



Dated: February 11, 2019

**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, 5th Floor, Plot no C/1
G Block, Bandra Kurla Complex
Bandra (E), Mumbai-400 051**

Scrip Code: BSE- 540750; NSE- IEX

Subject: Investors Presentation February 2019

Dear Sir / Madam,

Pursuant to Regulation 30 of the SEBI (LODR) Regulations, 2015, please find attached updated Investor presentation February 2019.

This is for your information and records.

Thanking You

Yours faithfully,

For **Indian Energy Exchange Limited**

**Vineet Harlalka
Company Secretary & Compliance Officer**



Encl: as above



Investor Presentation

FEBRUARY 2019

IEX: India's leading Power Exchange

42 BUs of electricity traded in 9M FY19 with an increase of 20% w.r.t. 9M FY18

127.18 Crs PAT in 9M FY19 with an increase of 27% w.r.t. 9M FY18

India's First & Largest Power Exchange

Dominant market share of over 98% of traded volume in electricity

Efficient price discovery through transparent and automated online platform

Diverse registered participants base of more than 6400

Business Model based on highly scalable and proven technology



- Exchanges provide a **transparent, competitive and efficient platform** for transactions in any market – Stock or commodity. Same is true for power sector.
- The concept of Exchanges in Power Sector was initially **introduced in 1990-91 in Europe.**
- **Now, worldwide Power Exchanges are operating in almost 40 countries.**
- Power Exchanges are **most preferred option for sale and purchase of Power.**
- In India, **after Electricity Act, 2003 market framework for Exchange operations was put in place.**
- Exchanges in India started operations from 2008.

- Inception in **June 2008**
- Operating under the Regulatory oversight of Central Electricity Regulatory Commission (CERC)
- Transparent online market platform for delivery based trading
- Flexible trading with price discovery for 96 time-blocks of 15 min each for Day-Ahead Market
- Technology buy out: On May 16, 2017, IEX acquired trading software along with the team
- **IEX became publically listed on 23rd October 2017**



➤ Market Share: **98%**


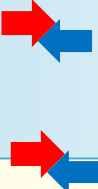



➤ Average daily trade: **6000+ MW**

➤ High Participation: **6400+**

4000+ Industries | **56** Discoms (all) | **100+** ESCert Entities

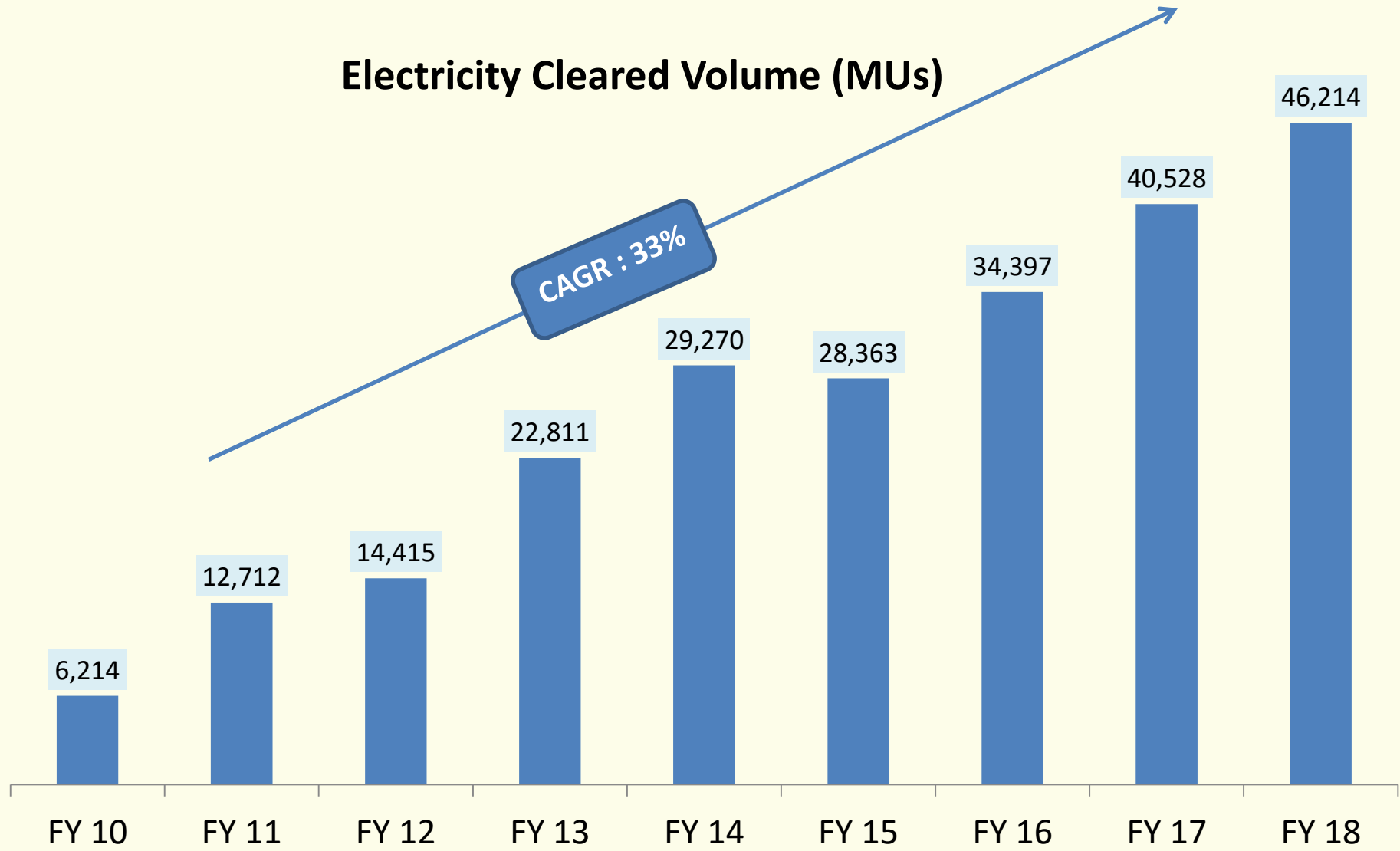
500+ Generators | **1600+** RE Generators & Obligated entities



<p>Day-Ahead Market since June,08</p>	<ul style="list-style-type: none"> • <i>Delivery <u>for next day</u></i> • <i>Price discovery: Closed , Double-sided Auction</i> 	
<p>Intraday Market & Day-Ahead Contingency Round the clock since Jul'15</p>	<ul style="list-style-type: none"> • <i>Intraday: For Delivery <u>within the same day</u></i> • <i>Day Ahead Contingency: <u>Another window for next day</u></i> • <i>Gate closure : 3 hours</i> 	
<p>Term-Ahead Contracts since Sep'09</p>	<ul style="list-style-type: none"> • <i>For delivery <u>up to 11 days</u></i> • <i>Daily Contracts, Weekly Contracts</i> 	
<p>Renewable Energy Certificates since Feb'11</p>	<ul style="list-style-type: none"> • <i>Green Attributes as Certificates</i> • <i>Sellers : RE generators not under feed in tariffs</i> • <i>Buyers: Obligated entities; 1MWh equivalent to 1 REC</i> 	
<p>Energy Saving Certificates since 27th Sep'17</p>	<ul style="list-style-type: none"> • <i>1 ESCert = 1 mtoe (metric Tonne of Oil Equivalent)</i> • <i>Trading Session on every Tuesday of the Week</i> • <i>Trading time 1300 hrs to 1500 hrs</i> 	

Electricity Cleared Volume (MUs)

CAGR : 33%



Source: IEX Data (DAM+TAM)

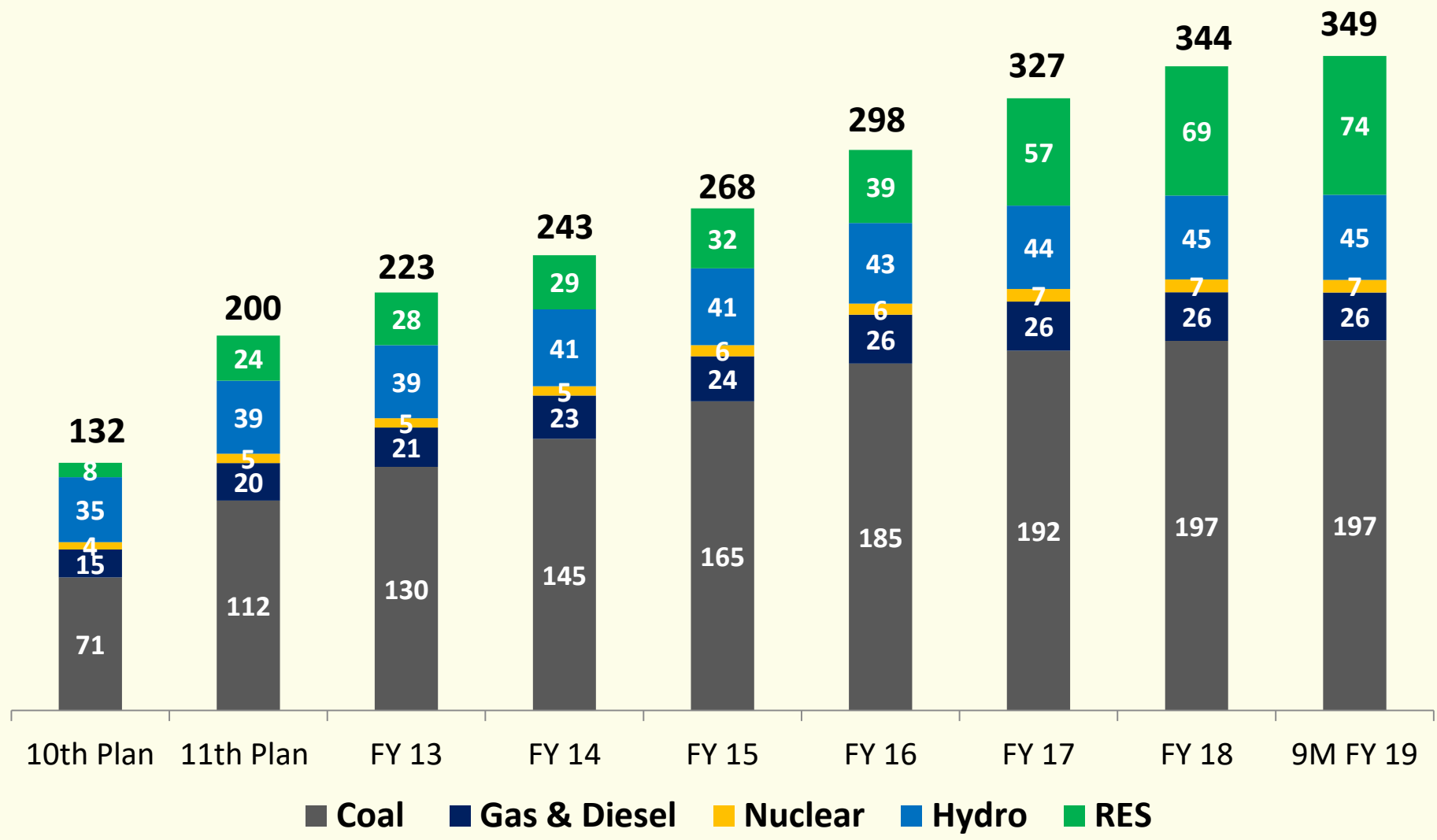
SECTOR OVERVIEW & IMPACT ON POWER EXCHANGE

