

# CESC Limited

Powering India since 1899

November 2019

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- RP-Sanjiv Goenka Group is a well known diversified business house in India
- RP-Sanjiv Goenka Group has interests across diverse business sectors - Power & Natural Resources, Carbon Black, IT & Education , Retail, FMCG, Media & Entertainment and Infrastructure
- Power Generation and Distribution contribute a majority of the revenues of RP-SG Group

**Employees 45,000 +**

**Shareholders 5,00,000 +**

**Gross Assets ~Rs. 43,500 cr**

**Revenue ~Rs. 25,500 cr**

**EBITDA ~ Rs. 5,000 cr +**

**PAT ~Rs. 2,000 cr**

- Dr. Sanjiv Goenka is the principal shareholder of the RP-Sanjiv Goenka Group together with other Group companies



**CESC Ltd**

Fully Integrated Private Power Utility



**Phillips Carbon Black Ltd**

India's largest Carbon Black Manufacturer



**Spencer`s Retail Ltd**

3<sup>rd</sup> Largest Hypermarket Chain



**Firstsource Solutions Ltd**

Top 3 Pure Play BPO Player



**Saregama India Ltd**

Largest Collection of Indian Music



**Harrisons Malayalam Ltd**

Tea and Rubber Plantations

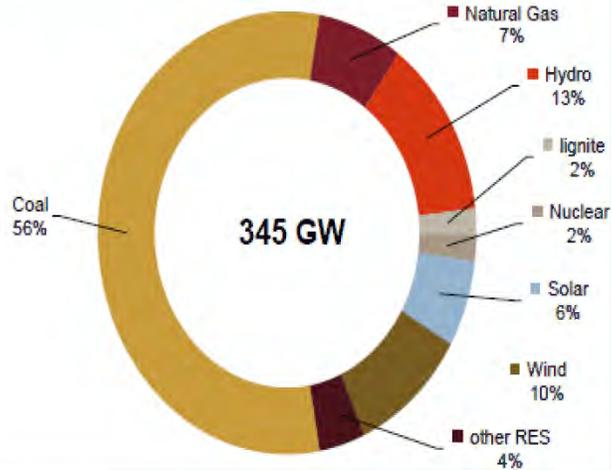


**Guiltfree Industries Ltd**

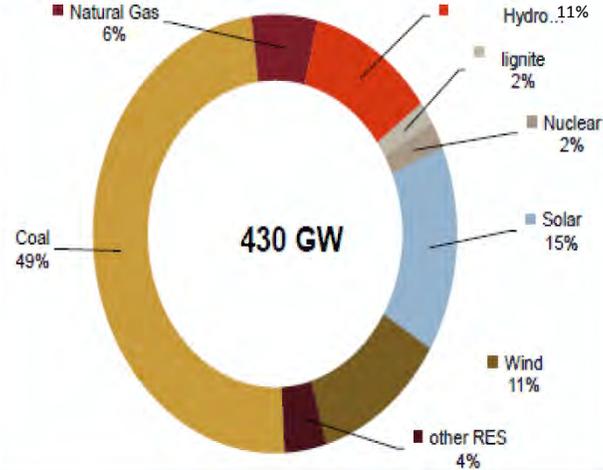
Fastest Growing FMCG Company

## All India Installed Capacity

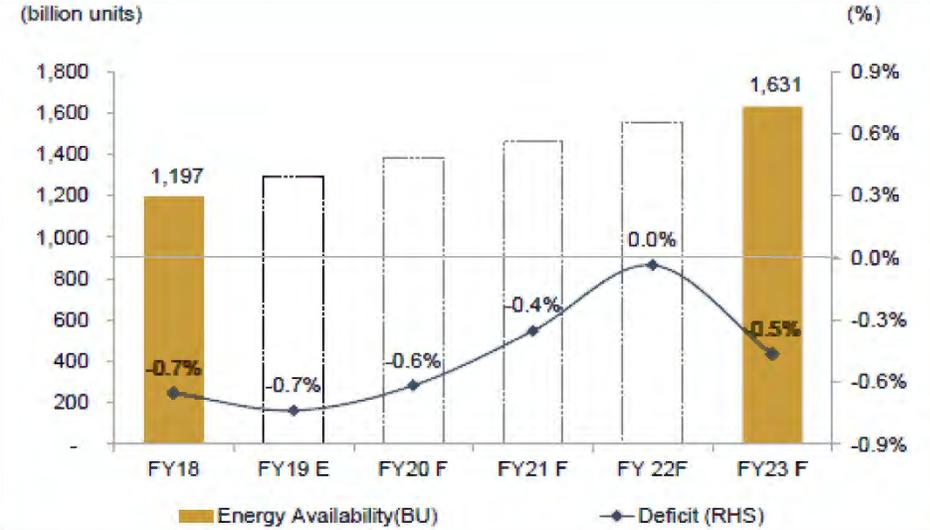
All-India installed capacity at the end of FY18



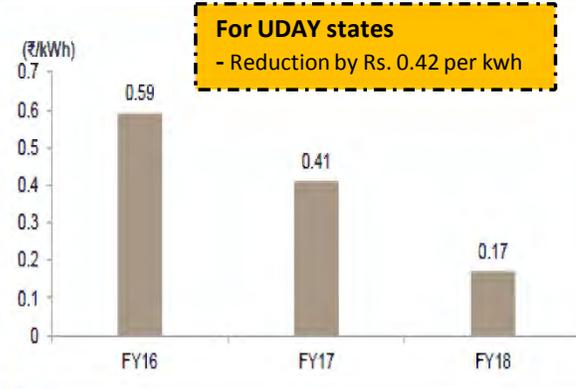
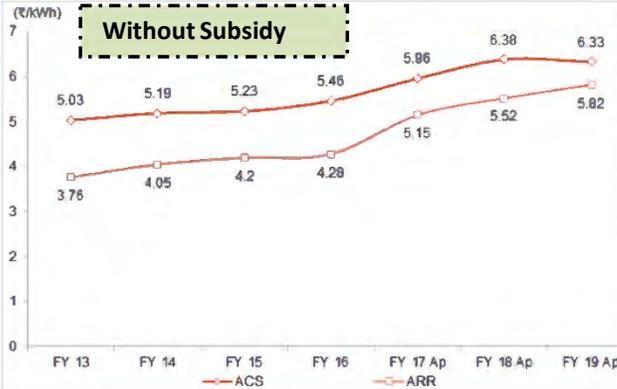
All-India installed capacity by FY 23



