



Mr Satyanarayan Goel - Chairman & MD

INDIAN ENERGY EXCHANGE

Sharp Focus on the Advancement and Development

CAN YOU PLEASE GIVE AN OVERVIEW OF YOUR PROFESSIONAL BACKGROUND LEADING UP TO AND INCLUDING YOUR CURRENT ROLE?

I joined the Indian Energy Exchange in January 2014 as the Managing Director and CEO and served in the role until July 2019 and thereafter, as Non-Executive Chairman upto February 19, 2021. Have been Chairman and Managing Director since February 2021.

Prior to IEX, I was the Director - Marketing and Operations at PTC India Limited. Prior to PTC, I was associated with NTPC Limited for 29 years, leaving as an Executive Director of the Company. I hold a bachelor's degree in Electrical Engineering from NIT Rourkela and a Master's degree in Business Administration from the Faculty of Management Studies, New Delhi.

Have over 40 years of rich professional experience in different areas of power sector. Over these years, have been actively involved in various reform initiatives of Govt. of India and development of power market in the country.

Over the years at IEX, the Company has successfully established as an institution. Has enlarged its portfolio of offerings, and undertaken several digital transformation initiatives, leading to significant growth of business as well as the first diversification initiative with commencement of its subsidiary the Indian Gas Exchange

(IGX). As we evolve further and continue to do our bit, I look forward to each day with passion, and enthusiasm working with great vigor in a collaborative mode towards shaping India's energy future leveraging energy markets, innovation, and technology.

WHAT HAVE BEEN SOME OF THE SIGNIFICANT HIGHLIGHTS OF INDIA ENERGY EXCHANGE LTD (IEX) HISTORY?

Over the years, IEX has been leading transformation of the Indian power sector working as India's premier energy marketplace, facilitating a shift from long-term contracts to a dynamic market-based contracting which is competitive, flexible, transparent, risk-free, reliable, and secure. IEX is facilitating stakeholders to meet their power demand and supply in the most efficient manner.

We have pioneered several market segments and products that have been introduced over the last 14 years. The Exchange started with the Day Ahead Market in 2008 and subsequently added the Term Ahead Market, Certificates trading in Renewables and Energy Saving, and recently in 2020 started the Real Time Market and the Green Markets – both day-ahead, and term ahead contracts are now available for trading in the renewable energy. As a part of cross-border electricity trading initiative, Nepal and Bhutan commenced buying and selling in the Exchange's Day-ahead market in 2021 and Bangladesh is also

expected to commence soon. We are thus now providing a diversified spectrum of market segments to facilitate the dynamically evolving requirements of our market participants. Additionally, our subsidiary IGX has been working ceaselessly in the gas sector with an objective to develop India's gas markets, exactly what IEX has contributed towards shaping the power market since its inception in the year 2008.

The competitive power prices discovered at IEX since 2008 have been serving as benchmark for power purchase for long, medium and short-term basis and even providing signals for future generation capacity addition, and strengthening of power transmission capacity, besides enabling various policy and regulatory measures for further growth and development of the power markets. The Exchange discovered competitive prices coupled with flexible procurement have enabled the distribution utilities accrue significant savings over the years. A recent media article mentioned that Andhra Pradesh Central Power Distribution Corporation alone saved more than INR 2300 crores collectively in FY'20 and FY'21 by procuring power through the Exchange Market. We have 29 States and over 60+ Discoms who trade electricity through us, and each has benefited immensely.

We operationalized retail open access in India in 2011 for 1MW and

above consumers, providing the commercial and industrial consumers across the country to source competitively priced power and enhance their profitability and ease of doing business. Our eco-system now has 4600+ C&I consumers.

Over the years as we developed the market and the eco-system, we

future, transforming the way through our forward-looking strategies and planned development of the energy markets.

WHAT IS THE VISION OF INDIA ENERGY EXCHANGE LTD (IEX)?
HOW IMPORTANT IS CUSTOMER CENTRICITY TO IEX?

IEX envisions to architect the next-generation energy solutions by

energy markets towards the objective of building sustainable and efficient energy future. A few customer-centric initiatives we have undertaken in the recent past to ensure that we are effective and agile in meeting the needs and aspirations of our market participants include:

- Commencement of web-based platform, to provide digital



have simultaneously retained sharp focus on the advancement and development of the exchange technology and we continue to further evolve our systems - with customer centricity and innovation in mind - to advance and deepen India's energy markets and also stay ahead of the curve.

