



Dated: August 29, 2018

**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

Dear Sir / Madam,

Pursuant to Regulation 30 of the SEBI (LODR) Regulations, 2015, please find attached updated Investor presentation to be discussed during investor/Analyst meetings.

This is for your information and records.

Thanking You

Yours faithfully,

For **Indian Energy Exchange Limited**



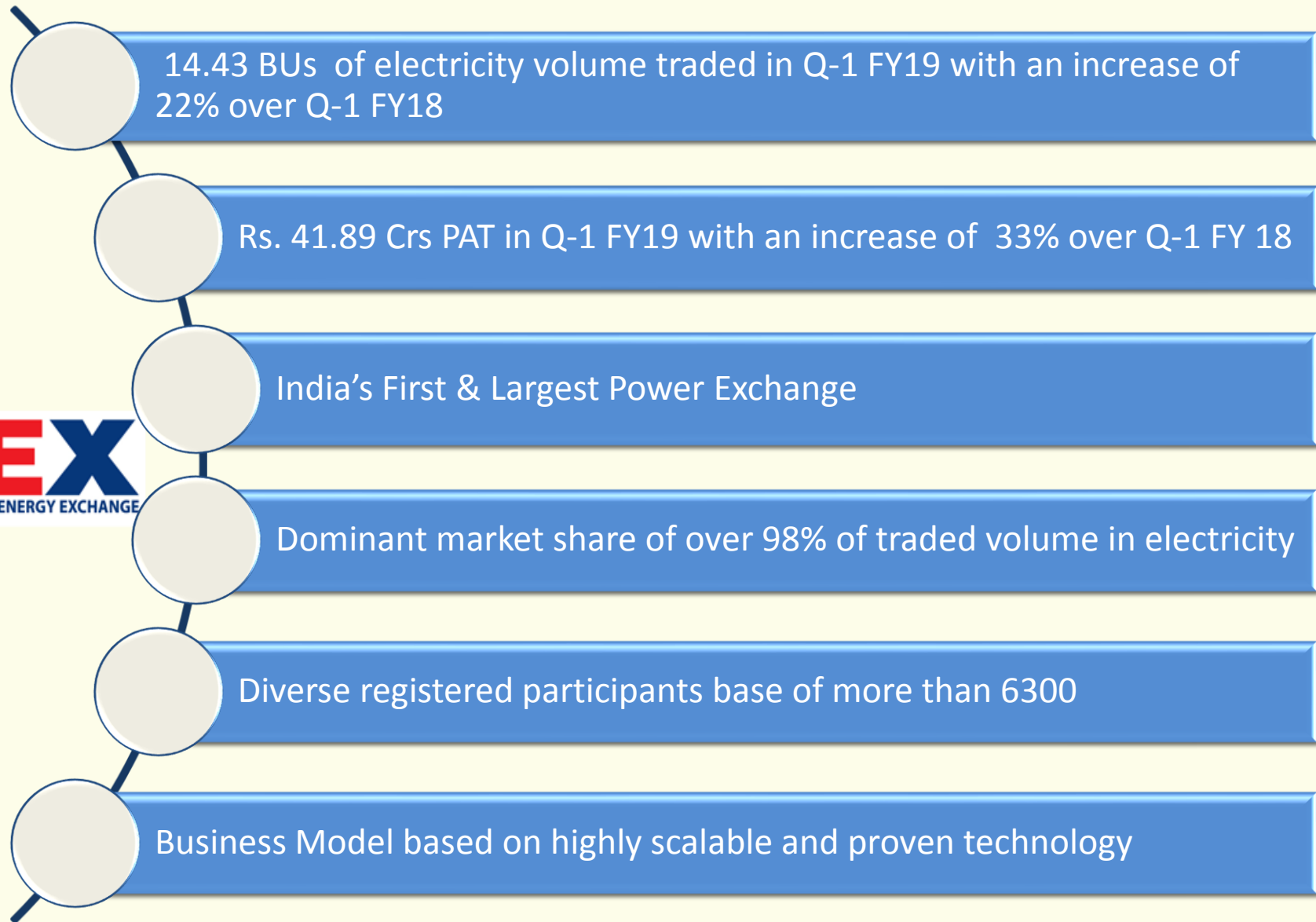
Vineet Harlalka

Company Secretary & Compliance Officer



Investor Presentation

AUGUST 2018



- 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**



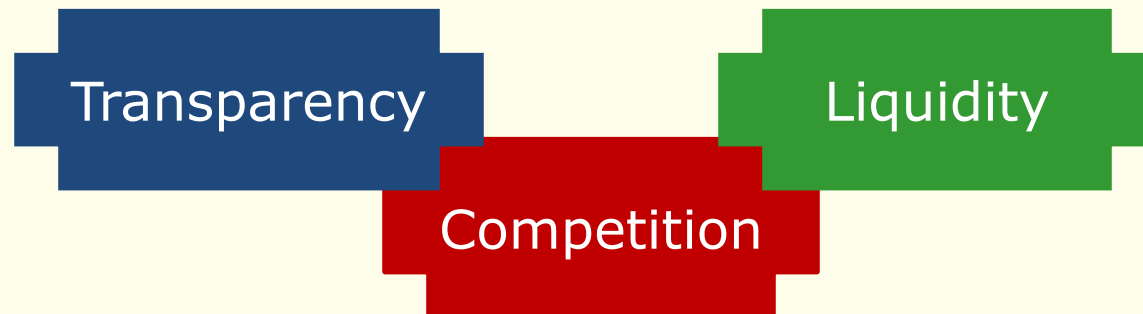
➤ Market Share: **98%**

➤ Average daily trade: **5000+ MW**

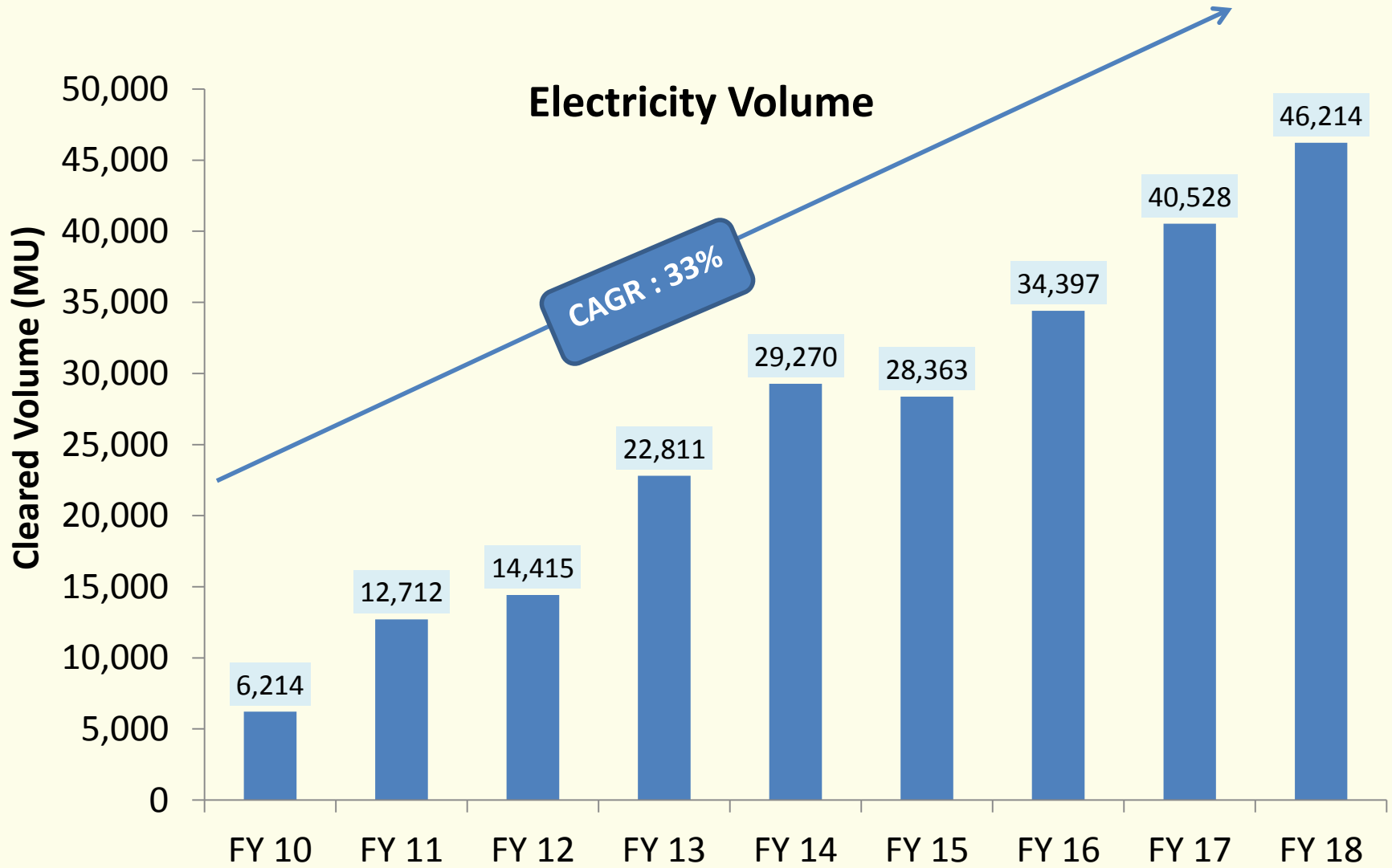
➤ High Participation: **6300+**

4000+ Industries | **55** Discoms (all) | **100+** ESCert Entities

480+ 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> 



Source: IEX Data (DAM+TAM)