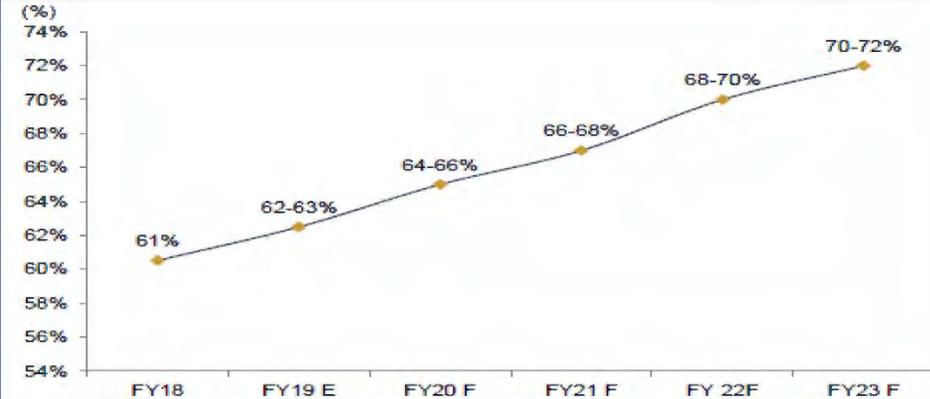
## Power availability & deficit



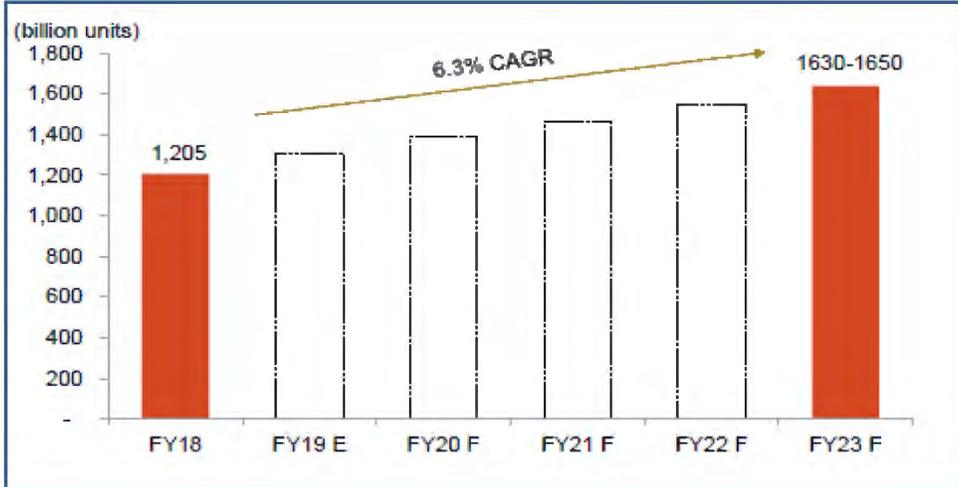
## ACS-ARR GAP



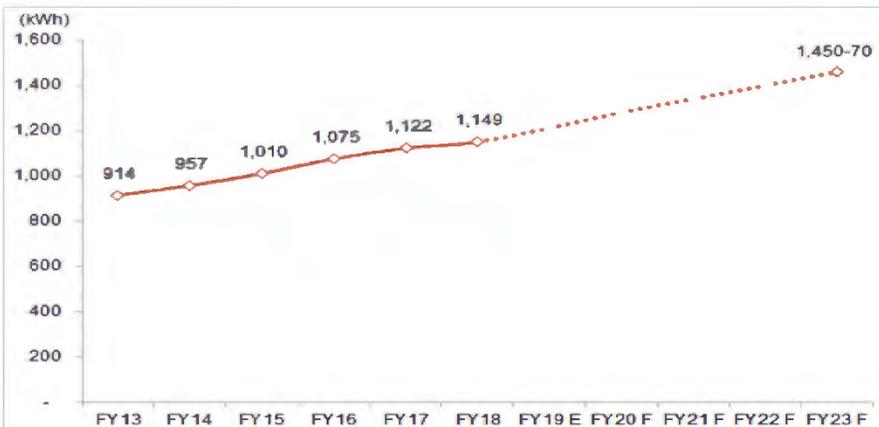
## Coal Based PLF's – to rise steadily



## Outlook on Power Demand (6.3% CAGR growth)



## Outlook on Per Capita electricity consumption



Source: CEA, CRISIL Research

## Factors influencing future power demand

- ✓ **GDP Growth**
- ✓ **Capacity expansion**
- ✓ **Power for all , 24\*7 availability**
- ✓ **Intensive rural electrification**
- ✓ **Govt. drive for ( make in India) and large scale infra (smart cities, DFCs, Metro Rail projects)**
- ✓ **Rising penetration of electric vehicles**

# CESC - POWER BUSINESS GENERATION & DISTRIBUTION

## Kolkata Distribution Business

Coal Mining, Power Generation & Distribution

- **1125 MW** thermal power plant
- **567 sq km** area
- **3.3 mn** consumers
- 21,866+ ckt km of network

## Independent Power Plants

600 MW thermal power plant in **Chandrapur, Maharashtra**  
(Project cost Rs. 38 billion)

600 MW thermal power plant in **Haldia, West Bengal**  
(Project cost Rs. 46 billion)  
*- entire output to CESC*

## Noida Distribution

- **335** sq km area
- Consumer Base-**82231**
- 25 yrs of operation
- Regulated business

## Renewables

- 24 MW** Wind power plant, Rajasthan
- 26 MW** Wind power plant, Gujarat
- 18 MW** Solar Power Plant in Tamil Nadu –
- 36 MW** Wind power plant in Mandsaur, Madhya Pradesh
- 70 MW** Wind Power plant in Gujarat

## Distribution Franchisee

Distribution Franchisee  
in 3 cities (Rajasthan)  
**Kota and Bharatpur & Bikaner –**  
*All operational*

**Malegaon** (Maharashtra) –  
operations expected to start soon

# Recent key achievements

Significant rise in **Consolidated PAT**

- All time high **EPS ~ Rs 90 (Consol)**

**PAT** FY 19 – Rs 1184 cr  
FY 18 – Rs 912 cr  
FY 17 – Rs 690 cr

First time **PBDT +ve** for **Chandrapur project** in **FY'19**

**Budge Budge & Haldia** amongst **TOP TEN** performing power plants in the country

Marked improvement in **T&D Loss**

- *Reduction of 20% over last 3 years*

FY 19 – 8.96%  
FY 18 – 9.65%  
FY 17 – 11.09%

Highest ever **export of power** in **FY'19 ~ 700 MU** ( 10% growth)