Today, the Exchange Market constitutes 7% of India's overall annual electricity consumption and IEX has been leading it from the front. The successful transformation demonstrated over the last 14 years has led to government envisioning a bigger role for power markets going forward. The Draft National Electricity Policy envisages spot markets to constitute 25% of overall annual electricity consumed in India in next three years. At IEX, we stay committed in our vision to build a sustainable and efficient energy

ensuring competitive, transparent, and reliable access to energy. In order to realize this vision, IEX aims to leverage technology and innovation and establish transparent and efficient energy marketplaces. We have successfully built a robust eco-system of almost 7,000 participants including 60+ distribution utilities, 500+ generators, 1500+ renewable participants and 4600+ open access consumers.

Customer-centricity is pivotal to all we undertake. We are continuously investing efforts and resources towards advancing and strengthening exchange technology as well as shaping and introducing innovative products. We continue to work pro-actively in this endeavor in collaboration with our stakeholders and partners to build

registration, data insights and analytics to our customers offering greater efficiency in their exchange-based procurement.

- Enhancing the Customer Experience across all the key touchpoints – Registration, Bidding, Physical Delivery, and Financial Settlement that the Customers have with our platform.
- Advancing the web platform to next level and introduce the web-based bidding to provide Anytime, Anywhere, Easy and Secure bidding experience to our market participants.
- Providing seamless bidding experience and minimizing manual interventions, we have launched automated bidding through Application

Programming Interface (API) for the Real Time Market (RTM) product. We are currently working to extend the API based automated bidding solutions for all other market segments.

- IT tools for bid creation and power procurement optimization have made it very easy and fast for the market participants to create bulk bid details and upload to our platform.
- System integration with our Clearing Banks has been enabling faster financial transactions with our customers.
- New technologies such as Robotic Process Automation (RPA) have been helping us to eliminate human dependency on processes, which provides us with more bandwidth in the team to engage with customers to get a better understanding of the new services and products that we should build for our customers.

WHAT DO YOU THINK SETS YOUR BUSINESS APART FROM ITS COMPETITORS?

Technology is a key differentiating factor for any Exchange business. Apart from the liquidity advantage that our robust eco-system brings, our robust technology platform is our competitive moat. We continually invest efforts and resources in technology to elevate its ease, reliability, security and provide the best-in-class experience. Our Exchange trading platform is designed to be highly intuitive, scalable, with 24x7 availability, enabling us to meet user growth as demand increases. On an ongoing basis, we invest in enhancing the availability and security of our platform.

In our close to 14 years of operations, we have never had an

unplanned downtime or any security breach. For the RTM market that was launched in June 2020, requires auction to be conducted 48 times in a day. We have invested significantly in enhancing the technology platform to ensure seamless and highly automated power auctions. With commendable efforts, we have upgraded our technology platform and have achieved zero fallouts and errors in RTM auctions.

Our relentless focus on customer centricity coupled with the best-in-class technology, a focused and dedicated team, and tech partnerships with local and global companies, indeed sets us apart.

We are continuously designing and introducing innovative products to address the requirements of our customers which will help further grow the markets. These products are also facilitating India's energy transition driven by growing role, prominence, and use of renewable energy. In the past, we have launched several market segments in electricity, green market, cross border market, and certificates market, and we are now working on launching ancillary markets, longer durations contracts, capacity markets, and gross bidding.

Last but not the least, collaboration with our partners and stakeholders has been imminent to introducing futuristic and evolved products to match the changing requirements that the fast-evolving energy transition is bringing in.

WHAT IS YOUR OVERALL PERSPECTIVE OF THE POWER SECTOR IN INDIA?

There has been a paradigm shift in India's power sector over the past decade and we are now at the cusp of transformation.

The government has been successful in making strides in expanding the access to electricity to all households in India through

Saubhagaya and other related schemes. With an increase in industrial and economic growth, thrust on urbanization, and enhanced electrification, the per capita consumption of electricity has almost doubled from 696 kWh in FY'11, to 1208 kWh in FY'21.

Back in 2008 when we commenced operations, the country used to have a deficit in the peak demand and consumption of energy of the order of 15-20%. Today, after 14 years, the situation has completely reversed, with India now becoming a power surplus country with power deficits a thing of the past. At almost 400 GW of installed generation capacity, we now have a surplus generation capacity. In addition to meeting our own demand, we are now exporting power as well to our neighboring countries. Our policy and regulatory frameworks have evolved immensely in the last two decades.

Now, the transition to renewable energy is gaining momentum. Our Prime Minister recently announced a target of 500 GW of RE capacity by 2030 and net zero emissions by the year 2070, at CoP 26 Summit in Glasgow. The cost of green energy has reduced drastically. Power markets have played a key role in the growing of renewables in the energy mix and will go a long way in building an efficient energy economy.

In terms of transmission, there has been significant investment in expansion of infrastructure through the years and that is reaping benefits today. Now, with 765KV transmission highways along with HVDC links across the country, we have successfully developed an integrated single grid in the country which is the largest in the world. Power can now flow seamlessly across the country resulting in one nation one price on round the year basis.