Generation

Transmission

Distribution

Installed Generation Capacity of India (All figures in GW)



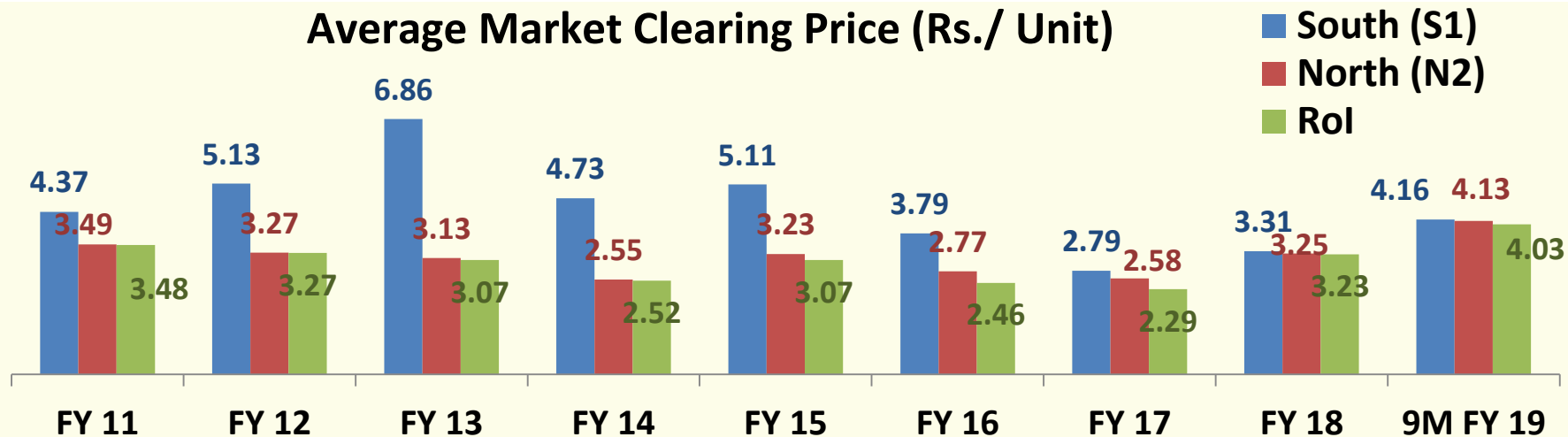
Generation

Category	Installed Capacity (MW)	PLF(%)	Generation (BUs) FY-18	Feasible PLF(%)	Possible Generation (BUs)
Coal	197172	60	986	80	1382
Gas	24897	23	50	20	44
Diesel	838	3	0.24	0	0
Hydro	45293	32	126	33	131
Nuclear	6,780	64.5	38	80	48
RE	69022	17	102	18	109
Total	344,002		1302		1713

- **Installed capacity** has increased at a CAGR of 9.5% i.e. from 199 GW in FY 12 to 344 GW in FY 18.; enough to meet the demand of next 5 years at a growth rate of 6%
- In last 6 years, **Peak demand** met increased at a CAGR of 5.6% and **energy supply** has grown at 5.8 CAGR which is much below growth of capacity addition.
- Above has resulted into surplus capacity, PLF for thermal power plants for FY 18 is 60% only.
- Further capacity addition of 50,000 MW of conventional power and more than 1,00,000 MW of Renewable power expected during 13th Plan

Installed capacity has grown at a faster pace compared to demand

Average Market Clearing Price (Rs./ Unit)

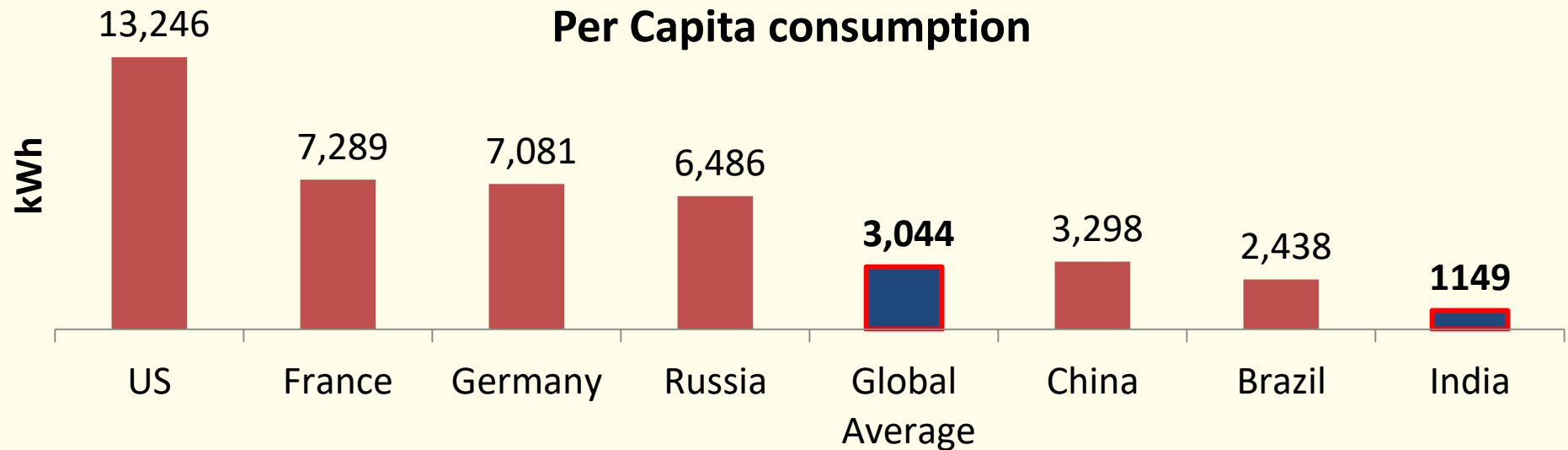


FY	Market Clearing Volume (MU)	Cleared volume (MU)	Curtailed Volume (MU)	Curtailement (%)
FY 14	34,230	28,925	5,305	15.5
FY15	31,227	28,141	3,086	9.9
FY16	36,210	34,067	2,143	5.9
FY17	41,310	39,830	1,480	3.6
FY18	45,121	44,925	196	0.4
9M FY19	40,982	40704	278	0.7

- With transmission augmentation, congestion has reduced.
- Reduced congestion has increased reliability in sourcing power from exchanges

- Government of India initiatives like 'Saubhagya', '24*7 Power Supply' and 'Rural Electrification' has boosted power demand in the Country
- Another major initiative UDAY is helping DISCOMs to achieve financial stability and increase power purchase capability
- These initiatives have resulted in increase in overall electricity peak demand and energy requirement by 7.9% and 6.2% respectively in 9M FY19 YoY
- In 9M FY19 states like Odisha(15%), Bihar(16%), Andhra Pradesh(12%), Rajasthan(13%), Jharkhand(12%), Maharashtra(8%), Gujarat(8%) and Madhya Pradesh(7%) witnessed significant increase in demand YoY

Increase in demand is helping short term market grow



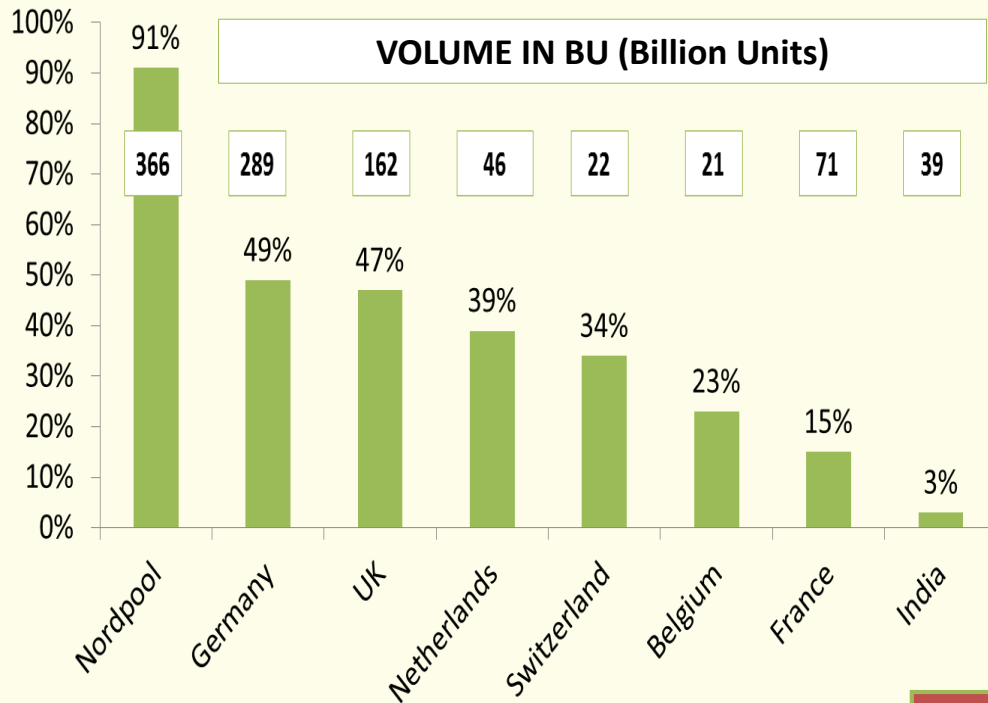
- With expected thrust on economic and industrial development and 24/7 power supply, Per Capita consumption bound to increase

**To bring per capita close to global average, 3X power generation will be required
: POTENTIAL FOR GROWTH**

Power Exchange across Globe:

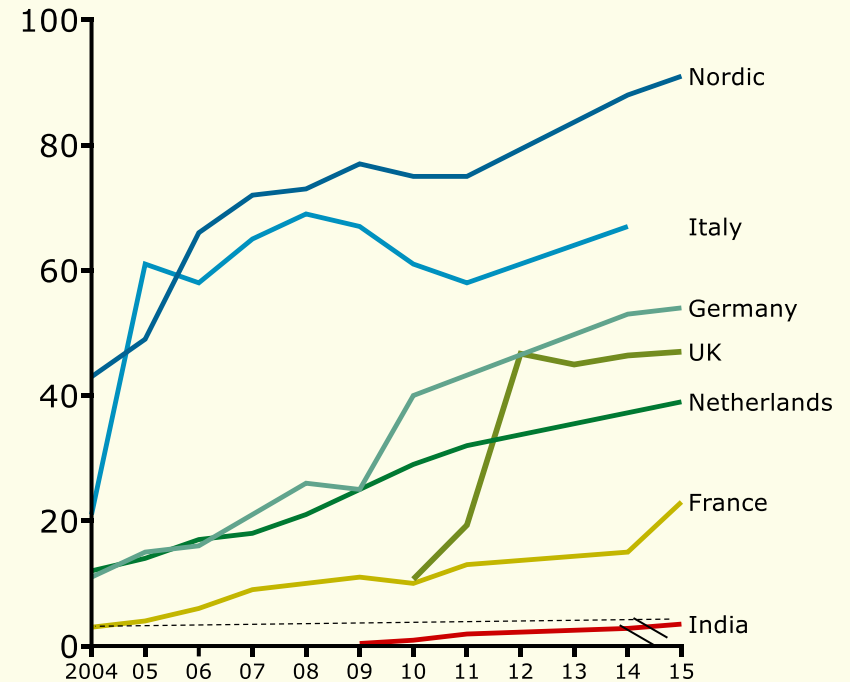
Enormous potential to grow for India compared to international benchmarks

INDIA TRADES ~3 OF ITS OVERALL CONSUMPTION ON EXCHANGE MARKETS COMPARED TO 15-91 GLOBALLY



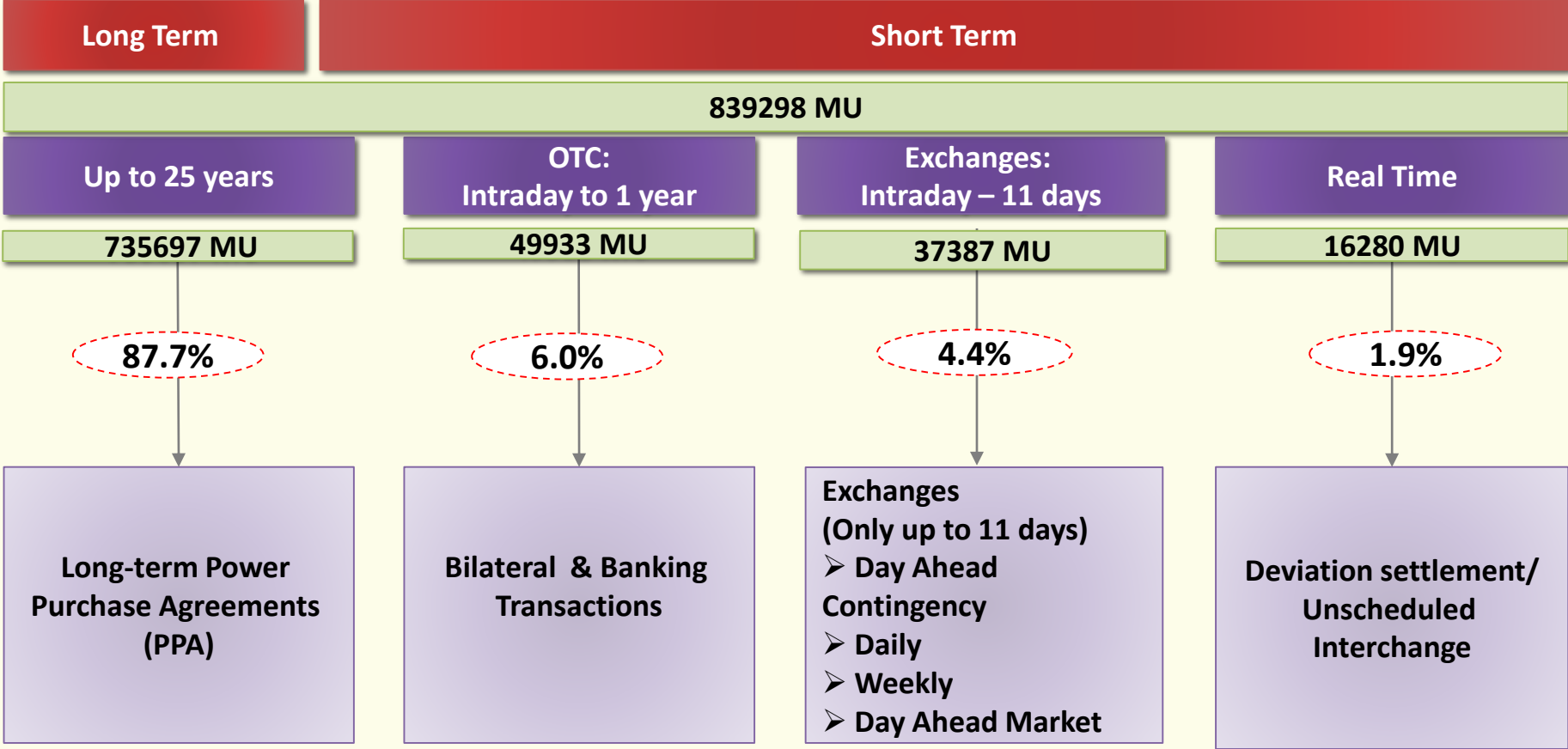
GLOBAL BENCHMARKS ON PENETRATION OF ST MARKETS

Exchange traded (% total consumption)



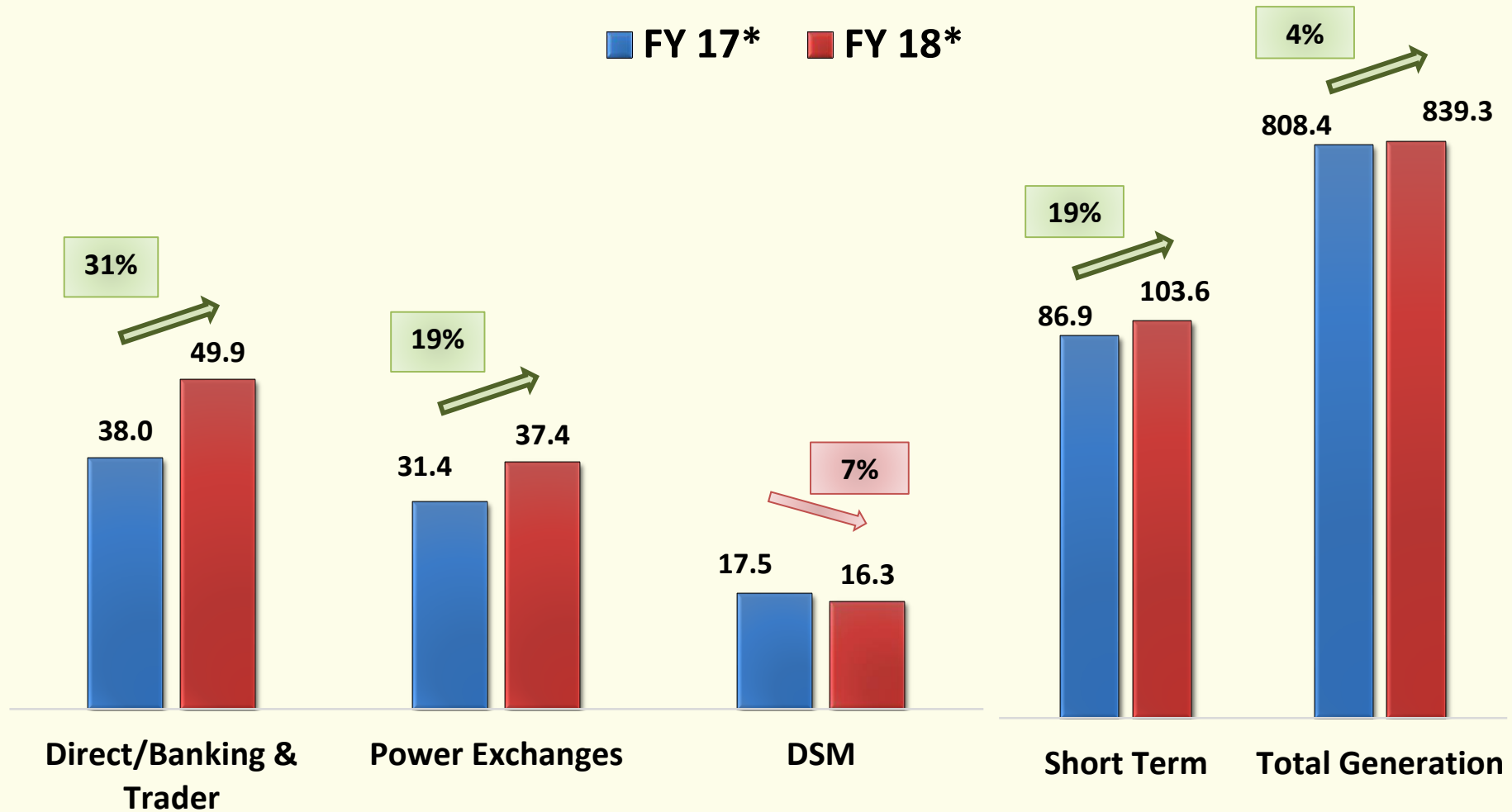
Indian markets still at a nascent stage and high potential for growth for the Indian Power Exchanges