Highest ever **system demand** (Kolkata distribution) - **2337 MW** (JUNE 2019)

Highest ever **Dividend** in **FY'19** of **175%** ( **payout ~ 30%** )

**Now CESC – a pure power play utility with Pan-India presence in Generation & Distribution**

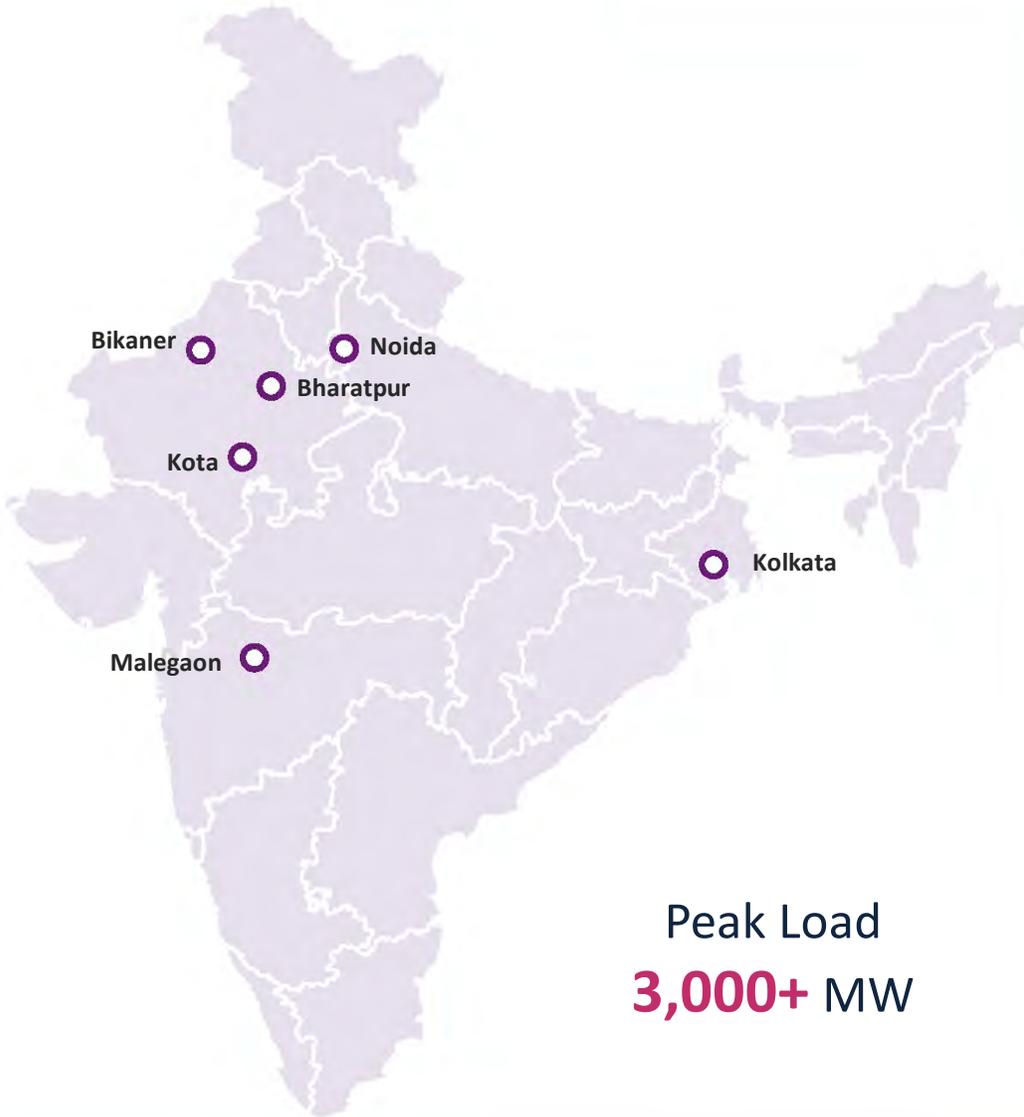
## Financial Performance of key subsidiaries

*Rs. crore*

	Revenue FY`18-19	EBIDTA FY`18-19	PAT FY`18-19	PAT FY`17-18
<b>CESC Ltd (Standalone)</b>	7919	2093	937	861
<b>CESC Ltd (Consolidated)</b>	<b>10868</b>	<b>3660</b>	<b>1184</b>	<b>912</b>
Haldia Energy Ltd	2293	969	324	313
Dhariwal Infrastructure Ltd	1181	366	(93)	(199)
Crescent Power Ltd & Renewables	310	208	54	52
Noida Power	1546	289	140	100
Kota/Bharatpur/Bikaner	1477	(23)	(60)	(120)

PAT HY` 1 (19-20)	PAT HY` 1 (18-19)
492	455
<b>596</b>	<b>535</b>
167	172
(49)	(87)
20	37
92	61
(56)	(58)

# Distribution Overview



City/ Location	Kolkata	Noida	Rajasthan – (KOTA, Bharatpur, Bikaner)	Malegaon
Distribution Contract	Licensee	Licensee	Input based franchisee	Input based franchisee
Area	567 sq. km	335 sq. km	381 sq. km	25 sq. km
Consumer Base	33 lakhs	82 Thousands	4 lakhs	1 lakhs
Peak Load	2300+ MW	~400MW	400+ MW	~150 MW



- ❑ India's oldest electricity utility, operating since 1899- **120+ years of experience**
- ❑ Engaged in Coal mining, Generation and Distribution of electricity to city of Kolkata & adjoining areas
- ❑ Almost entire energy requirement met from own / subsidiary's generation, meeting peak demand of 2300+ MW
- ❑ CESC Regulated Business –