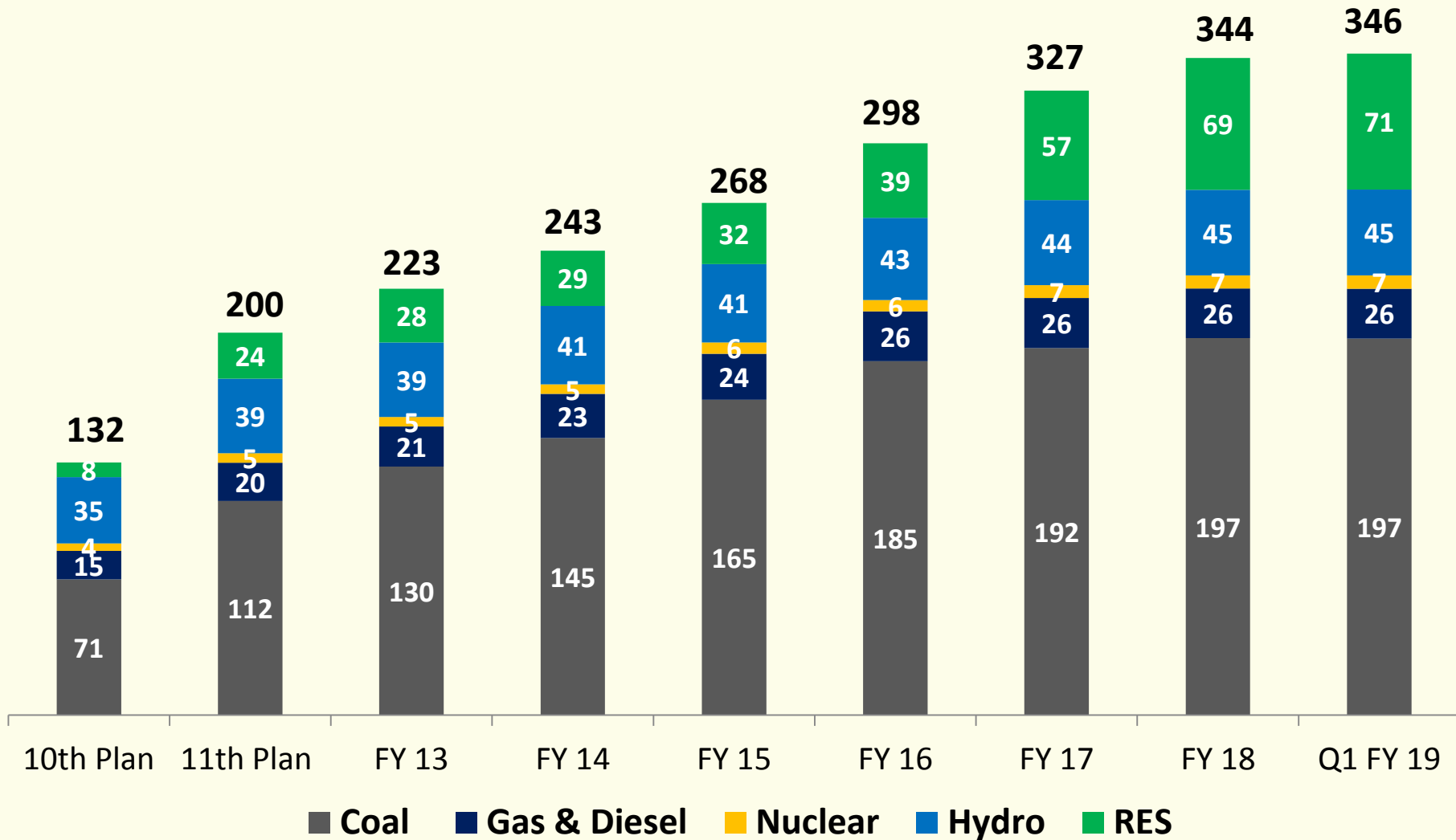
SECTOR OVERVIEW & IMPACT ON POWER EXCHANGE

Generation

Transmission

Distribution

Installed Generation Capacity of India (All figures in GW)

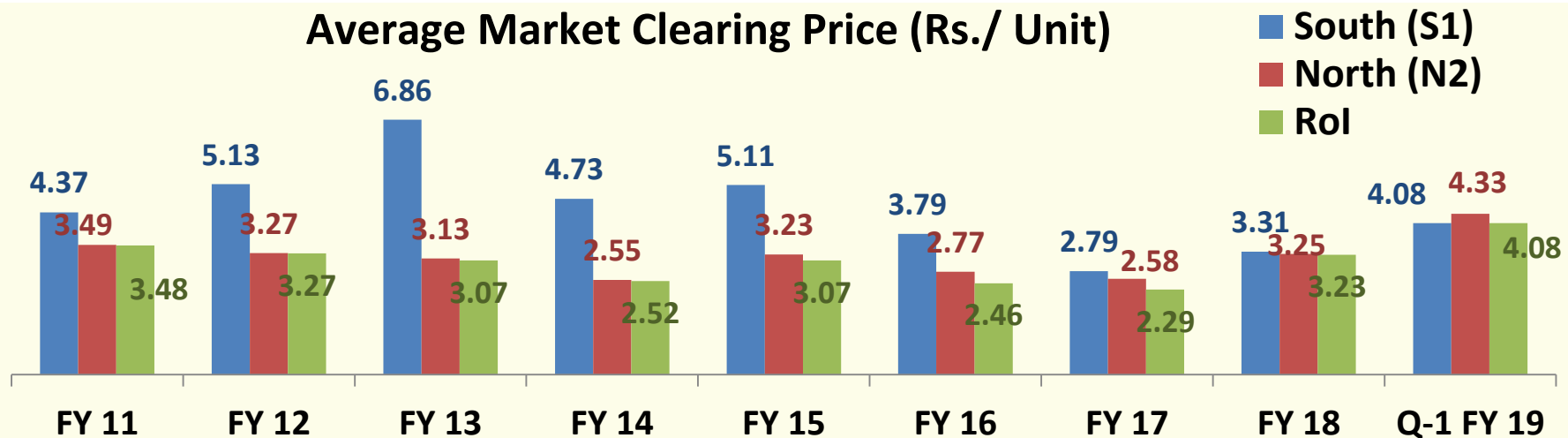


Category	Installed Capacity (MW)	PLF	Generation (BUs) FY-18	Feasible PLF	Possible Generation (BUs)
Coal	197172	60%	986	80%	1382
Gas	24897	23%	50	20%	44
Diesel	838	3%	0.24	0%	0
Hydro	45293	32%	126	33%	131
Nuclear	6,780	64.5%	38	80%	48
RE	69022	17%	102	18%	109
Total	344,002		1302		1713

- **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)

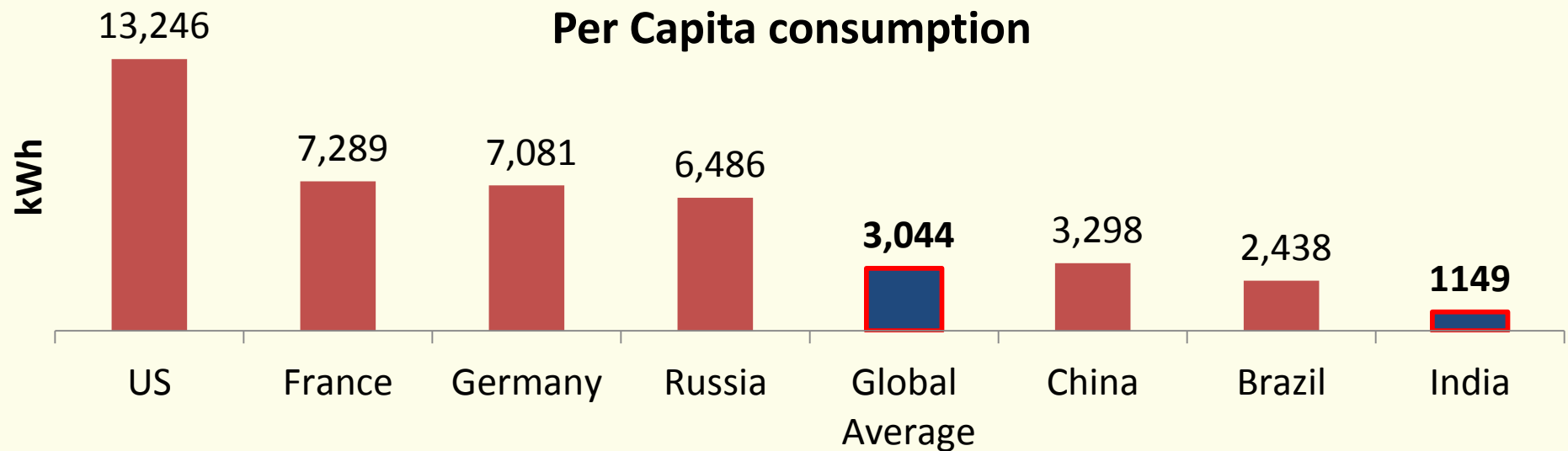


FY	Market Clearing Volume (MU)	Cleared volume (MU)	Curtailed Volume (MU)	Curtailement (%)
FY 14	34,230	28,925	5,305	15.5%
FY15	31,227	28,141	3,086	9.9%
FY16	36,210	34,067	2,143	5.9%
FY17	41,310	39,830	1,480	3.6%
FY18	45,121	44,925	196	0.4%
Q-1 FY19	14,013	13,937	76	0.5%

- 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 8% and 5% respectively in Q-1 FY-19 over Q-1 FY-18
- In Q-1 FY 19 states like Punjab(33%), Meghalaya(22%), Andhra Pradesh(15%), West Bengal(14%), Rajasthan (13%), Telangana(12%), Bihar(12%) and Odisha(10%) witnessed very high growth in peak demand

Increase in demand is helping short term market grow



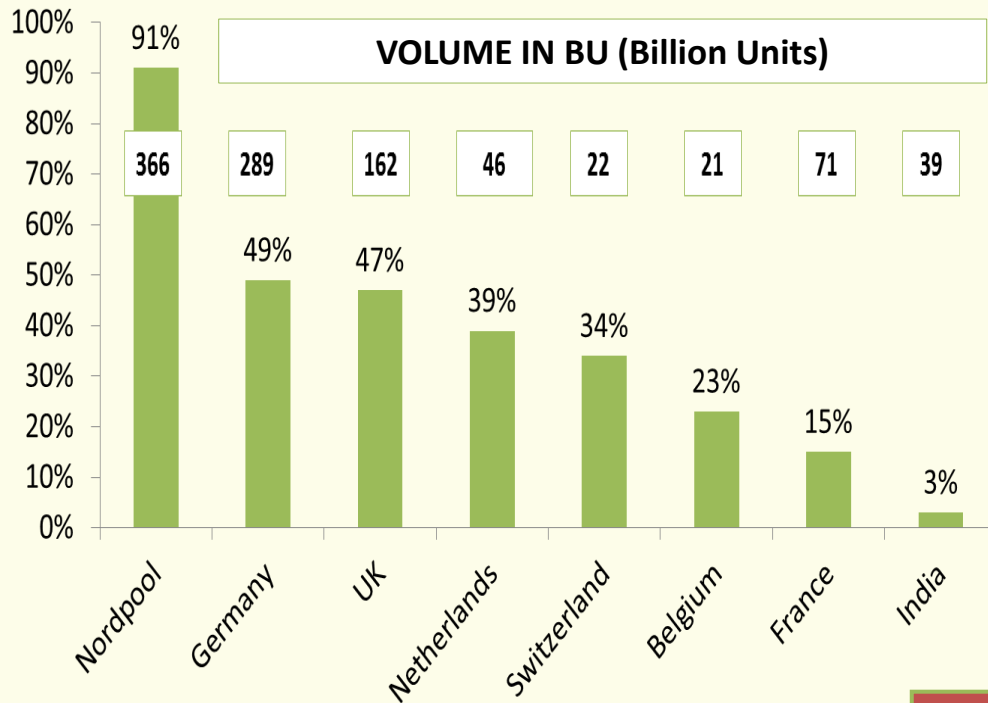
- With expected thrust on economic and industrial development and 24/7 power supply, Per Capita consumption bound to increase