MARKET SNAPSHOT



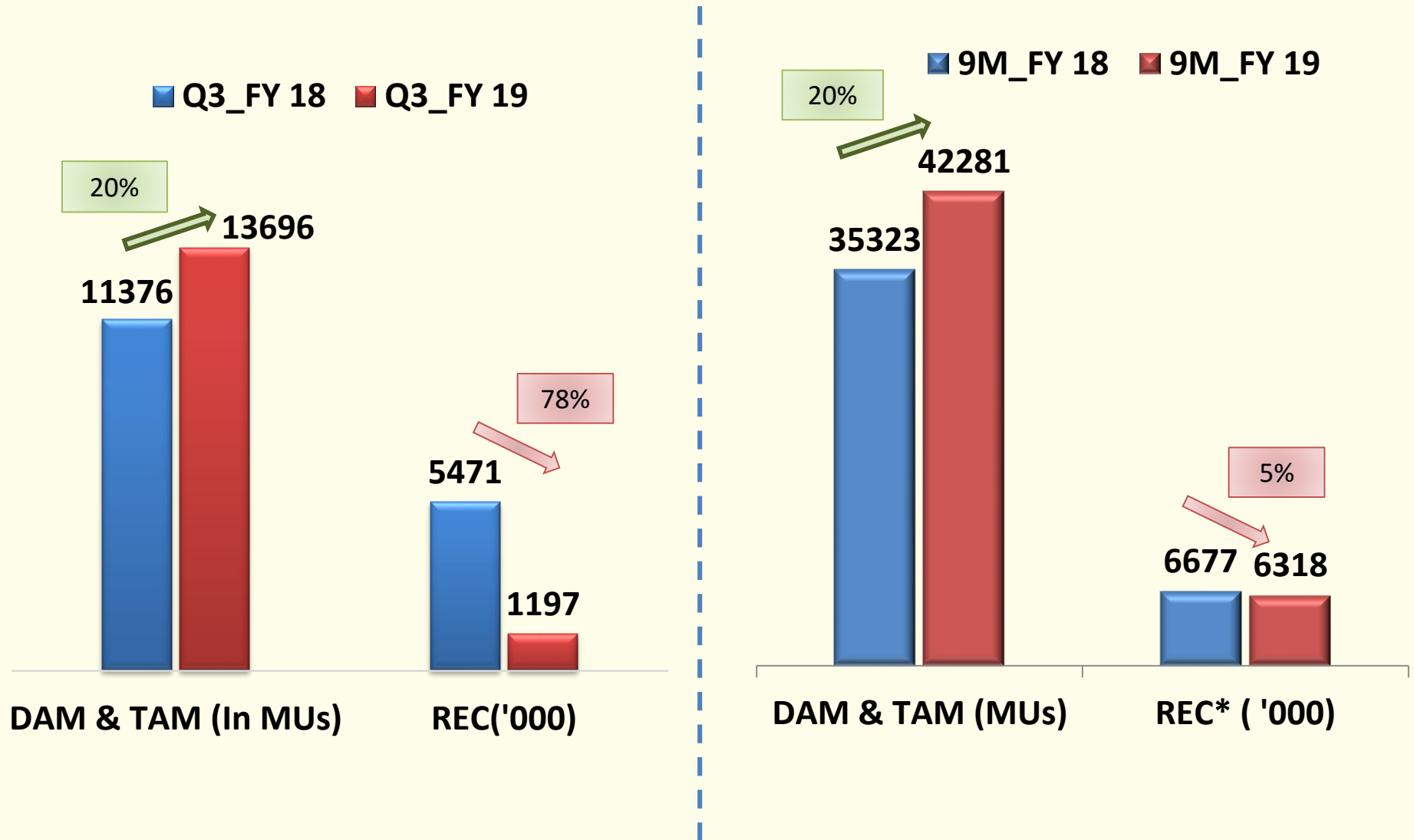
Short Term Power market is at 12.3 %, Power Exchange volume in the segment have been growing significantly

Source: CERC MMC Report



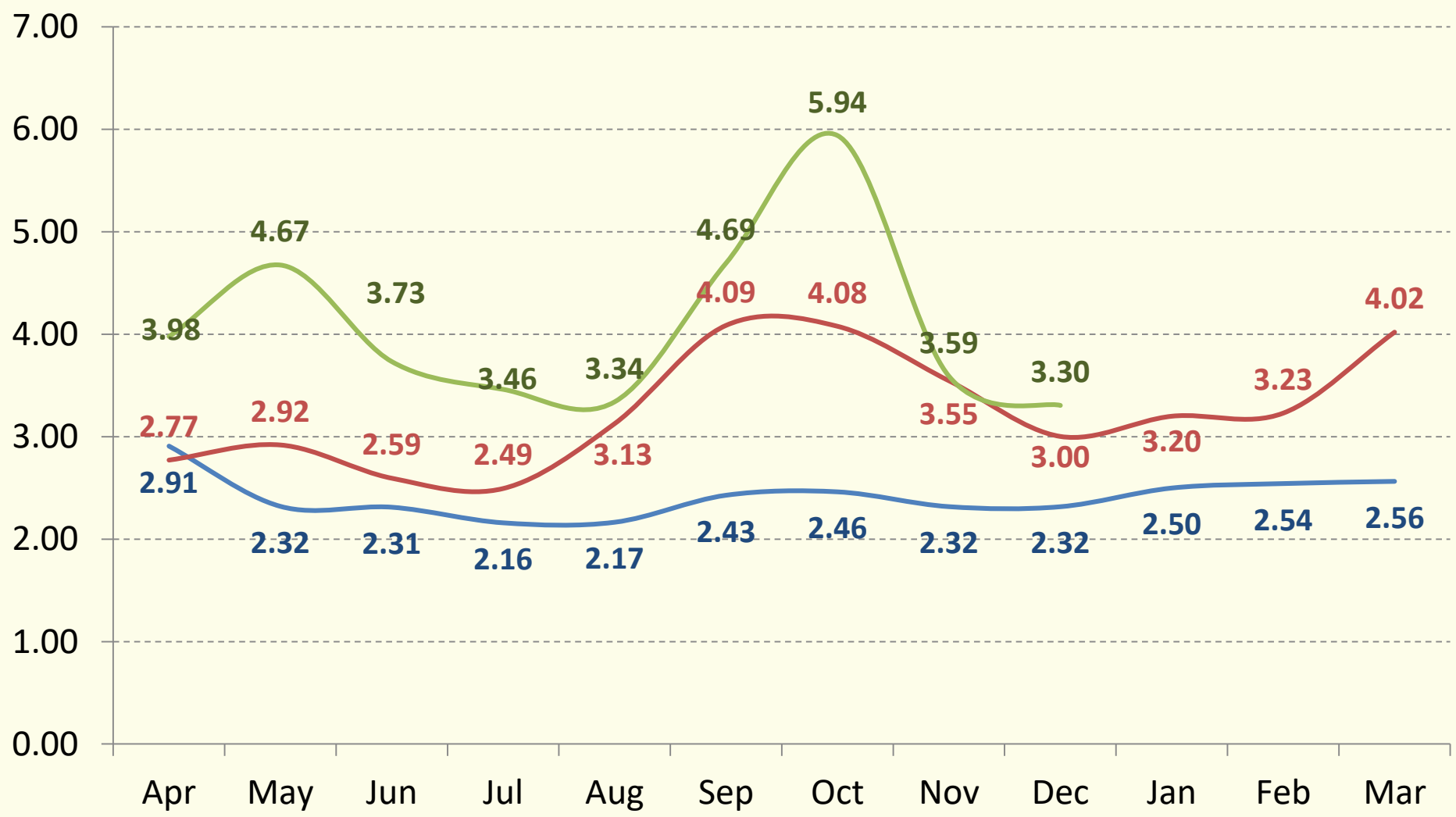
Overall generation in the country, increased by 5% in FY 18 till 31st Nov,18 (CEA)

*Source: CERC MMC Report_ As on 31st Nov



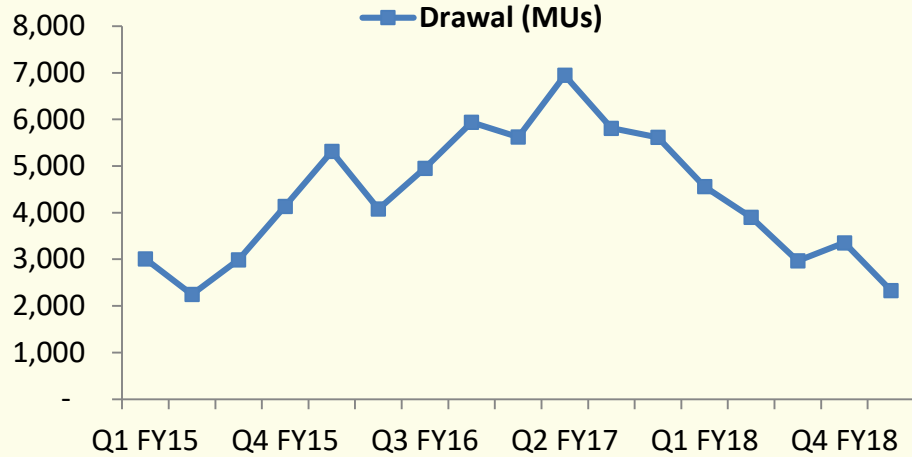
Decrease in REC volume due to lower inventory

FY17: 2.42
FY18: 3.26
FY19*: 4.08

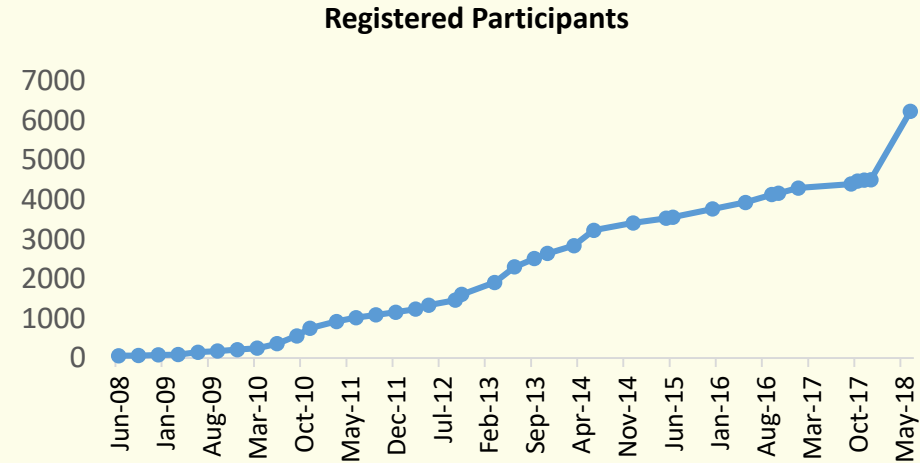


*Note- As on 31st December,18

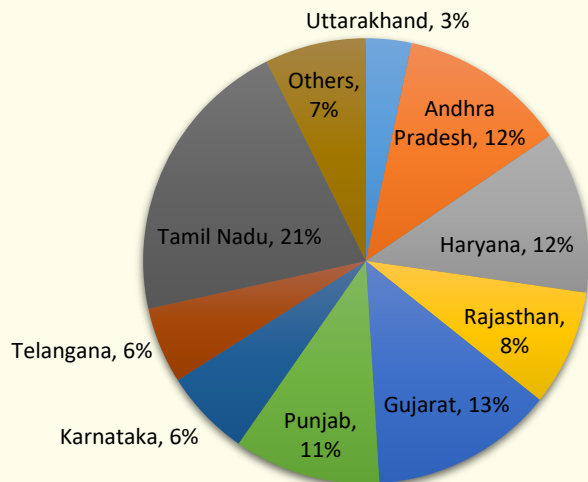
Price Sensitive Open Access Volumes



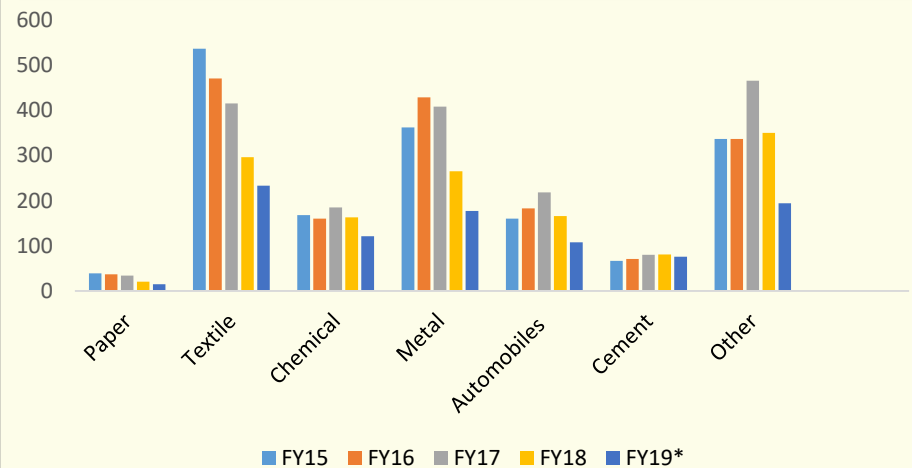
Registered participants has been growing