## Generation 1125 MW

**Budge Budge** Generating Station(3x250MW)

**Southern** Generating Station(2x67.5MW)

**Titagarh** Generating Station(4x60MW)

## Distribution

567 sq.km. area,

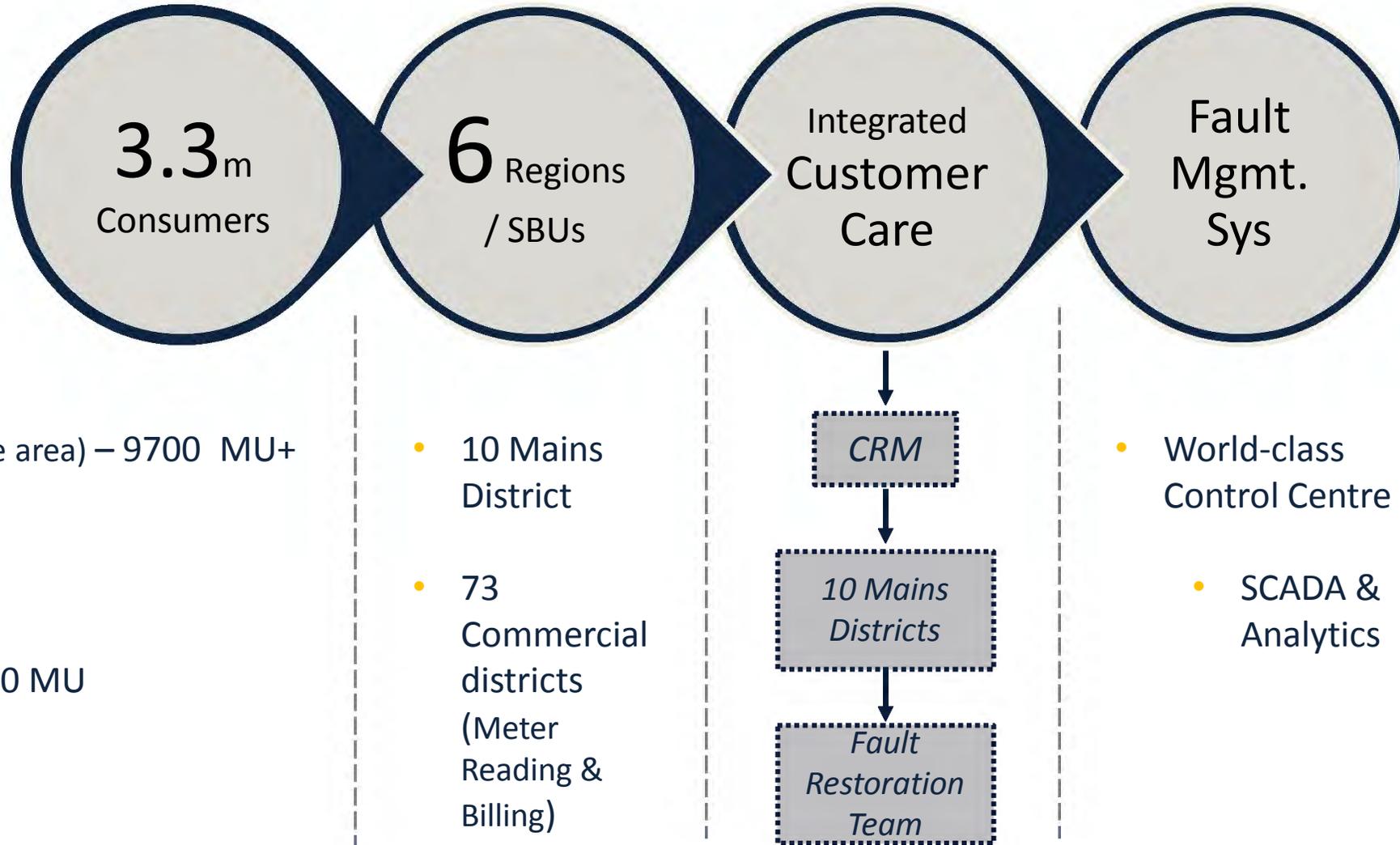
3.3 mn consumers

Peak demand **2337** MW

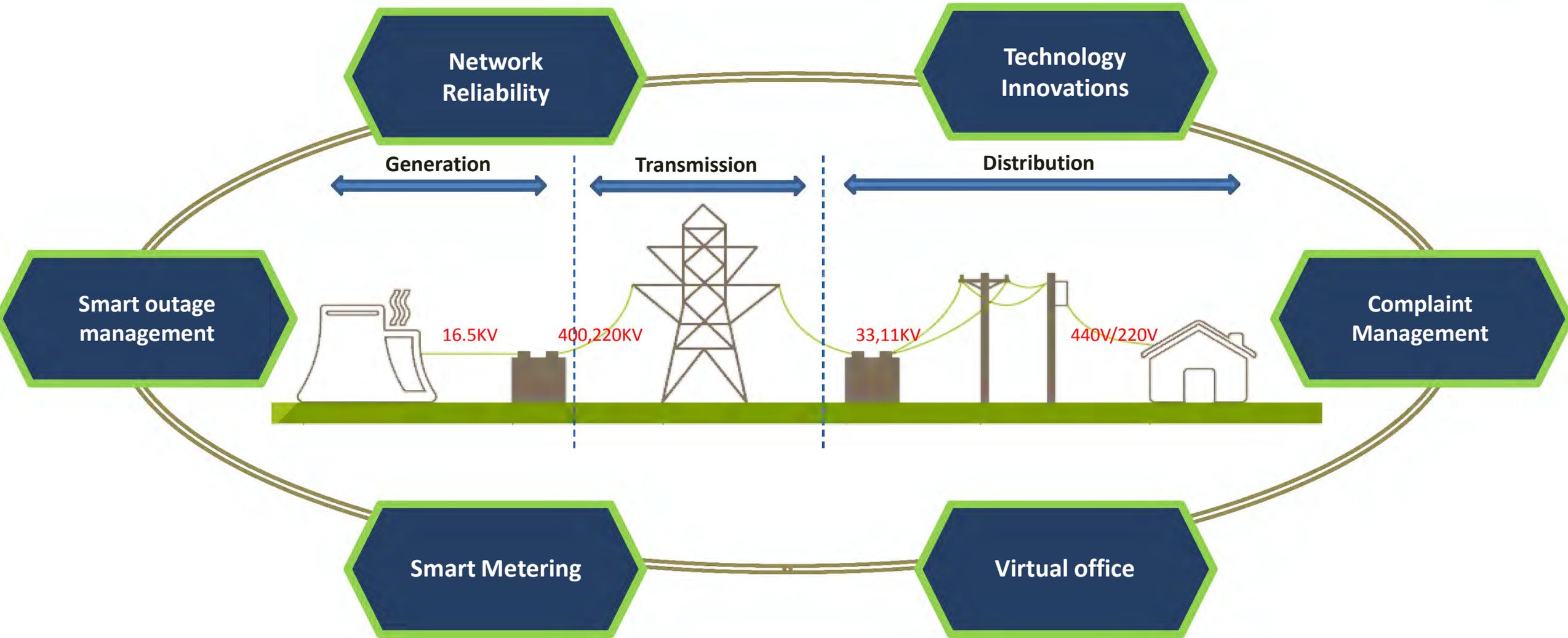
**Units sold >9,700** MUs

- ❑ Assured post-tax equity return , efficiency parameters better than regulatory norms
- ❑ Customer centric approach, best in class digital penetration, implementation of State-of-the-art technologies
- ❑ Continuous upgradation of distribution infrastructure to enhance quality, reliability and reduce downtime & overloads
- ❑ Board represented by independent directors and professionals
- ❑ Shares Listed on BSE , NSE and Kolkata. Access to International Equity & Debt market
- ❑ External credit rating Long Term "AA" (high safety) and Short Term "A1+" (highest safety)