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

Power Exchange across Globe:

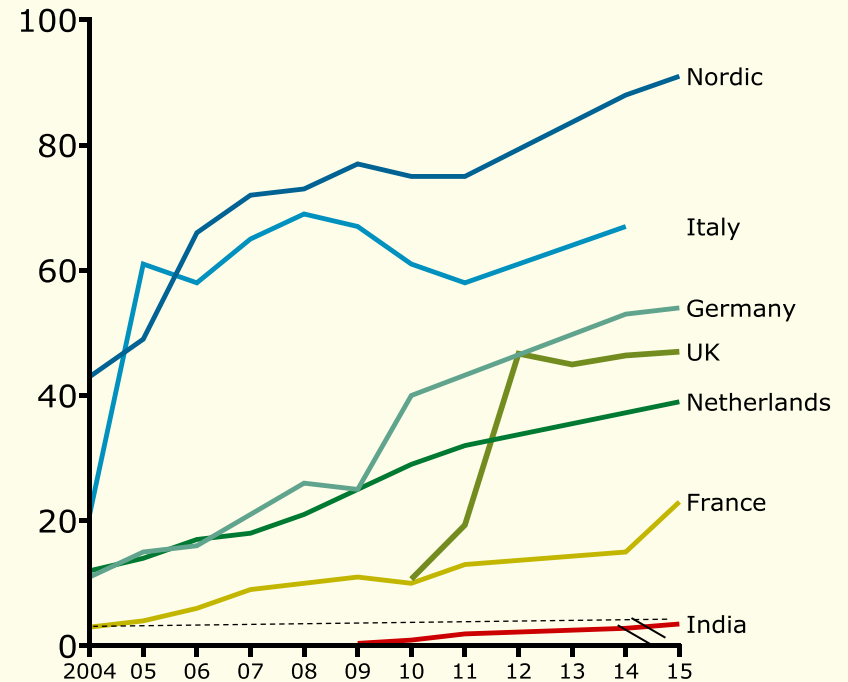
Enormous potential to grow for India compared to international benchmarks

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



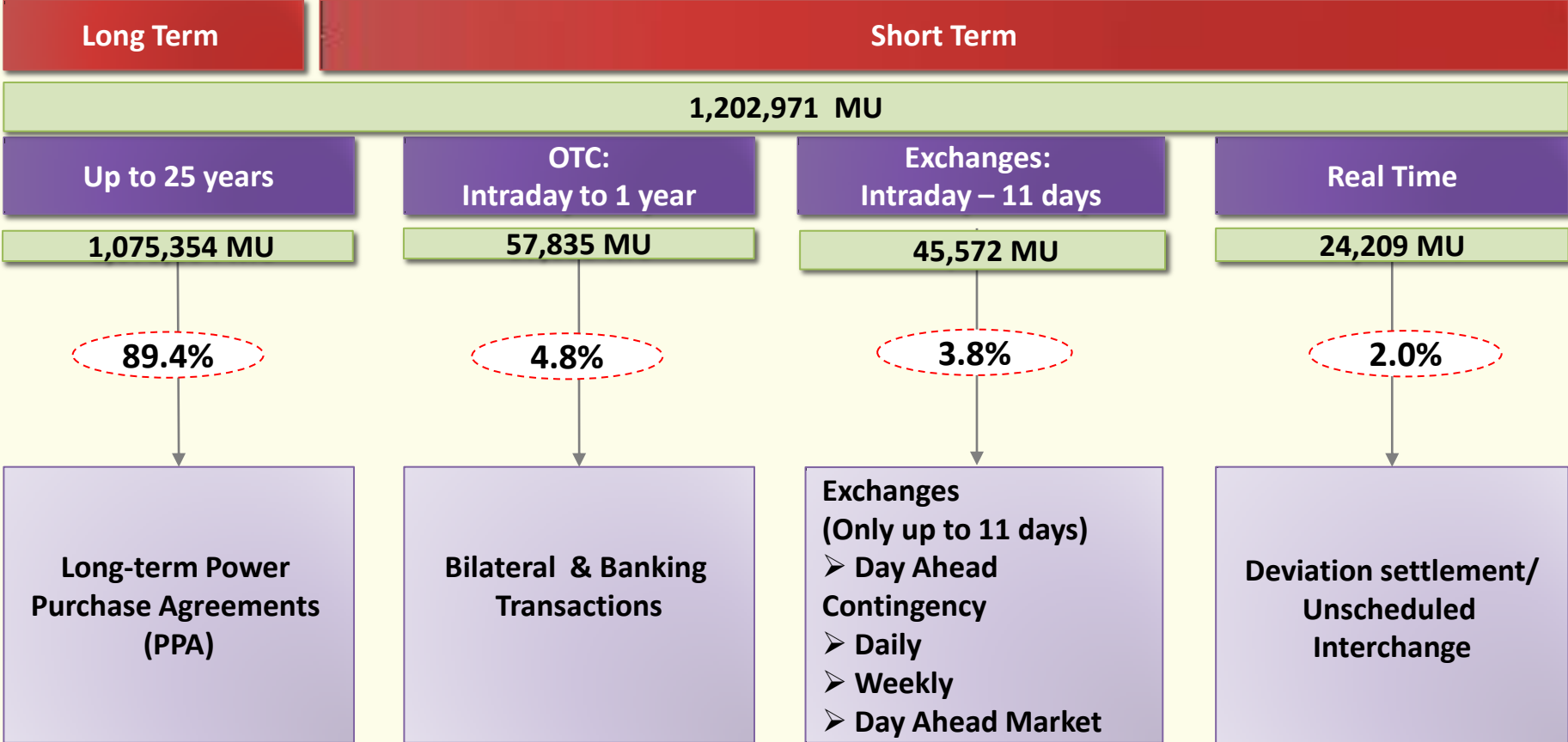
GLOBAL BENCHMARKS ON PENETRATION OF ST MARKETS

Exchange traded (% total consumption)



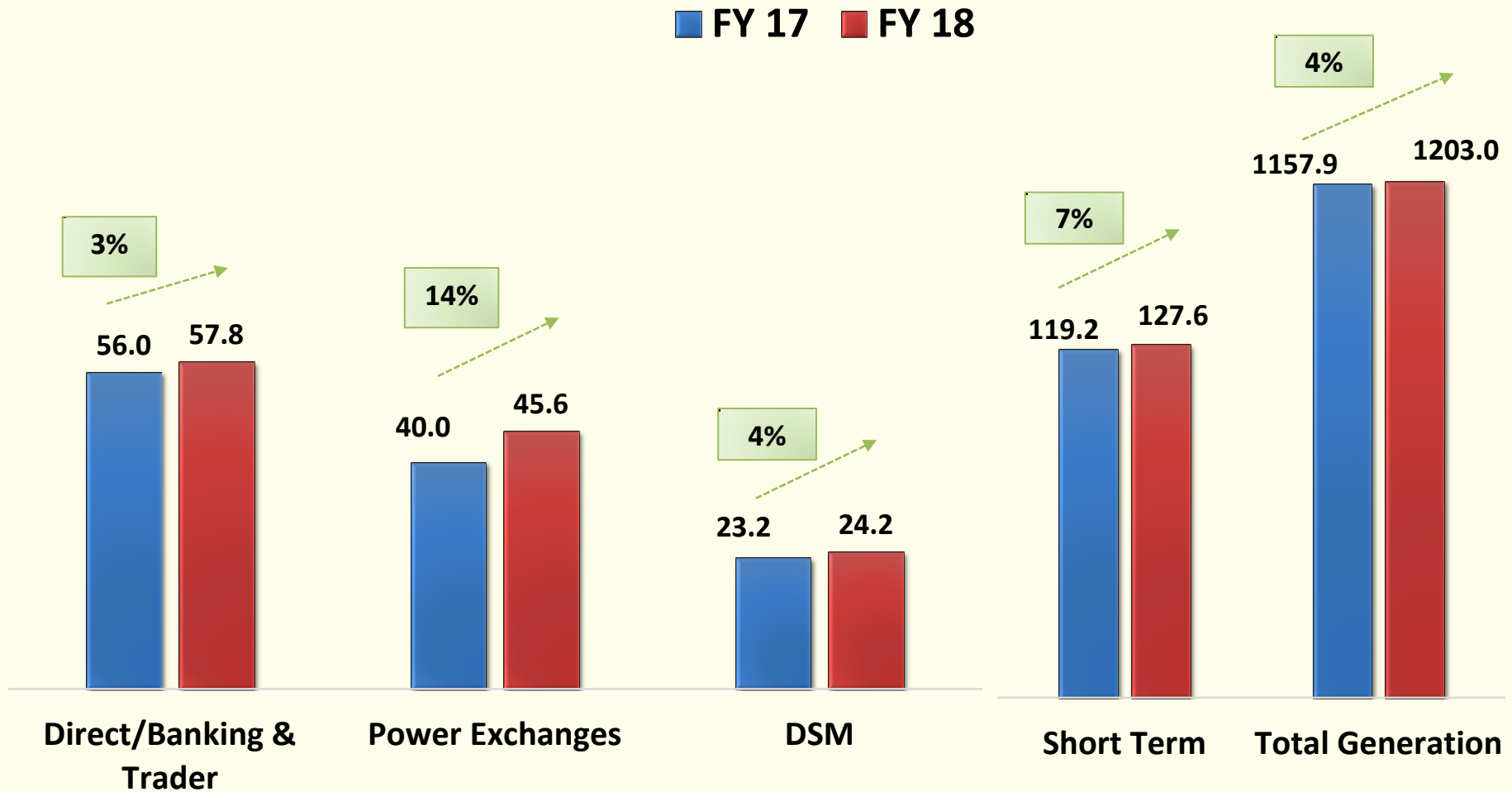
Indian markets still at a nascent stage and high potential for growth for the Indian Power Exchanges