The regulatory and policy aspects with regard to the power sector have evolved considerably apropos the introduction of the Electricity Act in 2003. The legislative system now benefits from a complete rewiring that has been carried out through the last two decades.

The distribution segment continues to demand greater attention and reforms despite the various initiatives that have been undertaken. Despite a considerable

Increased digitalization has been bringing various new opportunities to the fore. Energy markets and technology such as smart metering, smart sensors, grid automation & digital network technologies, along with Internet of Things (IoT) devices are expected to become the key drivers of the future energy landscape transformation. Adoption of hydrogen, EVs, battery storage solutions and their integration with

force, defines our identity and reflects in our core values. So, for us, it is paramount and inbuilt in the way we work and operate. We ensure that our culture drives our people to work as a team, delivering the optimal output and function with the best of their abilities.

As an employee-centric organization, we endeavor to



decline in AT&C losses, losses continue to hamper Discoms financial health. Tariff continues to be uneven with a stark gap between the retail tariffs and the cost of generation. Tariffs are still not determined on the cost of supply. These issues require redressal immediately and to do that, the Government is already working on the Electricity Amendment Bill which mentions de-licensing of distribution and customer choice.

I see an immense potential in the power sector going forward.

the energy markets which provide transparent price signals, would help to build innovative business models, empower end consumers, and build a sustainable and efficient energy future.

HOW IMPORTANT IS CULTURE TO THE BUSINESS? HOW DO YOU INSTILL THIS IN YOUR EMPLOYEES?

IEX has always pursued the culture of customer and employee centricity, with trust, relationships, and excellence being other pillars towards building a strong value system. This culture is our guiding

integrate all individuals, stakeholders, and work in an inclusive way with every voice being heard. Our policies are transparent, and fair and our environment encourages all employees to think, innovate and contribute. Values such as transparency, equity, accountability, integrity, and respect are core drivers of the company, and every employee at IEX imbibes these values.

WHAT ARE THE PLANS FOR THE FUTURE IN TERMS OF EXPANSION AND GROWTH?

Our future plans can be looked at into two parts – our core business of energy markets and adjacencies.

Our core business is the power markets. We have built the markets and continue to deepen them through products that meet the requirements of our participants. Also, longer duration contracts upto 365 days, ancillary markets, gross bidding, and capacity markets are on the anvil. We are seeing an energy shift and the concentration of renewable energy is growing. With the advent of rooftop solar and such unconventional sources of power generation, we are looking at the new opportunities like local markets, and peer-to-peer trading.

Just like with our products and trading mechanisms, we are continuing to strengthen our exchange technology and are working round the clock to improve its interface, security, and transparency, along with making it more customer centric.

The successful foray of IEX into gas with IGX is an example of our adjacencies. We are actively accessing similar asset-light opportunities within India and South Asia and beyond, that exist within the energy domain. These could range from energy markets like coal and carbon, or they could be in terms of power market consulting, and collaborative opportunities.

WHAT ARE SOME OF THE KEY GOALS MR. SATYANARAYAN GOEL AND INDIA ENERGY EXCHANGE LTD (IEX) COMPANY HAVE ACHIEVED SINCE THEY BEGAN THEIR ROLE AS THE CHAIRMAN AND MANAGING DIRECTOR?

I think a few biggest key goals that IEX and myself have achieved together are the development and evolution of power markets in India.

Exchanges have grown from a share of less than 3% in 2014 of the total generation when I joined the organization, to around 7% presently. Fiscal year 2022 is very special for us as we aspire to reach 100 BU volume milestone. The successful transformation delivered by the markets over the last few years has led to government envisioning a bigger role for power markets going forward. Additionally, our foray into Gas Exchange will help build India as a Gas based economy.

More specifically, the inception of the new market segments such as real-time market, green market, cross border market in the last two years during the challenging days of COVID-19 has been a significant achievement. During the tough days of Covid-19 crisis, we could not only provide round-the clock and uninterrupted access to our platform but also stepped up on our product range and customer engagements. With these

segments, we are providing a diverse range of product offering in conventional power market, green markets, cross border electricity market, certificates and this list is growing. All this was ensured while keeping the employee safety as a first priority.

We have evolved our technology at a rapid pace; starting from rigid platforms to now featuring extremely flexible architecture that employs the world's best systems and processes. Our technology is future ready and is scalable enough to handle new products as well as the expanded eco-system and growing complexities of the day.

We successfully listed IEX on BSE and NSE in October 2017, and have delivered splendid and meaningful returns to our investors and shareholders.

Going forward, the introduction of other new products such as long duration contracts with trading upto 365 days, commencement of electricity derivatives benchmarked with IEX spot electricity prices on Commodity Exchanges, ancillary market and national open access registry are some of the other important milestones that are on the anvil which will help the markets and participants immensely, taking markets to the next level of growth.