# Kolkata distribution : B2C Business



# Delivering Customer service across the electricity value chain



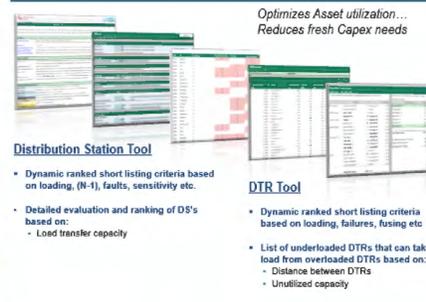
# Initiatives for Fault Prevention & Rapid Restoration

## SCADA & Analytics



To monitor overloads and identify repetitive faults

## Planning Tools



For identifying need-based capex, plan load transfers & redundancy

## GIS



For creating assets at right places & route maps

## AMR for DTs



To optimally load DTs

## Condition Based Monitoring & Mtc



For proactive maintenance

## Modified PBs



For eliminating spurious fusing

## LT Control Room



Optimize vehicle & crew management for fast restoration

## RMUs with FPIs & their Automation



To isolate HT faults and restore supply rapidly

# Leadership in Technology and Innovation



Integrated SS at New Cossipore with 220, 132 & 33 kV GIS



Compact 33 kV Distribution Station



Underground 132 kV SS at 'Quest Mall'

## OP@WER

Transforming the way Utilities relate to their customers

Unlocking Customer Engagement with Digital Platforms

## Silver Spring NETWORKS

AMI with approx. 25,000 Smart Meters ( and a few RMUs)



## INNOVARI

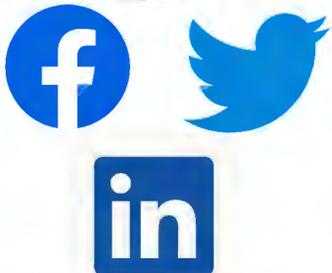
1.5 MW Demand Response project with both Demand Side management and DER integration

# CESC eSERVICE

## Improving Consumer Experience with superior customer service

New Connection Applications  
**100%**  
Online

**48.5%**  
of Bills paid online



Hey, I am eBuddy and would be happy to help you with the following Services:  
today 2:12 pm

- Monthly Bill Info/Payment
- Latest Payment Status
- View Duplicate Bill
- New Connection/Addl. Load/Shifting Of Service
- Name Change
- Complaints/Requests
- Report Supply Off
- E-Bill Registration
- Helpline Numbers
- Locator

☰ Got a question ?

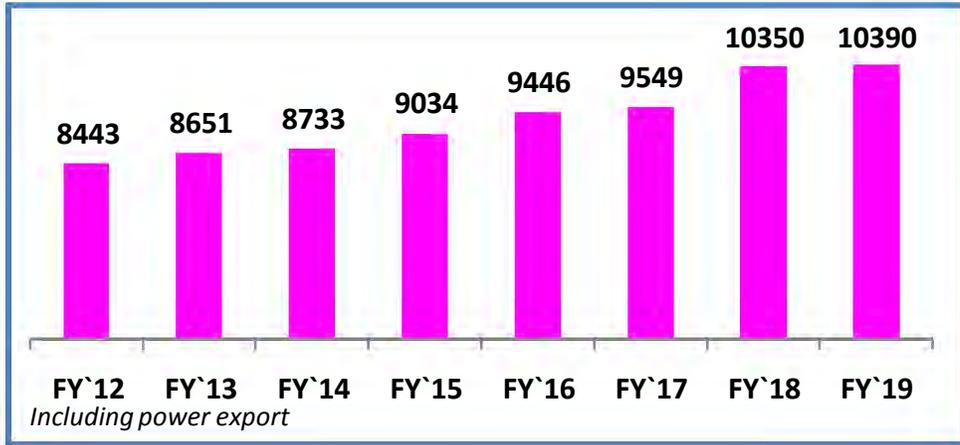




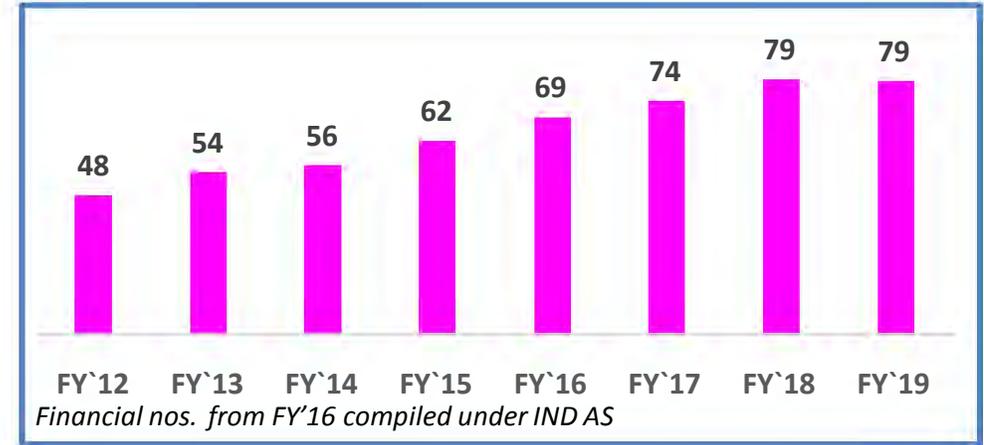
CESC won the 'Smart Grid Project of the Year' award at the Asian Power Awards for its programme with Silver Spring Networks

Corporate Headquarter- "CESC House" is the First Heritage Building in India to get a LEED Gold rating from the United States Green Building Council (USGBC) under Existing Building category

