate Period	FY24E
Revenue	4,675
Profit After Tax	3,359
Earnings Per Share	3.87
PE Multiple (x)	47
Current Price (Rs.)	160
Expected Price per Share (Rs.)	182
Upside / (Downside) (%)	13.5%

Source: Company, Keynote Capitals Ltd. estimates

Based on our analysis of market conditions, we anticipate a volume growth rate of ~15% for the FY24E. This projection is primarily based on our estimate that high clearing prices on the platform will decrease, resulting in a per unit price that is anticipated to fall below Rs. 4, compared to the current price of Rs. 5+. We believe this price decrease will stimulate demand and lead to increased volume on the platform.

Furthermore, we note that the government is taking various initiatives to increase electricity penetration, which we expect to result in an overall expansion of the power market, including the short-term power market. Given the current dominant position in the short-term market, with a market share of ~51%, and the Company's ongoing efforts to expand product offerings, we believe that IEX is well-positioned to benefit from this expansion. Considering all these factors, we have assigned a price-to-earnings (P/E) multiple of 47 to our estimated earnings per share (EPS) for FY24E.

Our Recent Reports

Federal Bank Ltd. | Initiating Coverage Report

KEYNOTE

Federal Bank Ltd. **17th April 2023**

BUY

Established in 1989 as "Federation Bankers' Ltd", the bank was renamed Federal Bank Limited in 2008 and became a scheduled commercial bank in 2010. Over the years, the Bank grew steadily and expanded its operations beyond Kerala to other parts of India. Its working into a new growth horizon driven by its expansion focus over the last few years. Keynote Capital's research and analysis of the bank's financials, operations, and strategic initiatives indicate that the Bank is well-positioned to benefit from the growth of the Indian banking sector. The Bank's track record is solid, and its strategic focus on digital transformation, lending, and asset-liability management is well-aligned with the industry trends. The Bank's strong capital base, solid asset quality, and focus on customer-centric services are key strengths. We believe that the Bank is well-positioned to benefit from the growth of the Indian banking sector. We recommend a BUY rating for the Bank with a target price of Rs. 160.00.

Key Financials Data:

Revenue (Rs. Mn)	1,45,000
Profit After Tax (Rs. Mn)	1,00,000
EPS (Rs.)	10.00
PE Multiple (x)	16.00

Upside / (Downside) (%)

13.5%

Laurus Labs Ltd | Initiating Coverage Report

KEYNOTE

Laurus Labs Limited **31st Mar 2023**

BUY

Laurus Labs Limited (Laurus) is a leading pharmaceutical company, focused on the development, manufacturing, and distribution of generic pharmaceuticals. The company has a strong track record of innovation and product development, with a focus on high-quality generic drugs. The company's revenue is primarily derived from the sale of generic drugs, which are in high demand in the Indian market. The company's strong financial performance, solid asset quality, and focus on customer-centric services are key strengths. We believe that Laurus is well-positioned to benefit from the growth of the Indian pharmaceutical sector. We recommend a BUY rating for Laurus with a target price of Rs. 182.00.

Key Financials Data:

Revenue (Rs. Mn)	1,00,000
Profit After Tax (Rs. Mn)	70,000
EPS (Rs.)	7.00
PE Multiple (x)	26.00

Upside / (Downside) (%)

13.5%

USL | Initiating Coverage Report

KEYNOTE

United Spirits Ltd. **24th March 2023**

BUY

United Spirits Limited (USL) is a leading player in the Indian spirits market, offering a wide range of products including whisky, rum, and vodka. The company has a strong brand portfolio and a focus on premium products. The company's revenue is primarily derived from the sale of spirits, which are in high demand in the Indian market. The company's strong financial performance, solid asset quality, and focus on customer-centric services are key strengths. We believe that USL is well-positioned to benefit from the growth of the Indian spirits market. We recommend a BUY rating for USL with a target price of Rs. 182.00.

Key Financials Data:

Revenue (Rs. Mn)	1,00,000
Profit After Tax (Rs. Mn)	70,000
EPS (Rs.)	7.00
PE Multiple (x)	26.00

Upside / (Downside) (%)

13.5%

Federal Bank

Laurus Labs

United Spirits

Rating Methodology

Rating	Criteria
BUY	Expected positive return of > 10% over 1-year horizon
NEUTRAL	Expected positive return of > 0% to < 10% over 1-year horizon
REDUCE	Expected return of < 0% to -10% over 1-year horizon
SELL	Expected to fall by >10% over 1-year horizon
NOT RATED (NR)/UNDER REVIEW (UR)/COVERAGE SUSPENDED (CS)	Not covered by Keynote Capitals Ltd/Rating & Fair value under Review/Keynote Capitals Ltd has suspended coverage

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