Open Access Consumers _ States (As on 31st Dec18)



And Spread Across Industries (FY19 - As on 31st Dec,18)



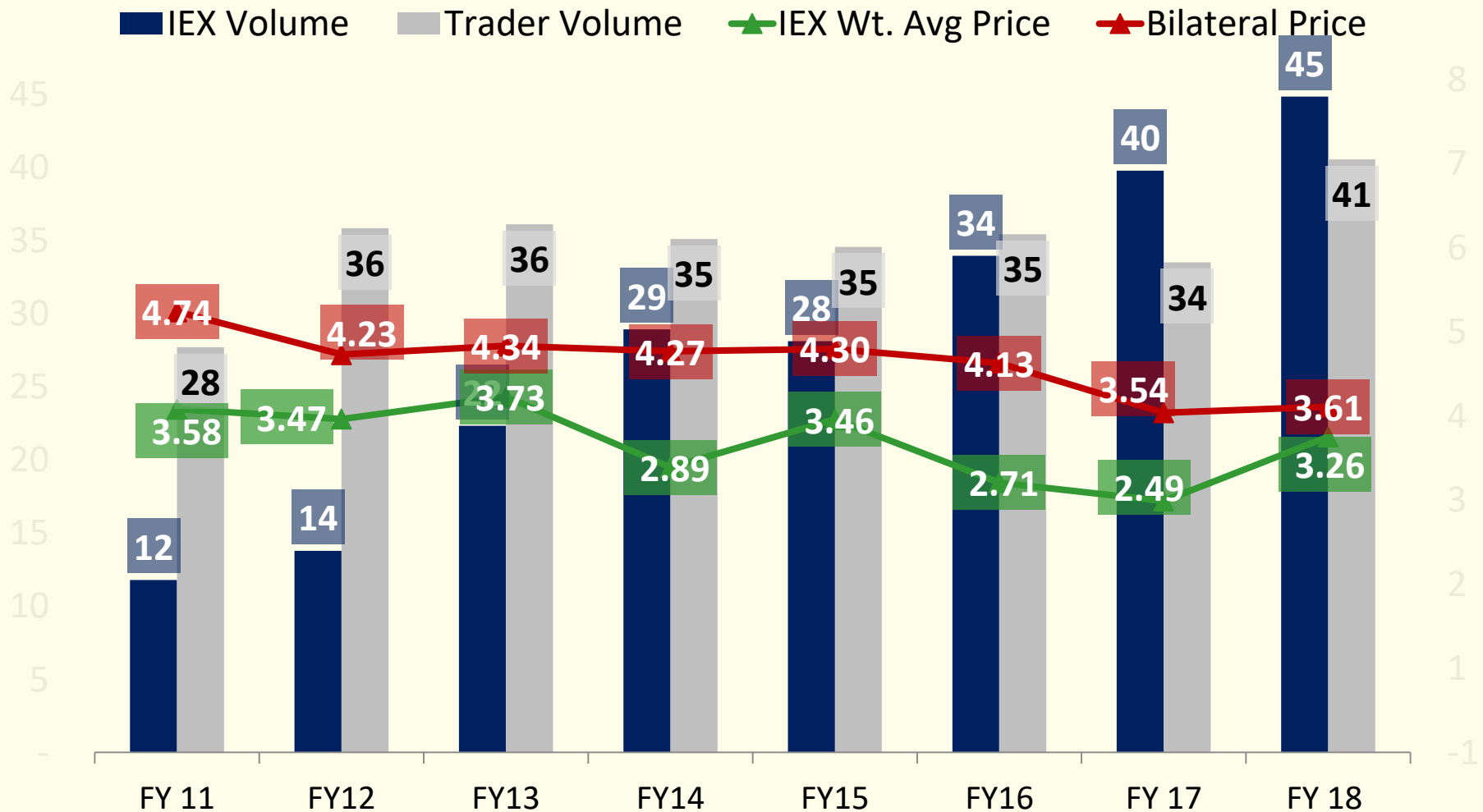
Participation has shown significant growth over the years

OPPORTUNITIES & CHALLENGES FOR EXCHANGE OPERATIONS

Efficient Price discovery

Efficient price discovery has been the biggest growth driver for exchanges in the past

- ◆ Discoms can source cheaper power through Exchange to meet shortages
- ◆ Industries can source competitive power to reduce their input costs
- ◆ Prices at Exchange always lower than Bilateral contracts