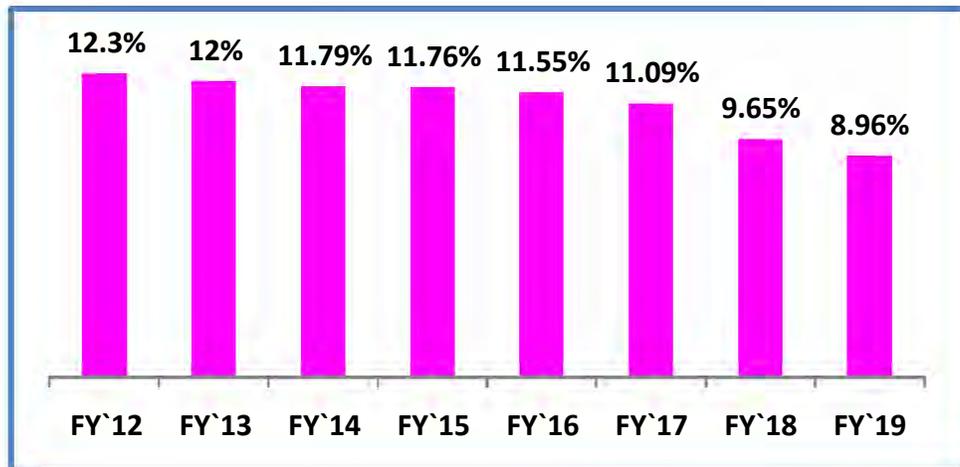
### Sales (MU)



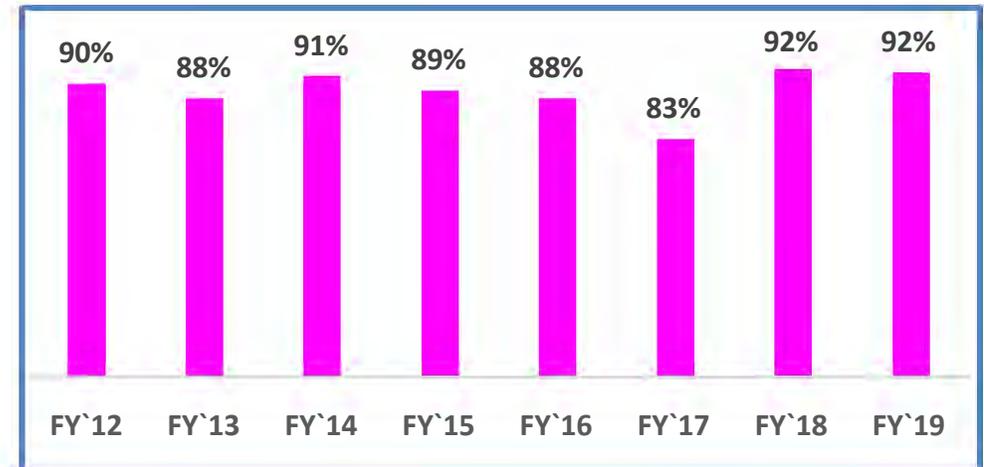
### Revenue (Rs. bn)



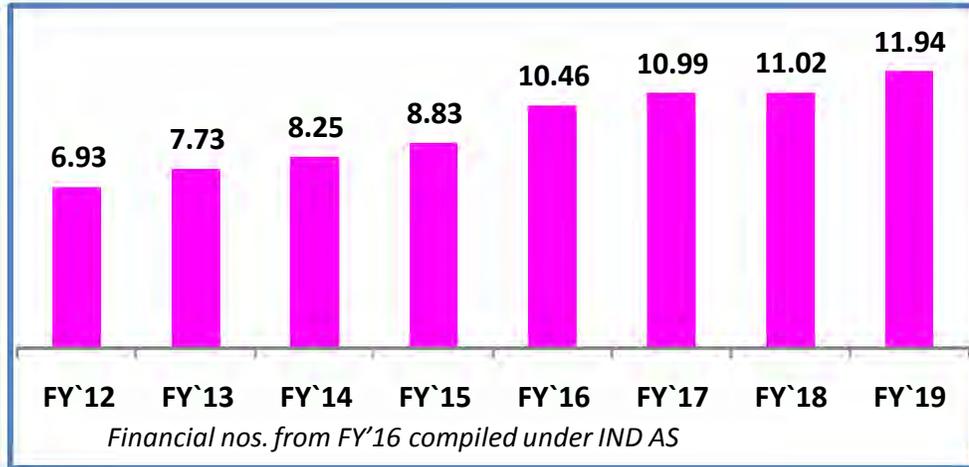
### T&D Loss (%)



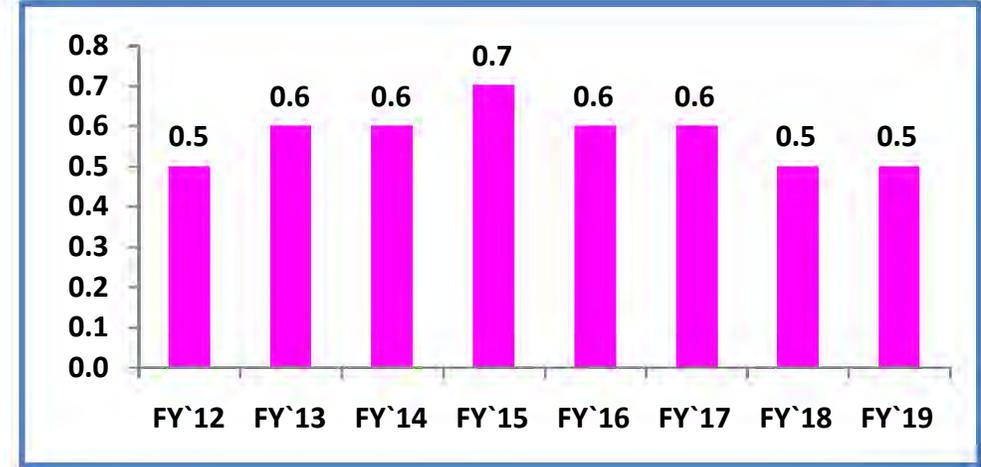
### PLF%(Budge Budge)