MARKET SNAPSHOT

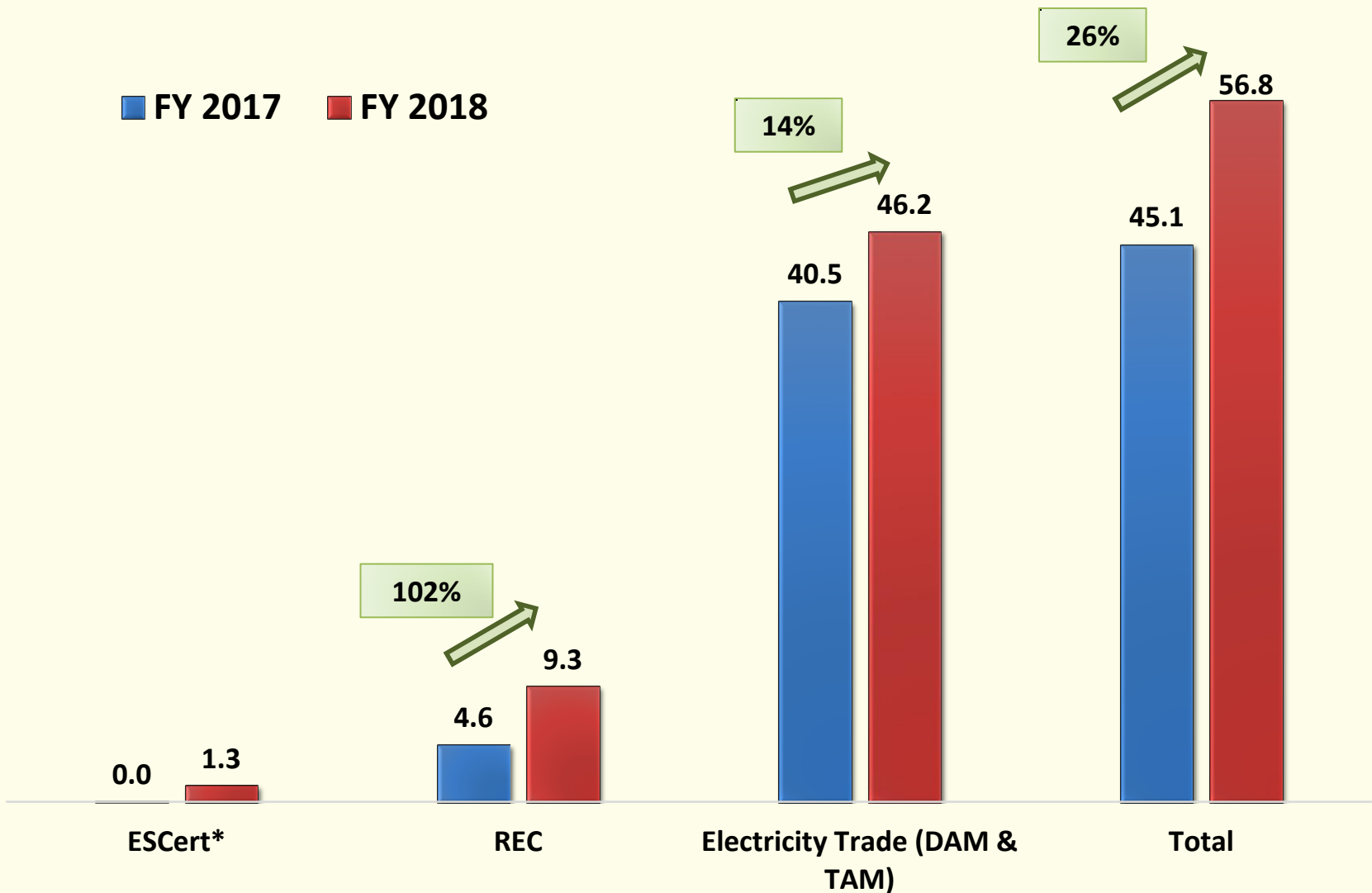


Short Term Power market is at 10.6 %, Power Exchange volume in the segment have been growing significantly

All values for FY18

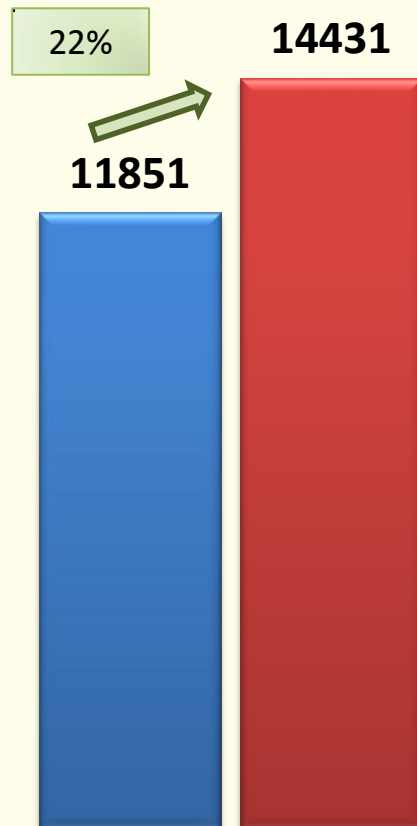


Overall generation in the country, increased by 5.32% in FY 18

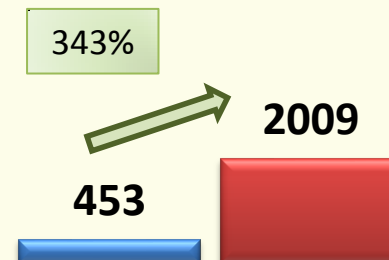


*Note – Energy Saving Certificates (Escerts) trading started from September 2017 on IEX Ltd.

■ Q1_FY 18 ■ Q1_FY 19



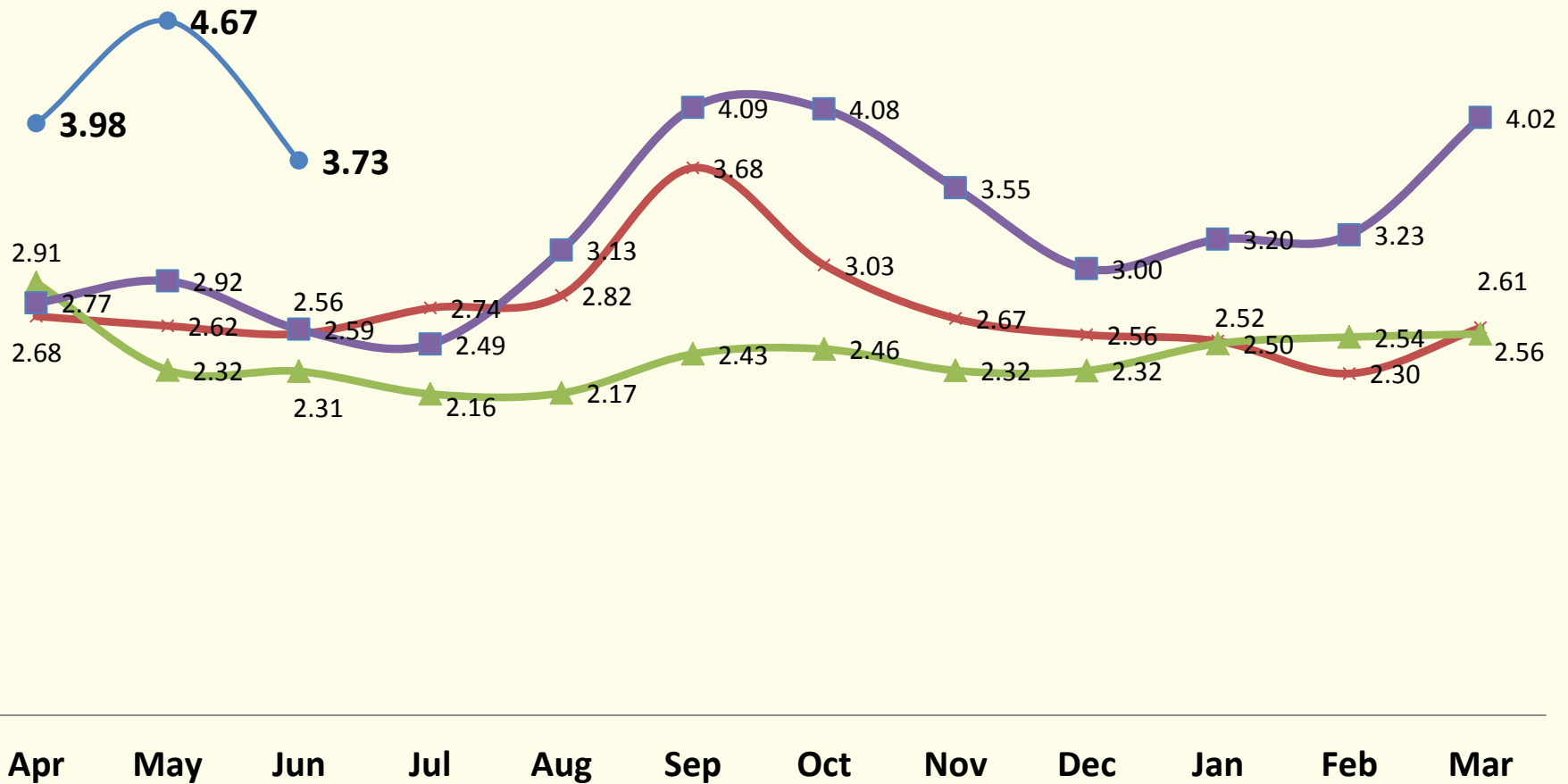
DAM & TAM (In MUs)



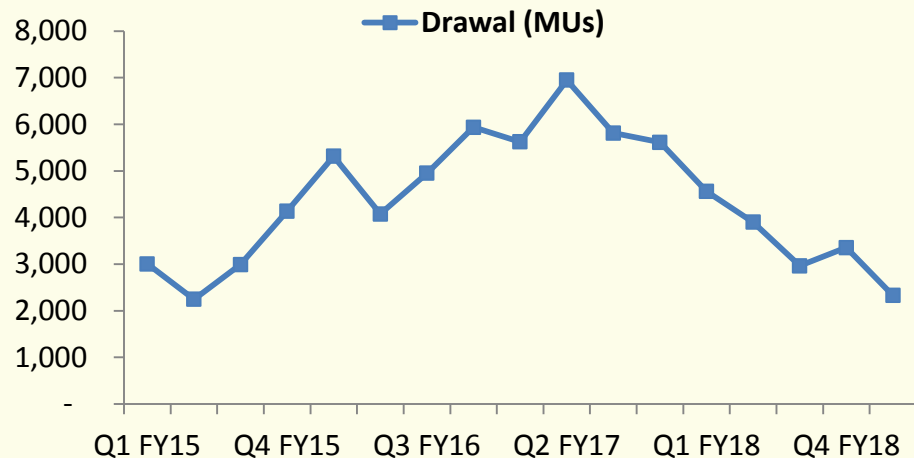
REC (In '000)

*Note – Trading in Energy Saving Certificates (Escerts) will commence post completion of PAT Cycle 2 in FY 19.