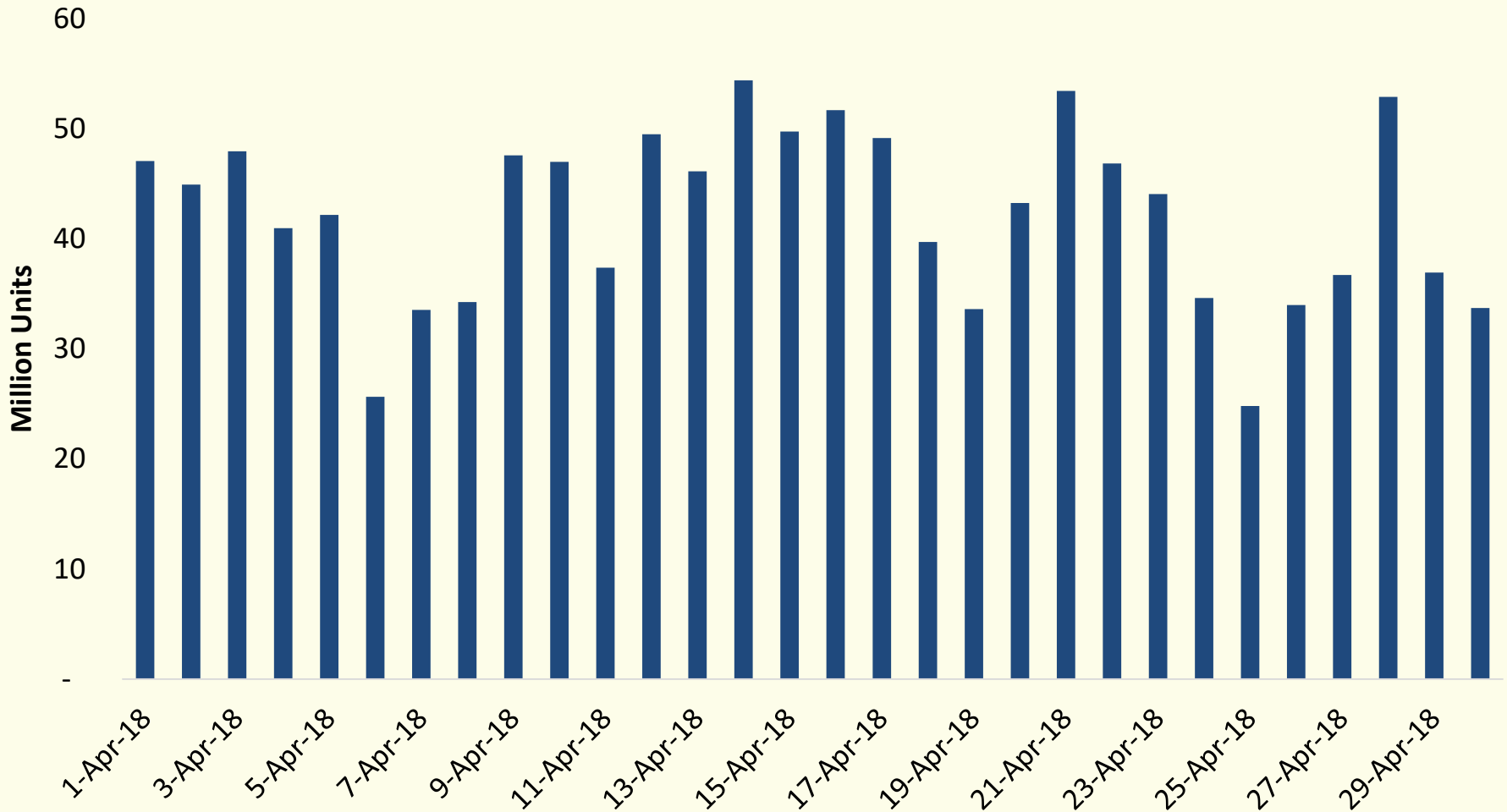


Flexibility

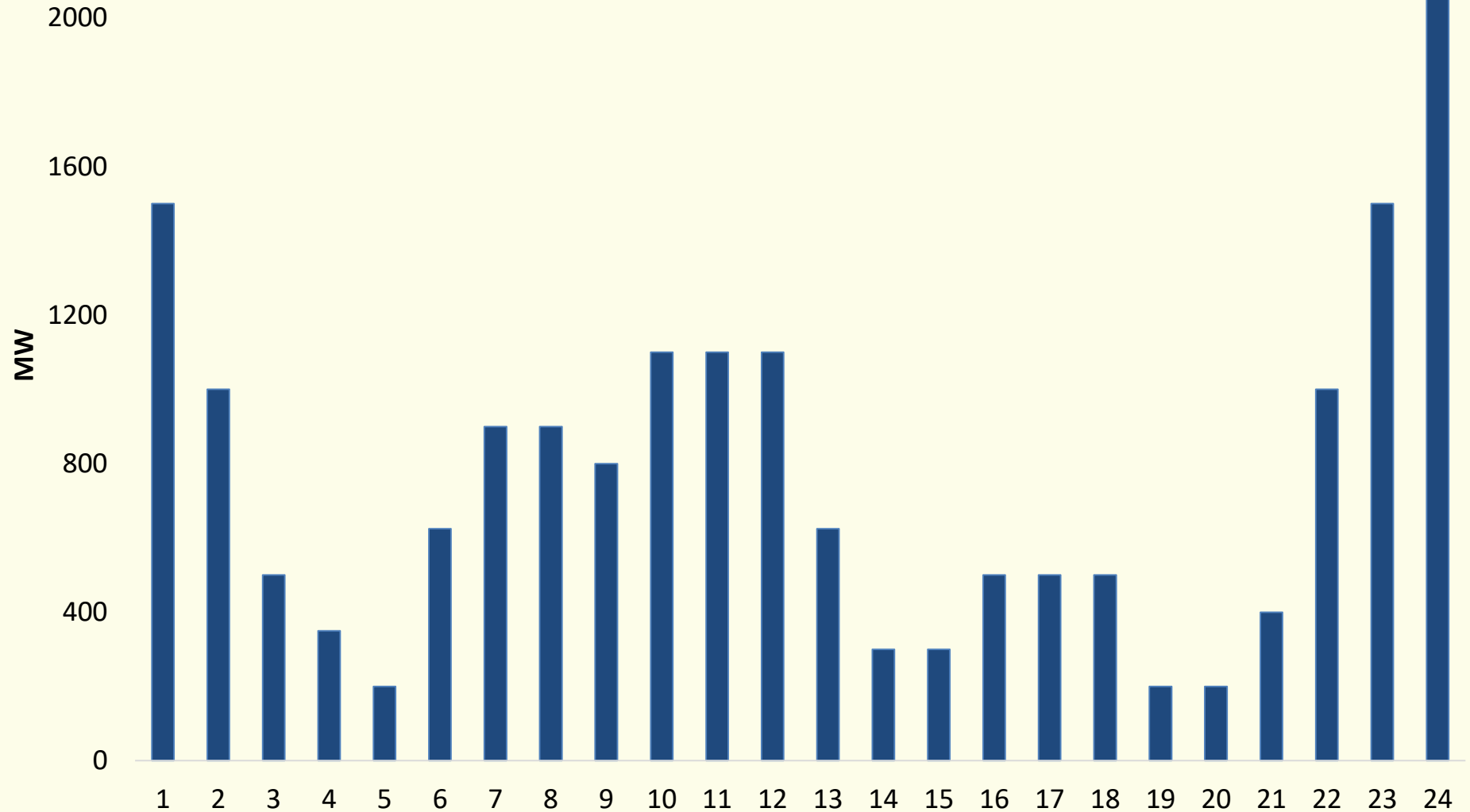
Exchange provides flexibility to purchase power as per requirement throughout the year

Option available to Buy/Sell different quantum for each 15 mins time block. Minimum bid quantum can be as low as 0.1 MW