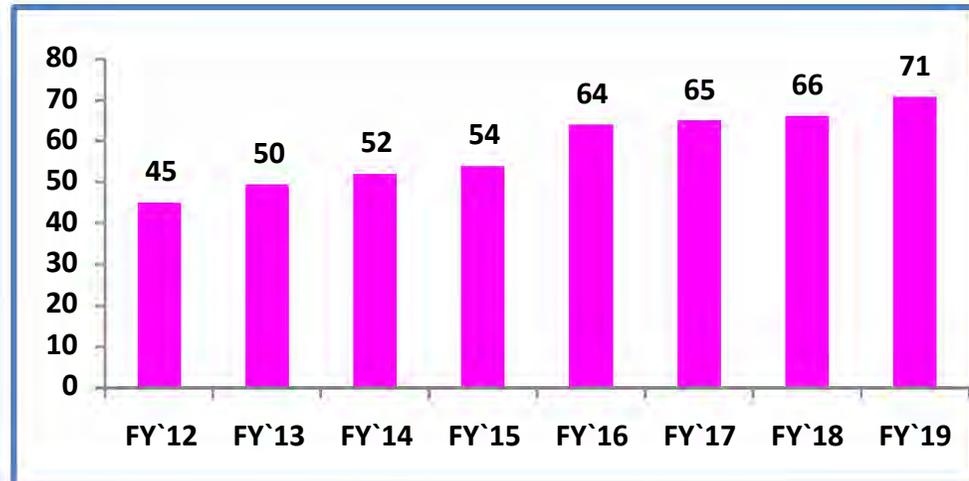
## PBT (Rs. Bn)



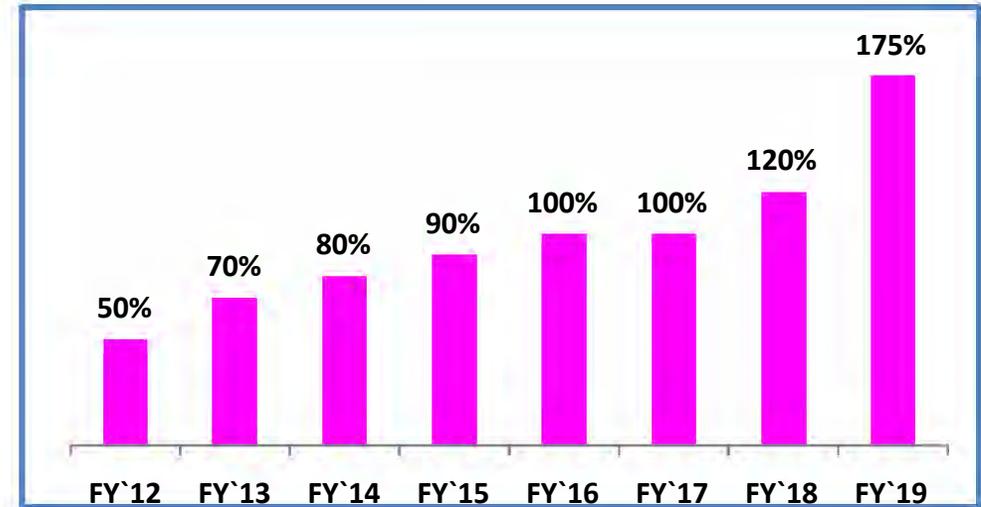
## Long Term Debt / Equity Ratio



## EPS (Rs.)



## Dividend History





<p><b>Started operations</b> December 1993</p>	<p><b>Distribution Area</b> Greater Noida in Uttar Pradesh</p>	<p><b>JV with</b> Greater Noida Industrial Development Authority</p>	<p><b>Power Procurement</b> Dhariwal Infrastructure/ Short Term/ Renewables</p>
<p><b>Area</b> 335 sq.km. (equivalent to Mumbai)</p>	<p><b>Population</b> 7 lakh</p>	<p><b>No. of consumers</b> 1 Lakh appx</p>	<p><b>Peak Demand</b> 400+ MW</p>
<p><b>Units sold</b> 1850 MU (2019)</p>	<p><b>T&amp;D Loss</b> 8.16% (2018)</p>	<p><b>Credit rating</b> Long Term "AA-" Short Term "A1+"</p>	<p><b>Assured post-tax equity return</b> 16% approved by UPERC</p>

Received Star Performance Improvement Award at ICC 5th "Innovation with Impact Award" for Discoms, 2017



# Distribution Franchisee-Kota, Bharatpur and Bikaner

Particulars	Kota	Bharatpur	Bikaner
Area (Sq. Km.)	176	50	155
Population (Nos. Lakh)	11.76	2.52	6.44
Consumer Count (Nos. Lakh)	2.28	0.63	1.79
Energy Input (Million Units)	1315	265	780
Units Sold (Million Units)	1016	220	639
Sales Mix (%)	Dom. = 48% Comm. = 21% Indus. = 25% Oths. = 6%	Dom. = 42% Comm. = 14% Indus. = 37% Oths. = 8%	Dom. = 44% Comm. = 16% Indus. = 26% Oths. = 14%
T&D Loss (%)	23	17	18
Revenue (INR Crores)	810	175	492
Avg. Billing Rate (INR/Unit)	7.58	7.71	7.44
Peak Load (MW)	230	50	130
DF Handover Date	01-Sep-2016	01-Dec-2016	16-May-2017



- DFA signed for a period of 20 years
- Power Procurement: JVVNL(Kota and Bharatpur), JdVVNL (Bikaner)
- Quickest ever takeover on compliance; operations stabilized in a year
- Current focus on commercial turn around & loss reduction
- Introduction of Power analytics and rolling out of smart meters
- Others in Sales Mix include Agriculture, PSL, and Mixed Load

CESC has formed three wholly owned subsidiaries in Rajasthan - **Kota Electricity Distribution Ltd, Bharatpur Electricity Services Ltd and Bikaner Electricity Supply Limited** for distributing power in these three cities

## Loss Reduction Initiatives

- Defective meters replaced
- Regular billing for consumers
- Accuracy testing on High-end consumer meters
- Working with local authorities to regularize unauthorized drawl of power
- Distribution-wise Transformer Energy Audit

## Network Reliability

- Centralized Command Station
- Diesel Gen Sets on stand-by for area with expected prolonged power failures
- Systematic maintenance of network assets
- Reduce supply outages
- Ensure electrical safety