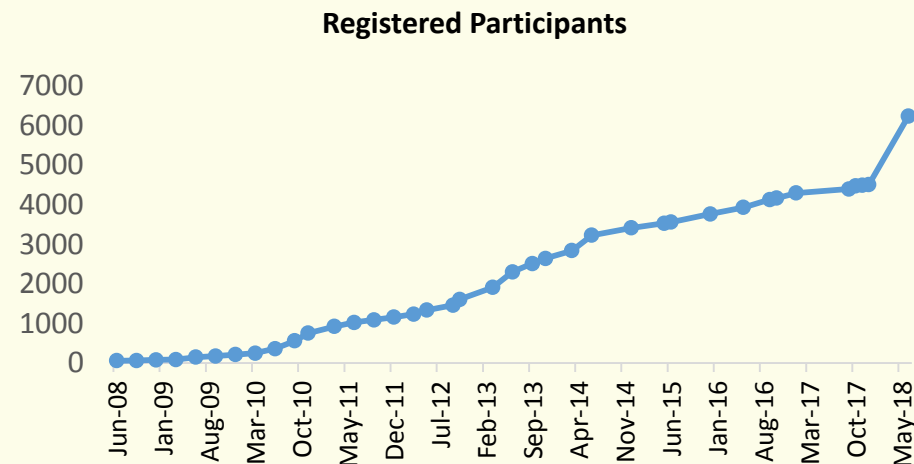
—x— FY16 : 2.73
 —▲— FY17 : 2.42
 —■— FY18 : 3.26
 —●— Q-1FY19 : 4.13



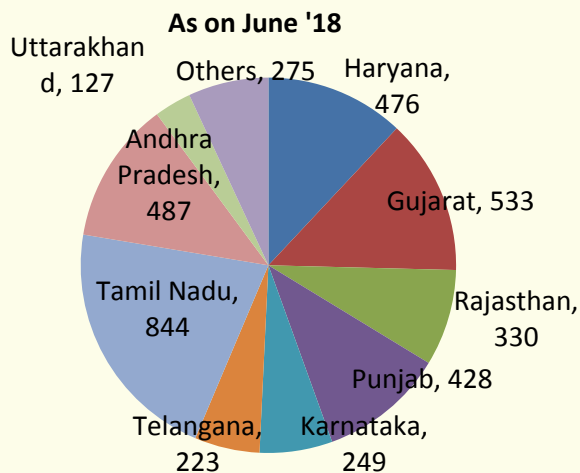
Price Sensitive Open Access Volumes



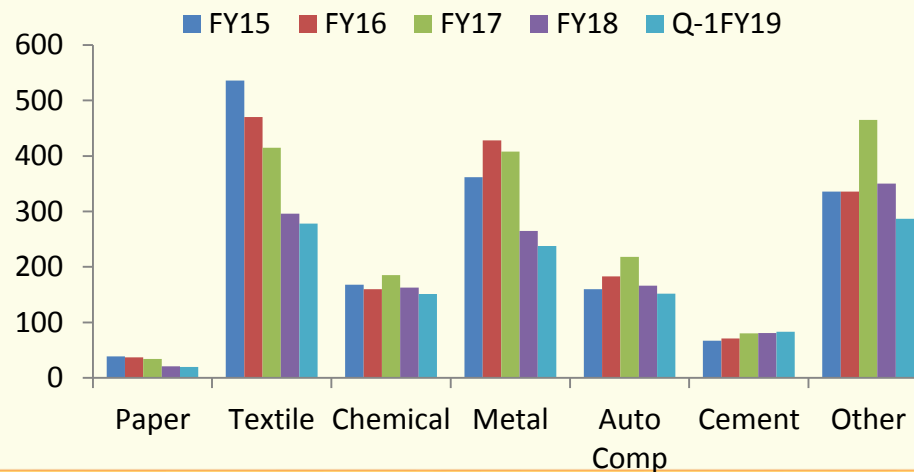
Registered participants has been growing



Open Access Consumers Present Across States



And Spread Across Industries



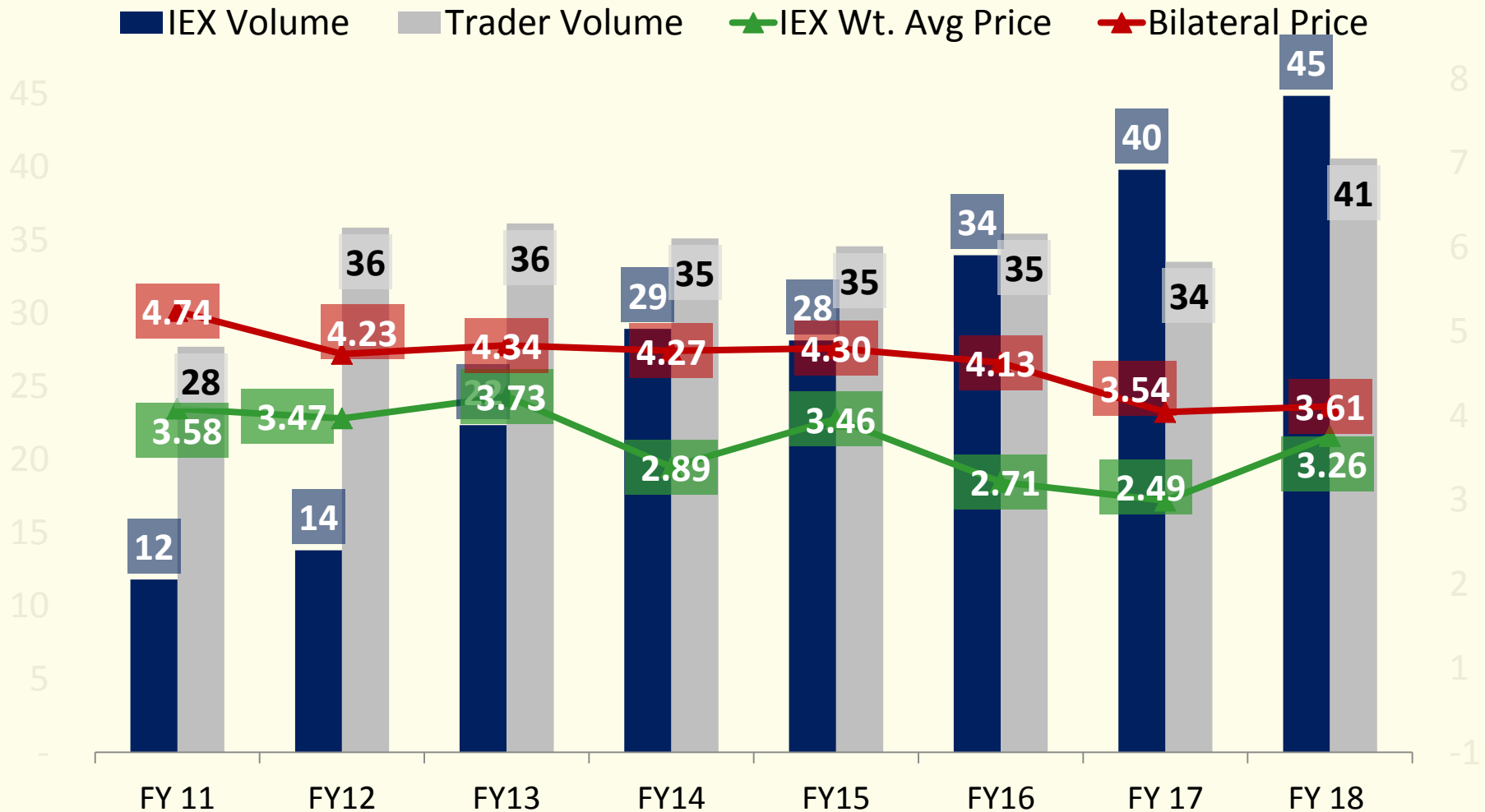
Participation has shown significant growth over the years

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



Source: CERC MMC Reports

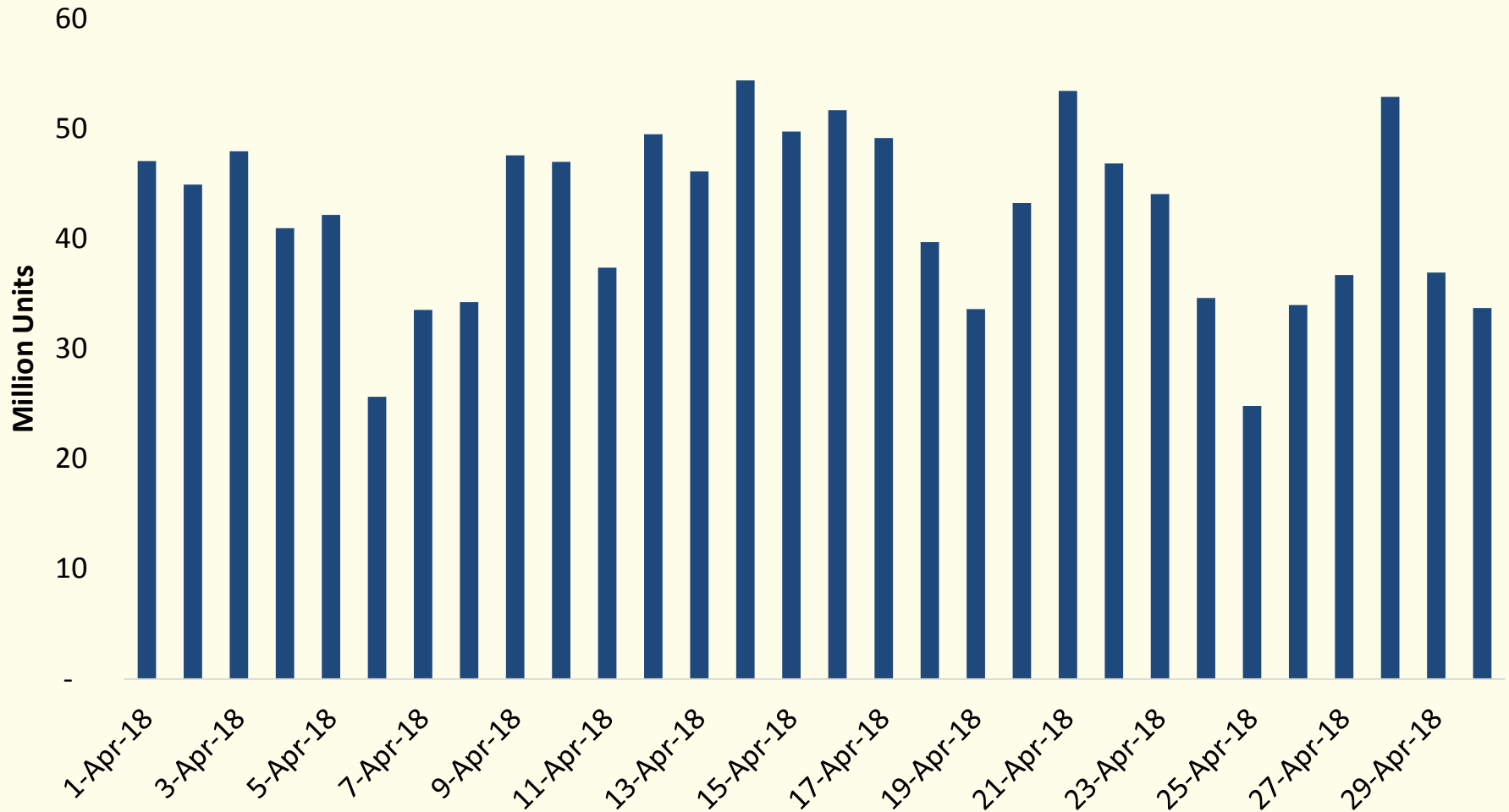
* Note – Data for Apr18 & May 18 as per published CERC MMC Reports