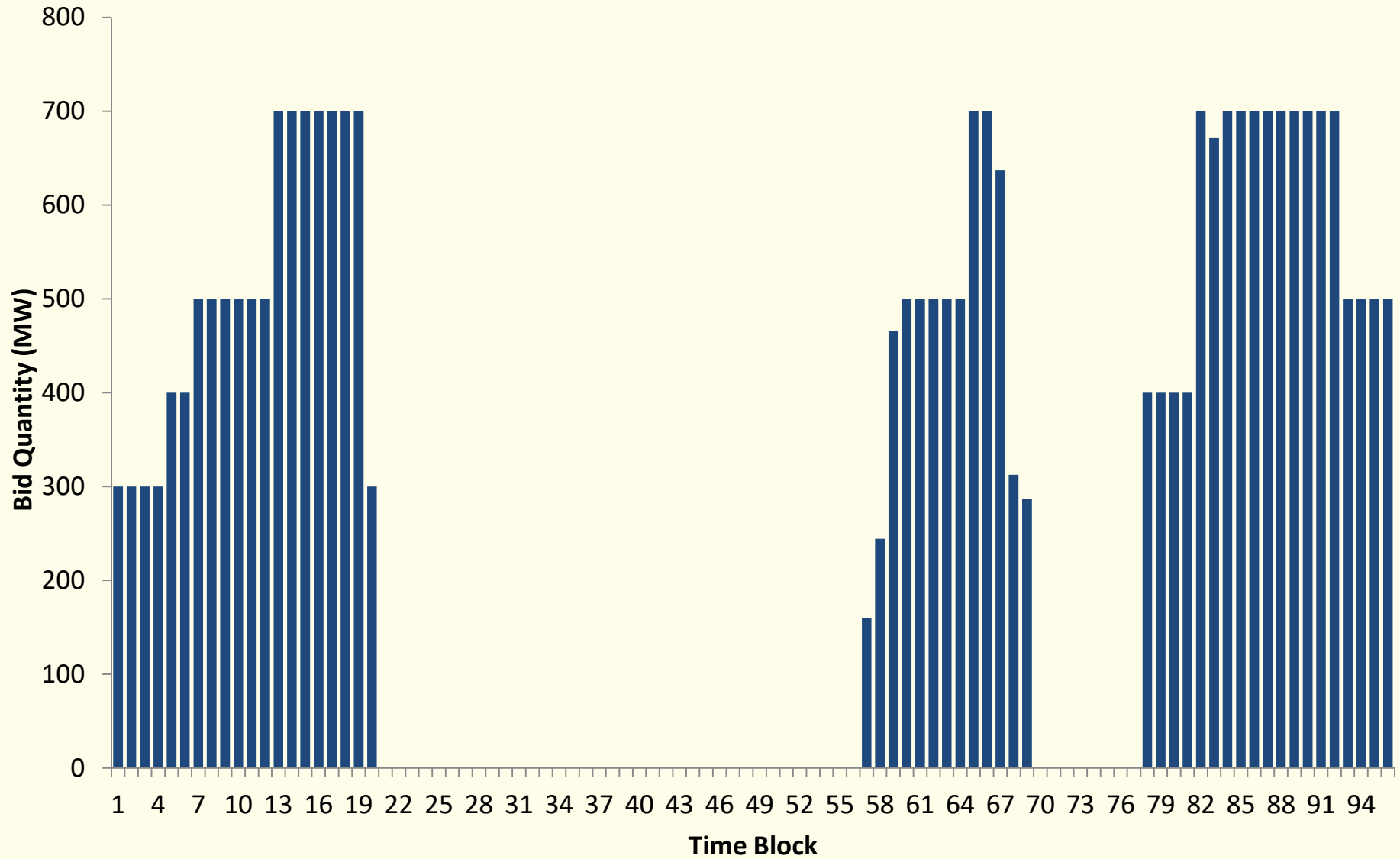
Gujarat Buy Volume for April-18



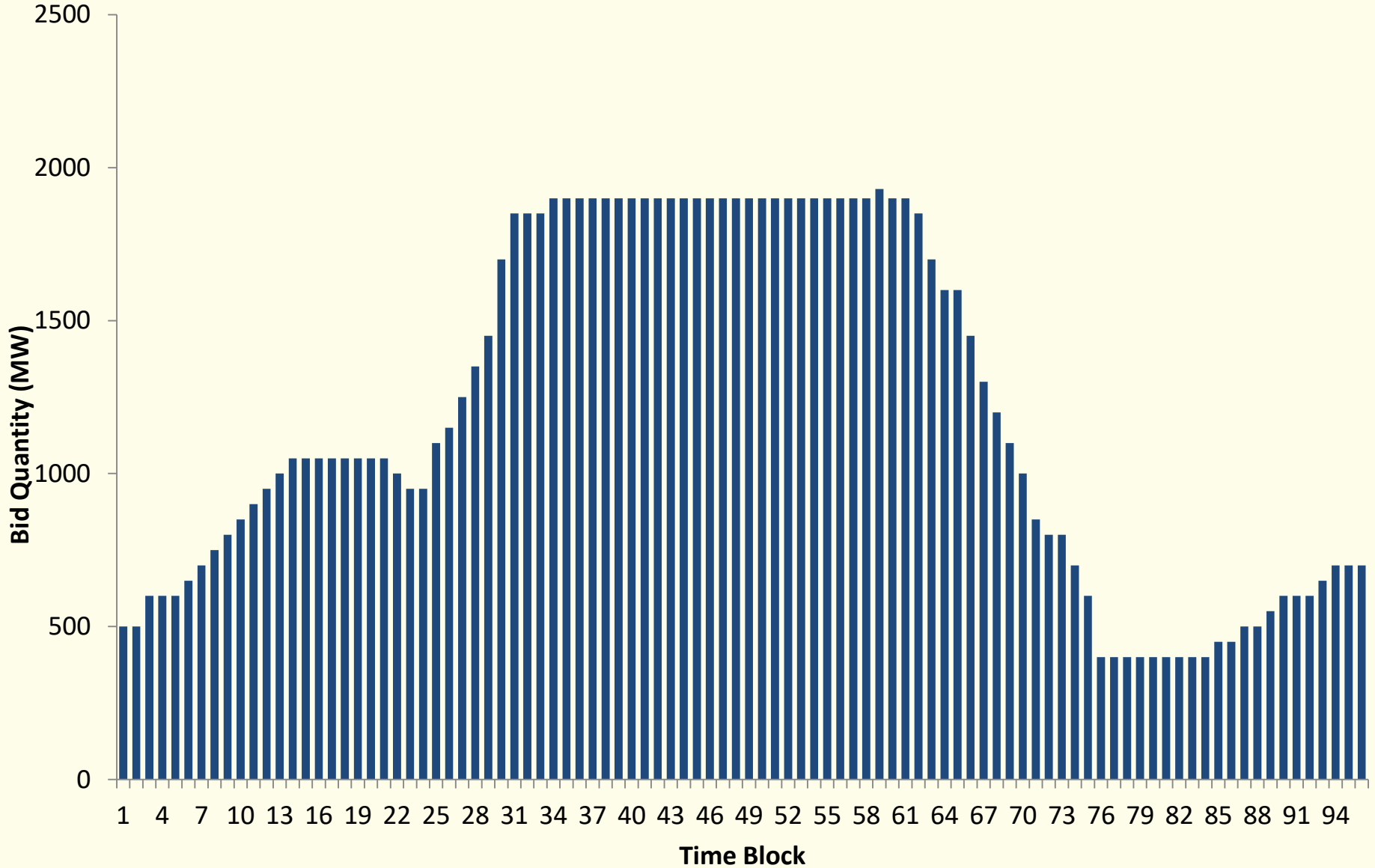
Gujarat Buy Volume on 1st May, 2018



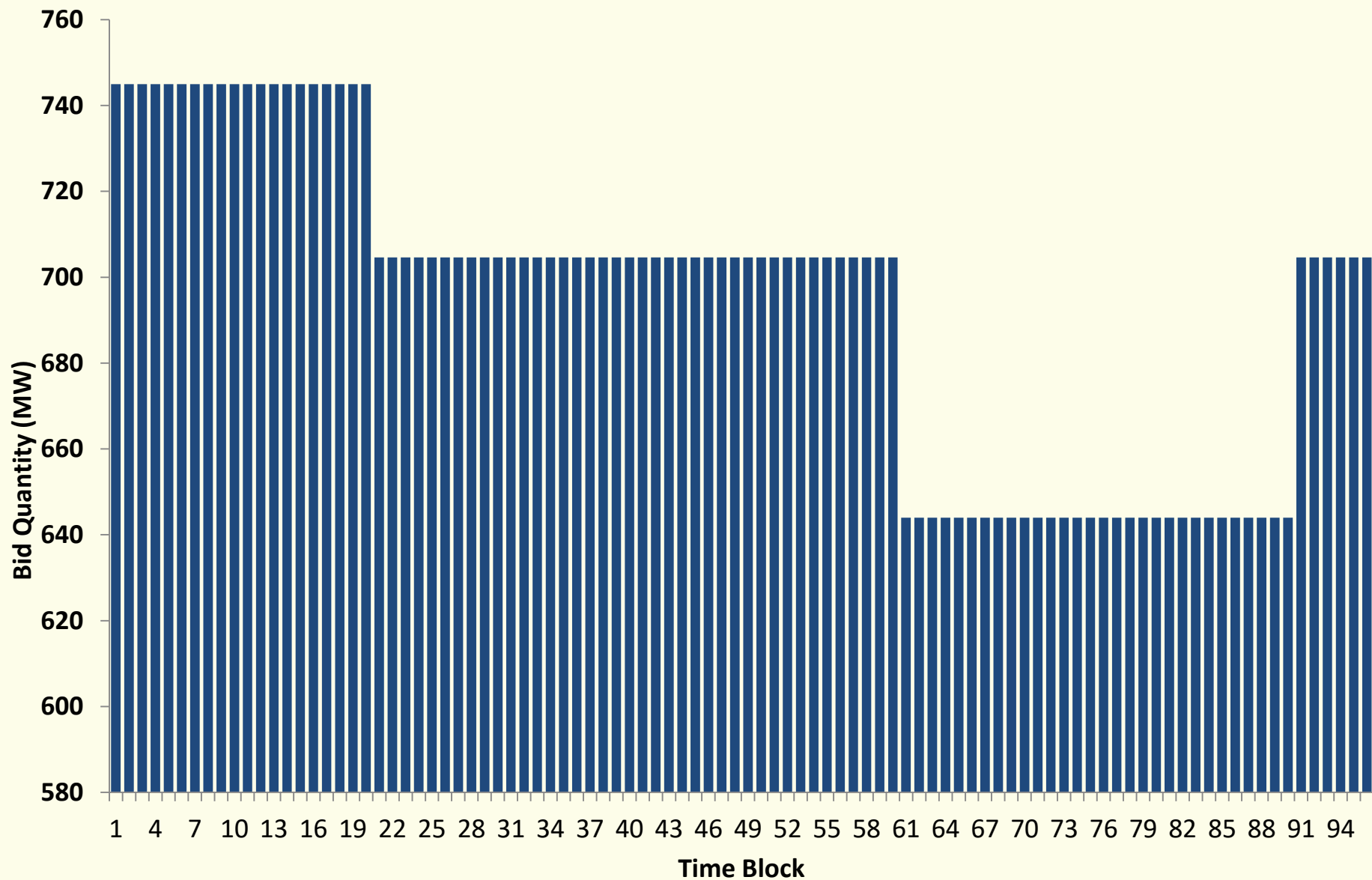
Uttar Pradesh Buy Volume 3rd June, 2018



Telangana Sell Volume on 5th May,18



Sembcorp IPP Sell Volume on 9th Oct,17



Improvement in transmission infrastructure

- With transmission capacity augmentation, the loss in volume due to congestion is expected to be further reduced
- Congested volume reduced from 15% in FY 14 to 0.7% in 9M FY 19
- This gives comfort that power can be purchased when required and will result in less dependence on bilateral agreement. **Bilateral volumes can shift to IEX**

Portfolio Optimization by DISCOMs

- Exchange also gives an option to replace costly PPAs (**Portfolio Optimization**) and flexibility in procurement of power
- Discoms can replace high variable cost power under PPA with Exchange procurement and achieve savings

Phasing out of Old plants

- Phasing out of all vintage and inefficient plants' will shift demand to the short term market

Cross Border Trade

- MOP issued guidelines for Cross Border Trade enabling trade of power through exchanges (DAM & TAM both) with neighboring countries.

Linking DSM with Exchange Price

- CERC notified amendment to DSM regulation, with effective from 1st Jan 2019, linking DSM Price Vector to the daily average Area Clearing Price of Exchange at 50 Hz.

Increased demand will push Discoms to harness short term and exchange markets

Real Time Electricity Market

- CERC has issued a Discussion Paper on “Re-designing Real Time Electricity Markets in India” on 25.07.2018, for starting hourly market on exchange.
- CERC has issued regulation for establishment of National Open Access Registry (NOAR) to facilitate online open access clearance and reduce gate closure time.

New Market Models

- CERC has issued Discussion Paper on ‘Market Based Economic Dispatch of Electricity: Re-designing of Day-ahead Market (DAM) in India’ on 31.12.2018 for scheduling entire country’s generation and power demand through power exchange.
- CERC has issued a Discussion Paper on “Re-designing Ancillary Services Mechanism in India” on 06.09.2018 for exchange based ancillary services

Domestic Coal Allocation

- High level empowered committee constituted by Government of India under the chairmanship of M. P K Sinha, cabinet secretary among other recommendations also recommended allocation of domestic coal to merchant power plants for sale of power in short term market.
- GoI has formed Empowered group of Ministers (EGoM) to examine the recommendations of HLEC w.r.t issues pertaining to stressed assets in power sector. EGoM is being chaired by Finance Minister.

**Forward &
Future Contracts**

- Participants on Power Exchanges in India currently lack hedging options in the form of futures & forwards which are common in global markets.
 - With increased liquidity in the spot market, GoI & regulators have started discussing introduction of forward & future market in electricity. This will be a business opportunity for IEX in the future.
-

Green TAM

- IEX filed petition in CERC for Sale of Renewable Energy in Term Ahead market.
 - Both renewable electricity and green attributes will be sold together
 - Sellers will be able to realize better value
-

Gas Exchange

- MoPNG Minister Mr Dharmendra Pradhan announced intent of the govt. to have a gas trading platform this year.
- Considering the similarity between Electricity and Natural Gas as commodity, IEX is best placed to offer this platform for the Gas Sector.
- IEX is working with the top consulting firms to ensure we are launch ready once conducive framework is in place.

➤ States blocking Open Access

- Increasing CSS by some States
- Additional surcharge introduced in few states such as Rajasthan, HP, Punjab and DNH reducing viability for OA consumers, Non-issuance of NoC

With separation of content and carriage as expected in EA Amendment, tariff and non tariff barriers on Open Access are expected to reduce

➤ DEEP Platform offering competitive prices

- E-bidding portal (DEEP) launched by Gol to facilitate short term procurement of power by DISCOMS

IEX prices still more competitive, there is more flexibility on Exchange for power purchase

➤ Low liquidity in Term Ahead Products at IEX.

- Volumes traded in Intra Day, DAC and other TAM products is low. Growth in TAM is 44% YoY in 9M FY 19

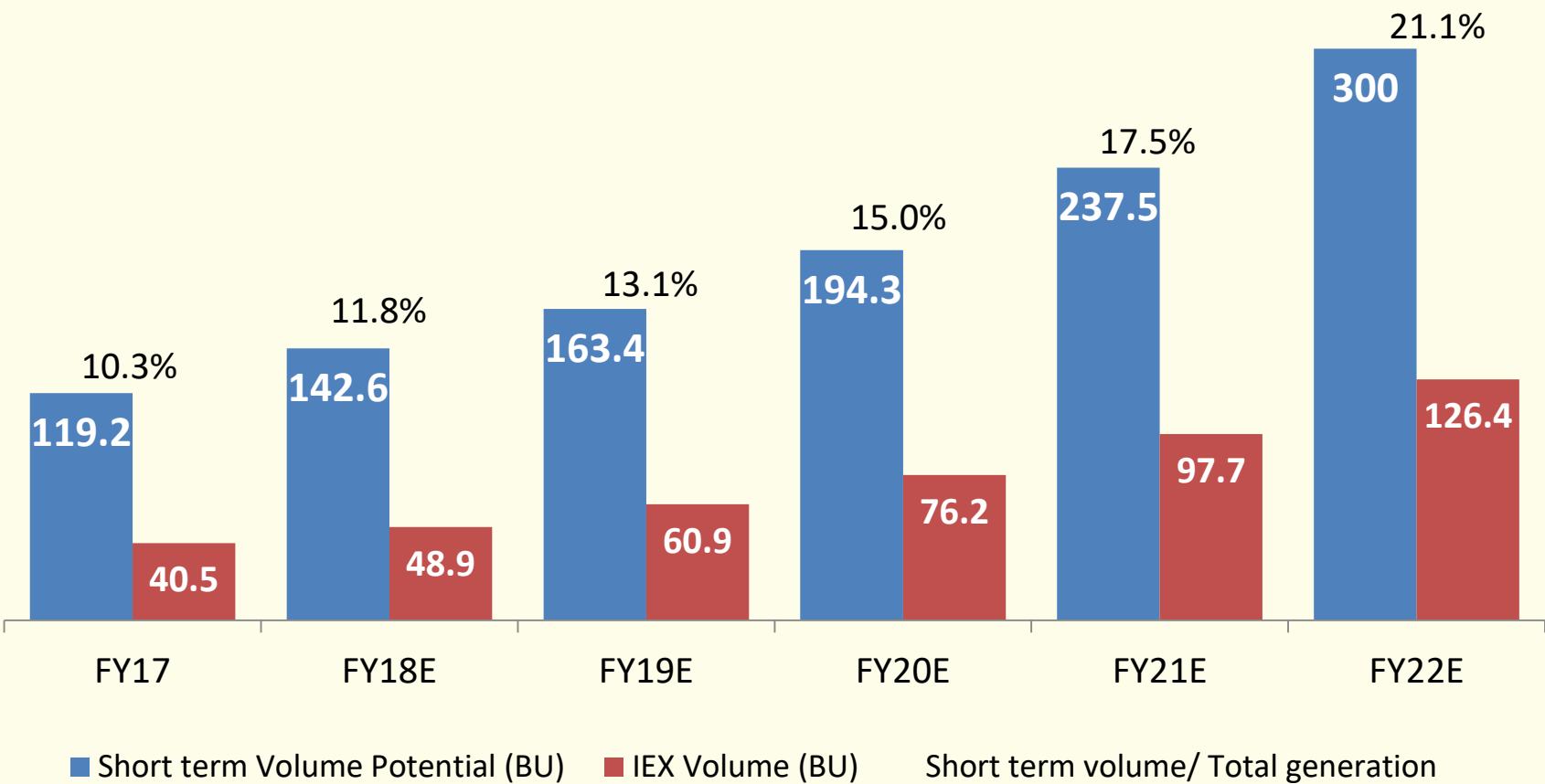
At present gate closure is 3 hours. Internationally, gate closure is half hour. CERC has issued discussion paper on Re-designing Real Time Electricity Markets in India. Liquidity will increase with reduced gate closure