Flexibility

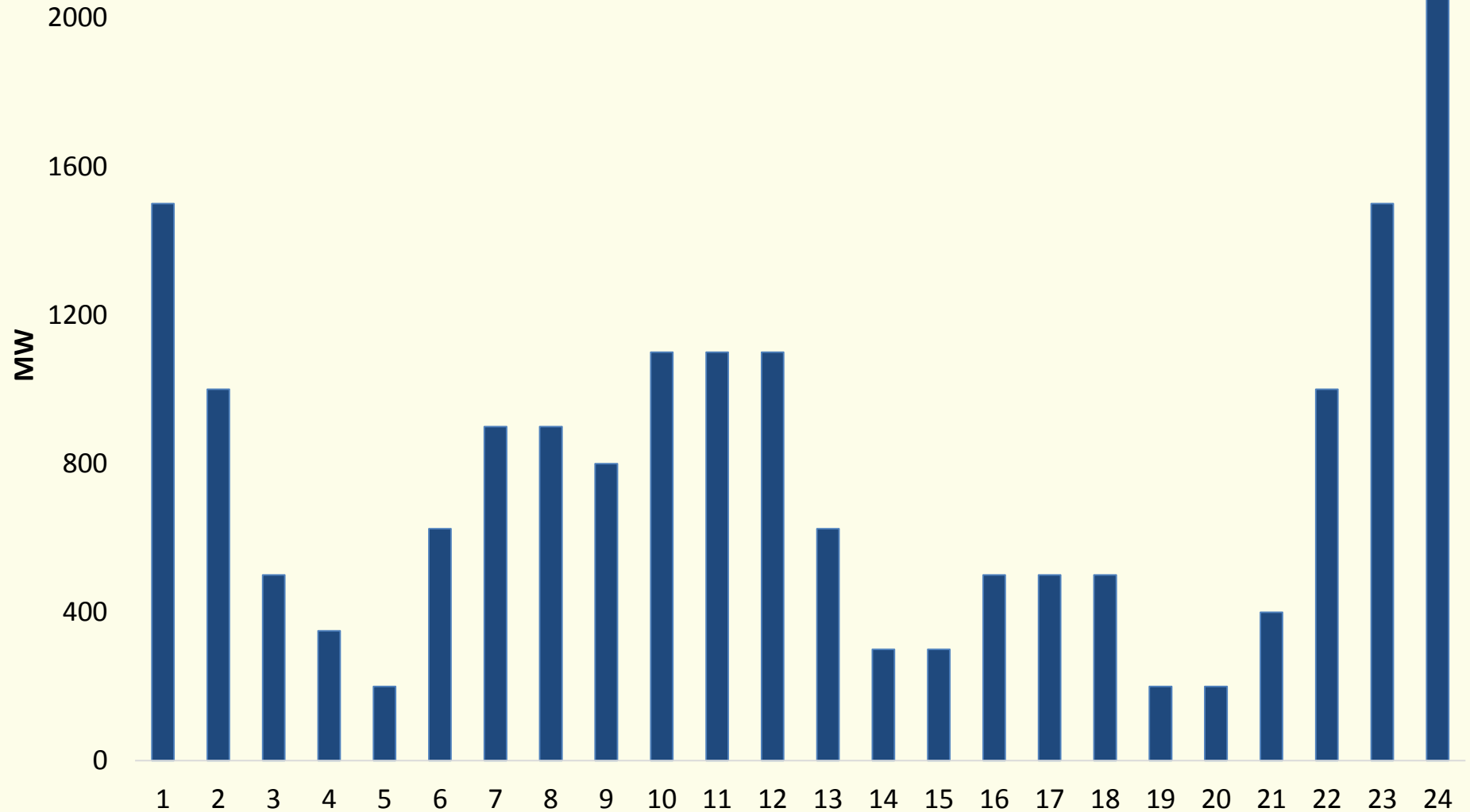
Exchange provides flexibility to purchase power as per requirement throughout the year

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

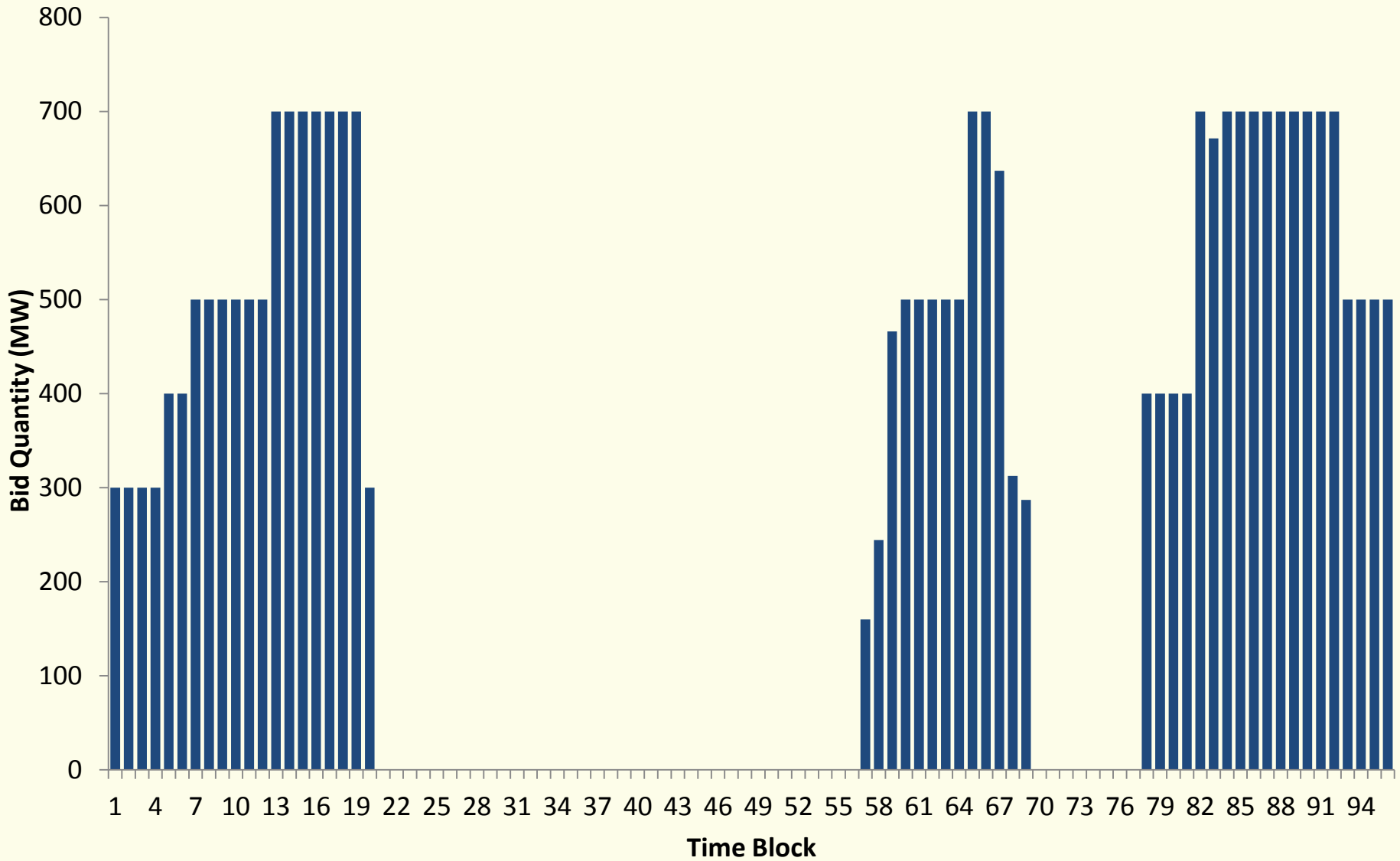
Gujarat Buy Volume for April-18



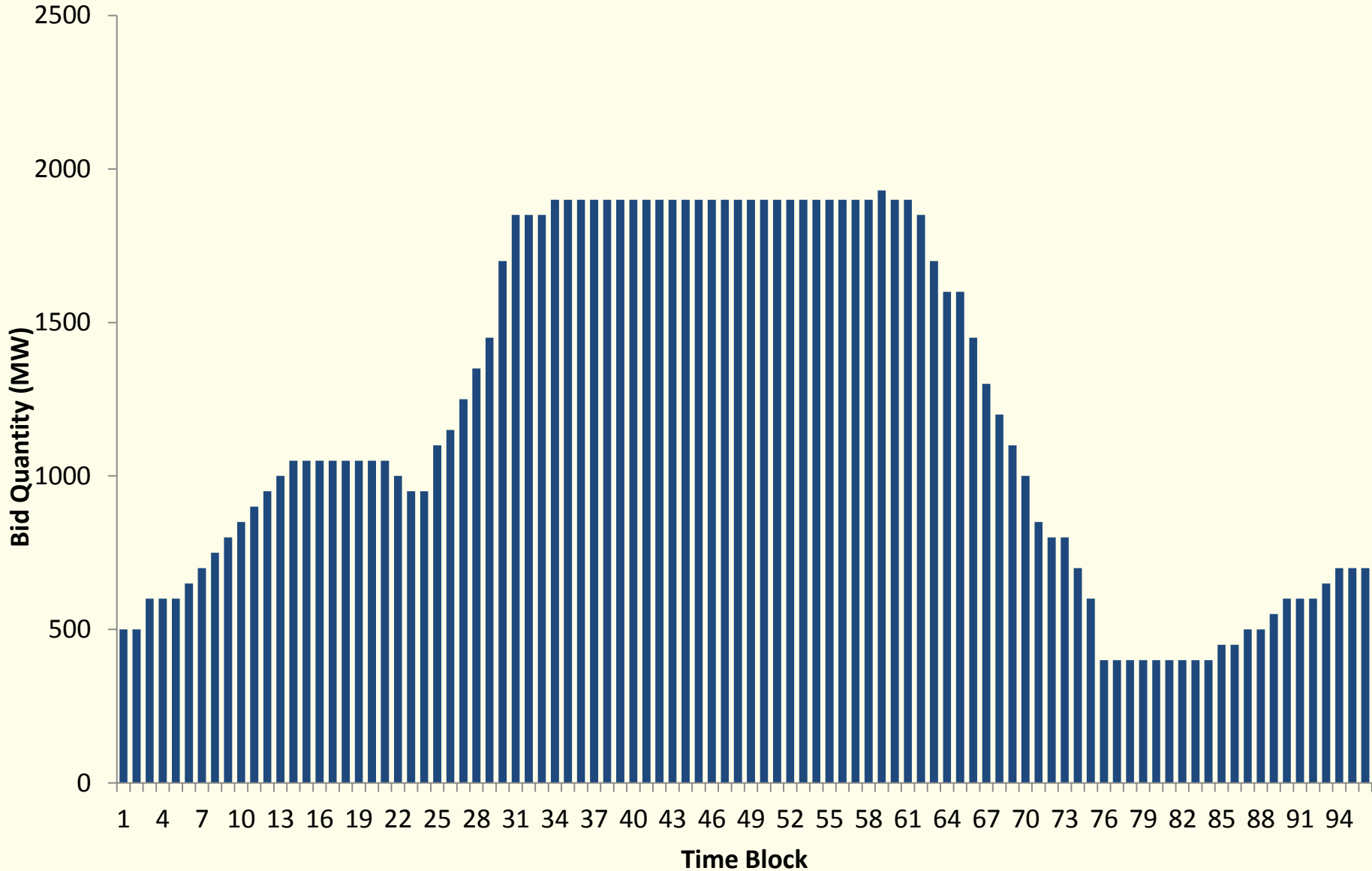
Gujarat Buy Volume on 1st May, 2018



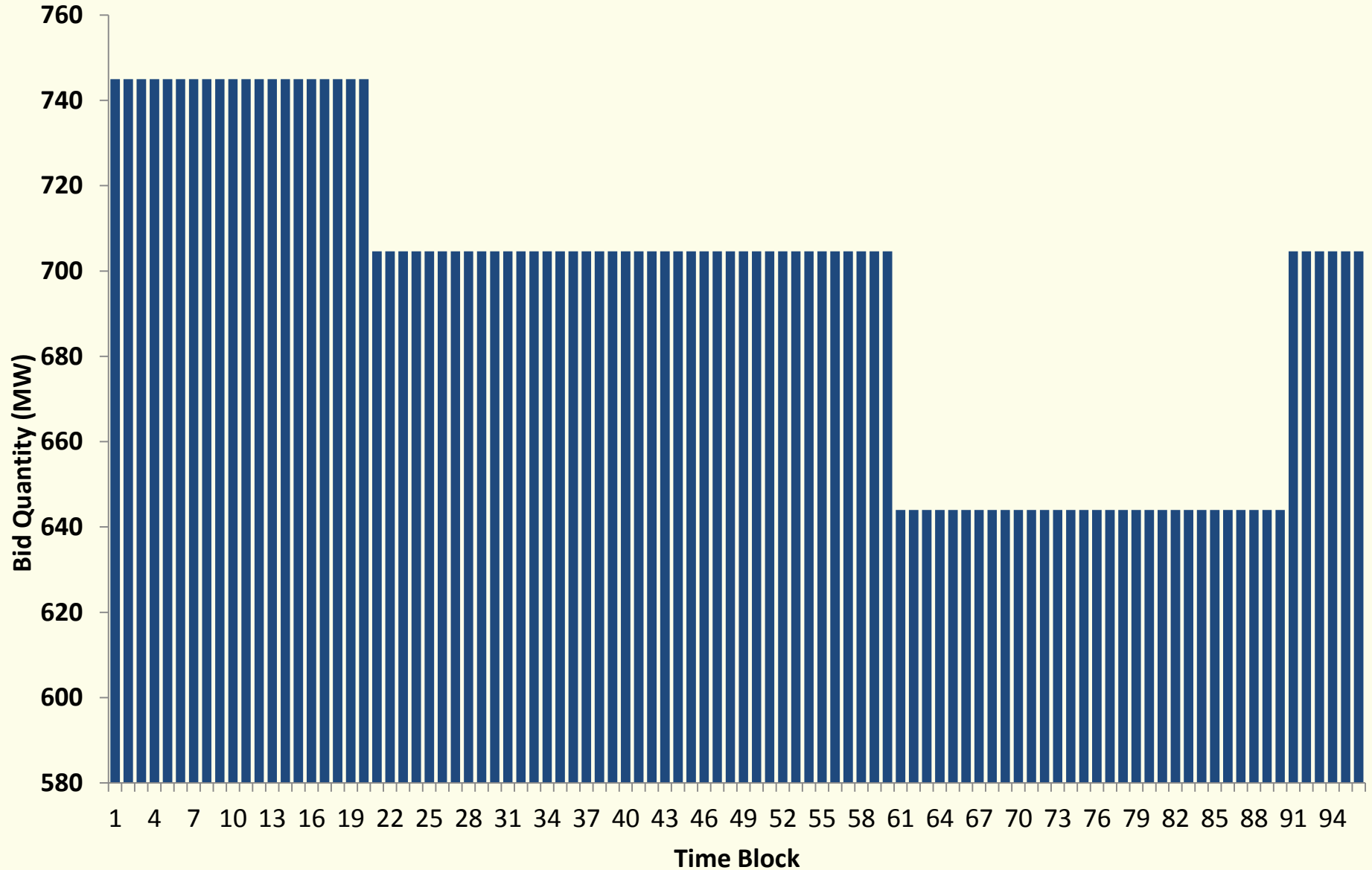
Uttar Pradesh Buy Volume 3rd June, 2018



Telangana Sell Volume on 5th May,18



Sembcorp IPP Sell Volume on 9th Oct,17



Cross Border Trade

- ◆ Guidelines of Ministry of Power and CERC draft regulations allow for grid connected neighboring countries like Bhutan, Nepal and Bangladesh to trade power through the Term Ahead Market of the Exchanges

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 11% in FY 12 to 0.5% in Q1 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

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

**Linking DSM
with Exchange
Price**

- CERC has proposed Draft 4th amendment to DSM Regulations on 29.06.2018.
- It proposes linking of DSM Price Vector to the Exchange's daily average Area Clearing Price

**Real Time
Electricity
Market**

- CERC has issued a Discussion Paper on Re-designing Real Time Electricity Markets in India on 25.07.2018
- CERC has issued 5th amendment to CERC (Open Access in inter-State Transmission) Regulations, 2018 on 08.08.2018 for establishment of National Open Access Registry (NOAR).

**Forward and
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, Gol & 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 is working on submission of petition for introduction of Sale of Renewable Energy in Term Ahead market.

GAS Exchange

- MoPNG Minister Mr Dharmendra Pradhan announced **intent of the govt. to have a gas trading platform this year.**
- **OIDB (Oil India Development Board) awarded KPMG the consultancy assignment to develop a framework for gas trading hub.**
- **On the direction of the Ministry, PNGRB (Petroleum and Natural Gas Board) has appointed CRISIL to assist in developing market rules and regulation for a gas trading hub/exchange in India.**
- 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.

India to Build Natural Gas Trading Platform: Pradhan

Move to encourage investment in the sector and boost pricing transparency



Oil Minister Dharmendra Pradhan

Our Bureau

New Delhi: India will soon build a natural gas trading platform, which will help lead to transparent pricing and encourage investment in the sector, Oil Minister Dharmendra Pradhan has said.

Most gas produced in India today is governed by a government-set price formula and certain sectors such as fertilizer and city gas get priority over others as gas consumers, mainly because local production is low and half of the gas requirement is met by imported liquefied natural gas (LNG).

Some of the top oil industry executives who met Prime Minister Narendra Modi on Monday also raised the long-standing demand of the industry to fast move towards market pricing for natural gas

produced in the country.

Termining the proposed platform as the "next biggest reform in the gas sector", Pradhan said it would will help bring transparency in the market discovery of price and certainty on investment return to companies. "Until unless we give certainty to the investor, he will not invest," Pradhan said. India needs huge investment in exploration and production, import terminals and pipelines and needs massive private and foreign capital for that.

Pradhan said a proposal for setting up a natural gas exchange will soon be taken to the Cabinet. The government-set formula for natural gas will not disappear immediately as there are some priority gas-consuming sectors but the country will "gradually" move towards transparent mechanism, Pradhan said.

This would help boost gas consumption in the country, where gas's contribution in the energy mix is barely 6-7%, compared to world average of 24%, Pradhan said, adding that there was huge potential of gas consumption in several sectors of the economy including power, transportation and manufacturing.

Price decontrol and building a gas hub is about moving towards a competitive gas market that will help draw investments, said Daniel Yergin, vice chairman, IHS Markit, an energy intelligence group.

The proposed exchange would help trade both domestic and imported LNG.

Open access to LNG terminals as well as to gas pipelines would be essential to build a functional natural gas hub, GAIL chairman B C Tripathi said. GAIL is the biggest gas marketer and transporter of the country.