➤ Coal Availability

- Availability of coal under e-auction for merchant generators reduced over 35% Y-o-Y from 68.27 MT to 44.17 MT

Coal production in the country increased by 7.5% Y-o-Y in 9M FY19. Gol considering allocation of domestic coal to merchant power plants for sale of power in short term market

CRISIL Short-term power market forecast (in billion units / percentage)



Source: CRISIL

FINANCIALS

(Rs. in Crs)

Particular	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18
Revenue	71	139	174	177	200	233	256
Operating Expenditure	19	33	38	41	50	55	46
Operating Profit (EBITDA)	52	106	136	136	150	178	210
EBITDA	73	76	78	77	75	76	82
PBT	48	93	133	133	147	174	200
PAT	34	66	92	90	100	114	132

Note-

- Financials results up to FY 2015-16 are audited as per I-GAAP and FY 2016-17 & FY 2017-18 are audited as per Ind AS.
- Dividend of RS 22/ share declared for the FY 18 ; Cash outflow is 80 (incl. DDT) of total profit

(Rs. in Crs)

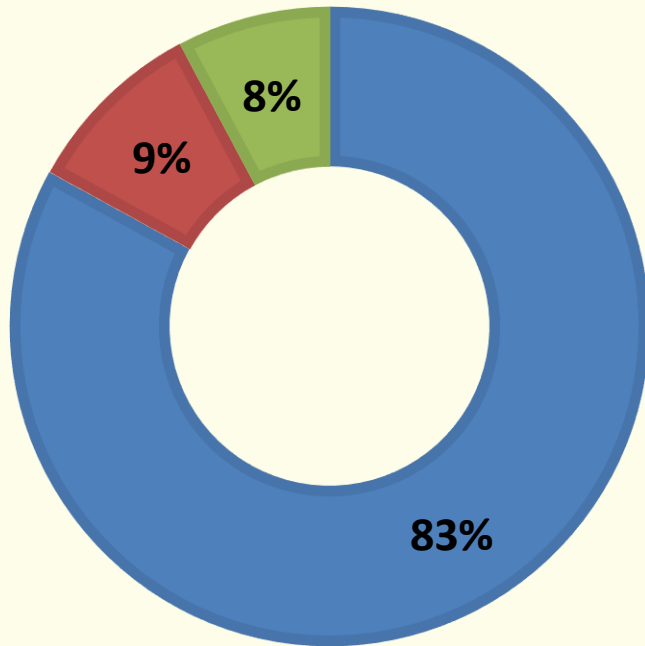
Particulars	Quarter Ended		
	Dec'18	Dec'17	Y-o-Y (%)
Total Revenue	76.92	70.21	10
Operating Expenses	14.90	12.22	22
EBITDA	62.02	57.99	7
EBITDA Margin (%)	81	83	-1.97
PBT	59.31	54.95	8
Tax	16.69	18.75	-11
PAT	42.62	36.20	18
Cash Profit	45.27	39.17	16
EPS* (Not Annualized)			
- Basic (Rs.)	1.41	1.20	18
- Diluted (Rs.)	1.41	1.20	18

(Rs. in Crs)

Particulars	Quarter Ended		
	Dec'18	Dec'17	Y-o-Y (%)
<u>Revenue</u>			
Transaction Fees	58.98	58.28	1
Admission & Annual Fees	4.82	6.47	-26
Other Income	13.12	5.46	140
Total revenue	76.92	70.21	10
<u>Expenses</u>			
Employee benefits	6.63	7.46	-11
Other expenses	7.53	3.93	92
CSR Expenses	0.74	0.83	-11
Finance costs	0.06	0.07	-14
Depreciation & amortization	2.65	2.97	-11
Total expenses	17.61	15.26	15
Profit before tax (PBT)	59.31	54.95	8
Total Income Tax Expense	16.69	18.75	-11
Profit After Tax (PAT)	42.62	36.20	18

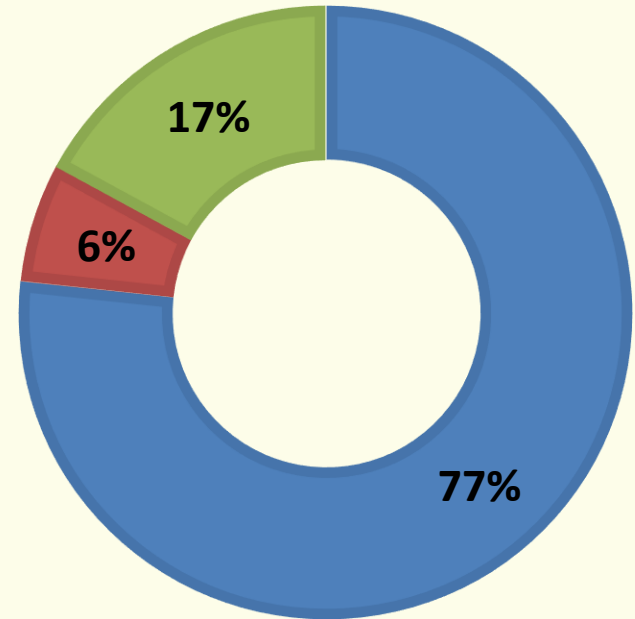
FY18

■ Transaction Fees ■ Admission & Annual Fees ■ Other Income



FY19

■ Transaction Fees ■ Admission & Annual Fees ■ Other Income



(Rs. in Crs)

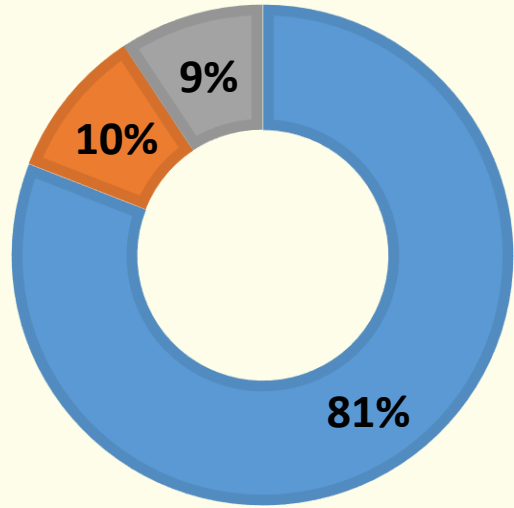
Particulars	9M Ended		
	Dec'18	Dec'17	Y-o-Y (%)
Total Revenue	226.32	193.21	17
Operating Expenses	39.57	33.93	17
EBITDA	186.75	159.28	17
EBITDA Margin (%)	83	82	.08
PBT	178.71	151.76	18
Tax	51.53	51.52	
PAT	127.18	100.24	27
Cash Profit	135.05	107.58	26
EPS* (Not Annualized)			
- Basic (Rs.)	4.22	3.42	23
- Diluted (Rs.)	4.21	3.32	27

(Rs. in Crs)

Particulars	9M Ended		
	Dec'18	Dec'17	Y-o-Y (%)
Revenue			
Transaction Fees	182.45	156.38	17
Admission & Annual Fees	15.18	18.88	-20
Other Income	28.69	17.95	60
Total revenue	226.32	193.21	17
Expenses			
Employee benefits	18.66	17.92	4
Other expenses	19.39	15.06	29
CSR Expenses	1.51	0.95	59
Finance costs	0.18	0.18	
Depreciation & amortization	7.87	7.34	7
Total expenses	47.61	41.45	15
Profit before tax (PBT)	178.71	151.76	18
Total Income Tax Expense	51.53	51.52	
Profit After Tax (PAT)	127.18	100.24	27

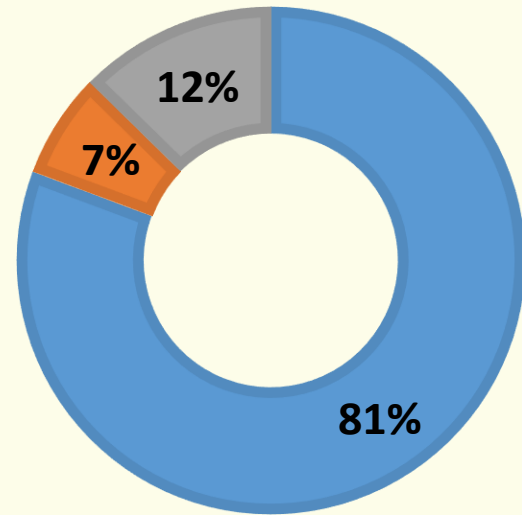
FY18

■ Transaction Fees ■ Admission & Annual Fees ■ Other Income



FY19

■ Transaction Fees ■ Admission & Annual Fees ■ Other Income



S. No.	Name of Shareholder	% of Total Equity Share Capital
1	TVS SHRIRAM GROWTH FUND 1B LLP	15.00
2	DCB POWER VENTURES LIMITED	10.00
3	AGRI POWER AND ENGINEERING SOLUTIONS PRIVATE LIMITED	4.99
4	WESTBRIDGE CROSSOVER FUND, LLC	4.75
5	SMALLCAP WORLD FUND, INC	4.53
6	RIMCO (MAURITIUS) LIMITED	4.50
7	RURAL ELECTRIFICATION CORPORATION LTD	4.12
8	SIGULER GUFF NJDM INVESTMENT HOLDINGS LTD	3.02
9	LIGHTSPEED VENTURE PARTNERS VIII MAURITIUS	3.00
10	INDIA BUSINESS EXCELLENCE FUND IIA	2.68
11	Others	43.42
	TOTAL	100.00

AWARDS & ACCOLADES

- ✓ **“Best Power Exchange” - 2018**
IPPAI
- ✓ **“Investor Relations Award 2018 - Best IPO in Mid Cap Segment”**
IR Society of India
- ✓ **“Best CFO Award in 100-500 turnover category”- 2018**
The Financial Express
- ✓ **“Leaders in Power Market Development”- 2014 | 2015**
Council of Power Utilities
- ✓ **“Exchange of the Year”- 2014**
Power Business View, a First View Group Venture
- ✓ **“Best Performing Power Exchange - 2014**
India Power Award
- ✓ **“Best Power Exchange in India” – 2012 | 2013 | 2014 | 2015| 2018**
Enertia Foundation
- ✓ **“Best Performing Power Trading Company/Exchange” – 2012 | 2013 | 2014**
Power line
- ✓ **“Innovators in Product and Technology”- 2013 | 2014**
Inc. India
- ✓ **“Best E- Enabled Consumer Platform” - 2009**
Inc. India



THANK YOU