➤ 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. In last fiscal year, the growth in TAM was 85% Y-o-Y

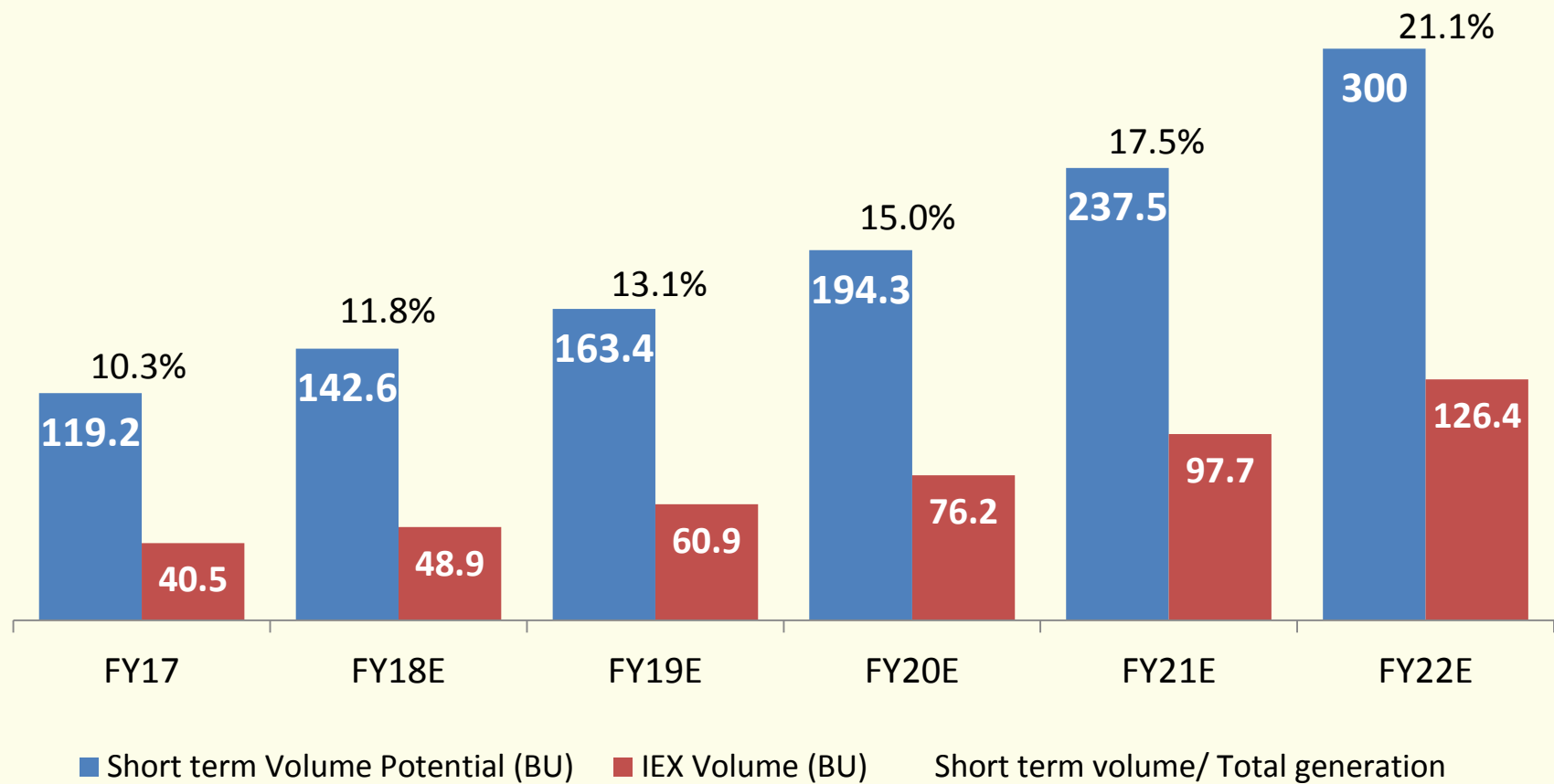
At present gate closure is 3 hours. Internationally, gate closure is half hour. We are working with CERC to reduce gate closure time. Liquidity will increase with reduced gate closure

➤ Coal Availability

- High international coal prices and low domestic coal availability has resulted reduced sell bids and increase in Average cost.
- Buy bid increased by 25% and sell bid increased by 1% due to Coal shortage in Q1

Coal production increased by 13% in Q1 FY19. Trend expected to continue.

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



Source: CRISIL

FINANCIALS

Value in INR Crores

Particular	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18
Revenue	71	138	174	177	200	233	256
Operating Expenditure	19	33	38.5	41	50	55	46
Operating Profit (EBITDA)	52	105	135.5	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

- **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 61% (incl. DDT) of total profit**

(Rs. In Lacs)

Particulars	FY17	FY18	YoY
Total Revenue	23,288	25,607	10%
Operating Expenses	5,519	4,558	(17)%
EBITDA	17,769	21,049	18%
EBITDA Margin (%)	76%	82%	590 bps
PBT	17,385	19,999	15%
Tax	6,027	6,831	13%
PAT	11,358	13,168	16%
Cash Profit	11,700	14,195	21%
EPS			
<i>- Basic (Rs.)</i>	39.06	44.61	14%
<i>- Diluted (Rs.)</i>	37.67	44.05	17%

Rs. in lacs

Particulars	Financial Year		
	FY17	FY18	% Chng.
<u>Revenue</u>			
Transaction Fees	17,222	20,559	19
Admission Fees & Annual Fees	2,643	2,486	(6)
Other Income	3,423	2,562	(25)
Total revenue	23,288	25,607	10
<u>Expenses</u>			
Employee benefits	1,548	2,408	56
Technology expenses	2,342	511	(78)
Other expenses	1,422	1,334	(6)
CSR Expenses	207	305	47
Finance costs	42	23	(45)
Depreciation & amortization	342	1,027	200
Total expenses	5,903	5,608	(5)
Profit before tax (PBT)	17,385	19,999	15
Total Income Tax Expense	6,027	6,831	13
Profit After Tax (PAT)	11,358	13,168	16

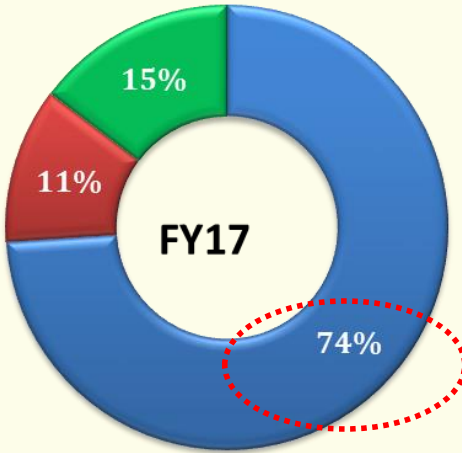
(Rs. In Lacs)

Particulars	Q1FY18	Q1FY19	Y-o-Y
Total Revenue	6,191	7,419	20%
Operating Expenses	1,244	1,249	1%
EBITDA	4,947	6,170	25%
EBITDA Margin (%)	80%	83%	326bps
PBT	4,794	5,906	23%
Tax	1,656	1,717	4%
PAT	3,138	4,189	33%
Cash Profit	3,285	4,447	35%
EPS			
- Basic (Rs.)	10.93	13.89	27%
- Diluted (Rs.)	10.41	13.87	33%

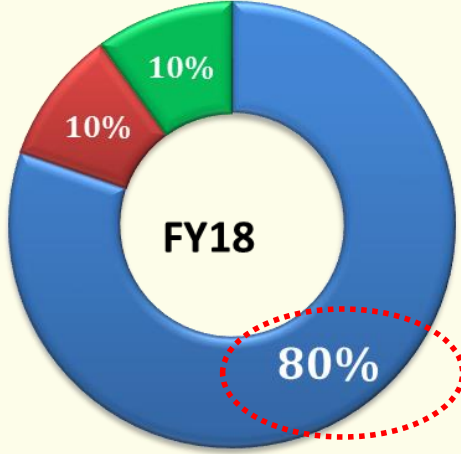
Rs. in lacs

Particulars	Quarter Ended		
	Q1FY18	Q1FY19	% Change
Revenue			
Transaction Fees	4,834	6,145	27
Admission Fees & Annual Fees	636	552	(13)
Other Income	721	722	-
Total revenue	6,191	7,419	20
Expenses			
Employee benefits	463	611	32
Other expenses	779	623	(20)
CSR Expenses	2	15	650
Finance costs	6	6	-
Depreciation & amortization	147	258	76
Total expenses	1,397	1,513	8
Profit before tax (PBT)	4,794	5,906	23
Total Income Tax Expense	1,656	1,717	4
Profit After Tax (PAT)	3,138	4,189	33

Financial Year



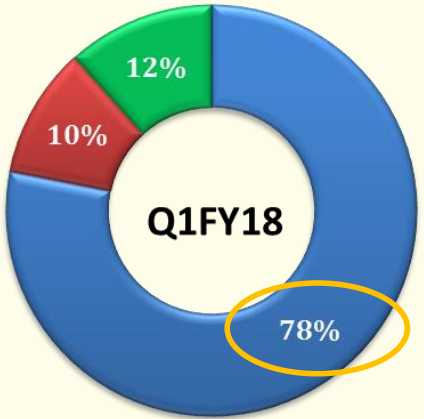
■ Transaction Fees ■ Admission & Annual Fees ■ Other Income



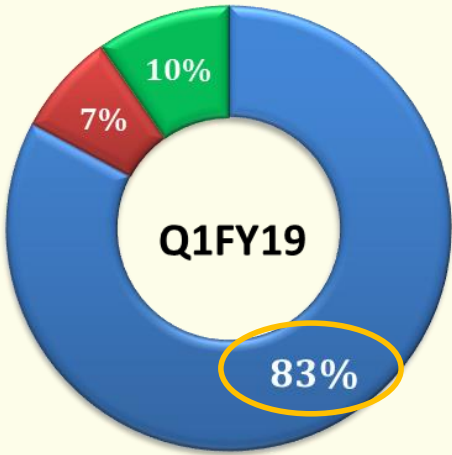
■ Transaction Fees ■ Admission & Annual Fees ■ Other Income

Improved Transaction income

Quarterly



■ Transaction Fees ■ Admission & Annual Fees ■ Other Income



■ Transaction Fees ■ Admission & Annual Fees ■ Other Income

S. No.	Name of Shareholder	% of Total Equity Share Capital
1	TVS SHRIRAM GROWTH FUND	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	RIMCO (MAURITIUS) LIMITED	4.50%
6	RURAL ELECTRIFICATION CORPORATION LTD	4.12%
7	ADANI TRADEX LLP	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%
	Others	43.82%
	TOTAL	100.0%

AWARDS & ACCOLADES

- ✓ **“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**
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