## Soft value enhancement for customers

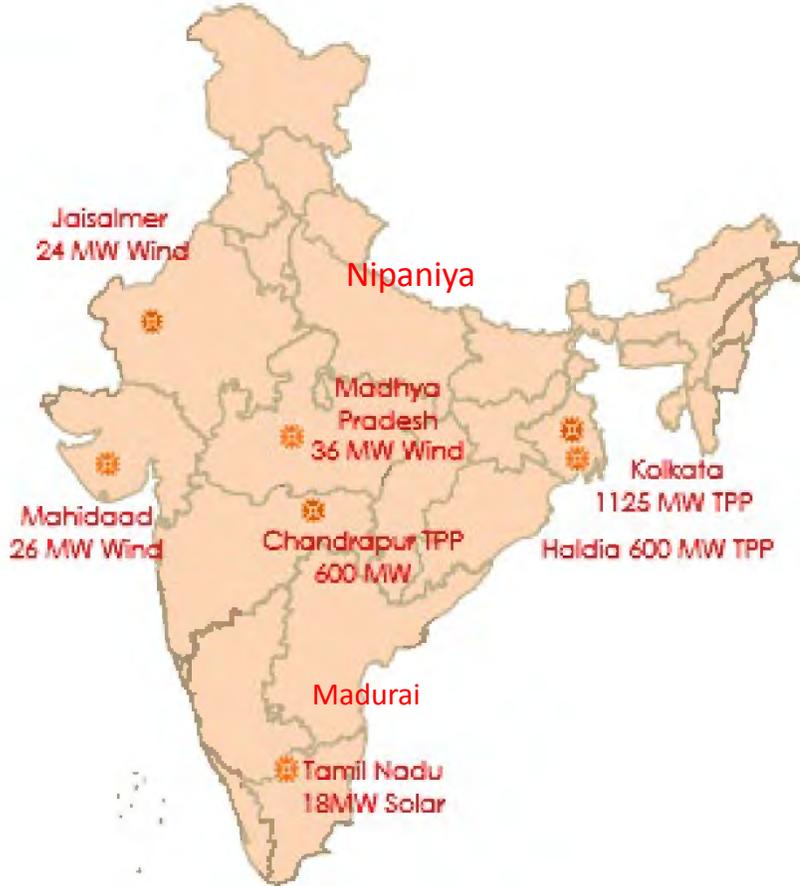
- New connection within a day
- Outage calls attended in <1 hour
- Smart metering
- Working hours extension
- Refurbishing of Distribution Transformers and Pillar Box
- Safety training for workmen
- Behavioral training for Customer Care executives



<p><b>Start of operations</b> (expected soon)</p>	<p><b>Distribution Area</b> Malegaon in Maharashtra</p>	<p><b>Concession Period</b> 20 Years</p>	<p><b>Power Procurement</b> MSEDCL</p>
<p><b>Area</b> 25 sq.km.</p>	<p><b>No. of consumers</b> 1 lakh</p>	<p><b>Energy Input</b> 900 MUs</p>	<p><b>Energy Billed</b> 497 MUs</p>
<p><b>Revenue Billed</b> 322 Cr</p>	<p><b>Current Distribution Loss</b> 44.76%</p>	<p><b>Collection Efficiency</b> 99%</p>	<p><b>Min. Capex p.a.</b> 1<sup>st</sup> -5<sup>th</sup> Yr: 20 Cr 6<sup>th</sup> – 20<sup>th</sup> Yr: 3 Cr</p>

# Generation Overview

Generation Capacity 2539 MW



Map not to scale

Plant	Capacity	PLF FY'19	Offtake Arrangement	Fuel Security
<b>BBGS</b>	750 MW	92	Integrated generation for Kolkata Distribution	<ul style="list-style-type: none"> <li>• CIL Linkage</li> <li>• Coal Mine</li> <li>• E-auction</li> </ul>
<b>SGS</b>	135 MW	28		<ul style="list-style-type: none"> <li>• CIL Linkage</li> </ul>
<b>TGS</b>	240 MW	-		<ul style="list-style-type: none"> <li>• CIL Linkage</li> </ul>
<b>Crescent Power</b>	40 MW	94	<ul style="list-style-type: none"> <li>• Short Term Supply -</li> </ul>	<ul style="list-style-type: none"> <li>• Coal Washery Rejects</li> </ul>
<b>Haldia</b>	600 MW	92	<ul style="list-style-type: none"> <li>• 100% Long term PPA - Kolkata Area</li> </ul>	<ul style="list-style-type: none"> <li>• CIL Linkage</li> <li>• E-auction</li> </ul>
<b>Dhariwal</b>	600 MW	67	<ul style="list-style-type: none"> <li>• Long term PPA with TANGEDCO</li> <li>• Long term PPA with NPCL</li> <li>• Short/Medium term PPA</li> <li>• Merchant market from time to time</li> </ul>	<ul style="list-style-type: none"> <li>• CIL Linkage</li> <li>• Coal Mine</li> <li>• E-auction</li> </ul>
<b>Renewables</b>	174 MW	~20	<ul style="list-style-type: none"> <li>• 100% Long term PPA</li> </ul>	<ul style="list-style-type: none"> <li>• Wind &amp; Solar</li> </ul>



**Stations**  
 Budge Budge- BBGS  
 (3x250MW)  
 Southern- SGS  
 (2x67.5MW)  
 Titagarh- TGS  
 (4x60MW)

**Cumulative Capacity**  
 1125MW

**Assured Post Tax Equity Return**  
 15.5% on Normative Equity

BBGS ranks amongst top performing thermal stations in the country (CEA)

Power generated is used by CESC Kolkata

Fuel security with captive coal block & coal linkages

**100% utilization of ash** in an environmentally friendly manner

Exports of surplus capacity via exchange or bilateral contracts

Parameters better than Regulatory Norms

# 600 MW Haldia Thermal Power Project, West Bengal



- **Generating Station:** 2x300 MW Thermal Power Plant
- **Entire capacity to CESC (Kolkata)** -PPA approved by WBERC
- **Assured Post Tax Equity Return** 15.5% on Normative Equity
- **Fuel Supply Agreement** with Mahanadi Coalfields Limited
- Presently featuring amongst **top performing power plants** in the country (CEA)  
**PLF: 87.8% (FY19), Sale to licensed area: 4240 MUUs (FY19)**
- 100% ash utilization & comprehensive waste management system
- Smart analytical monitoring software for asset protection, house web based applications for performance management and maintenance efficacy
- ‘Zero’ man days lost due to IR issue
- **External credit rating** Long Term “AA-” (high safety) and Short Term “A1+” (highest safety)
- Plant awarded “Global Environment Award 2016” in Platinum Category

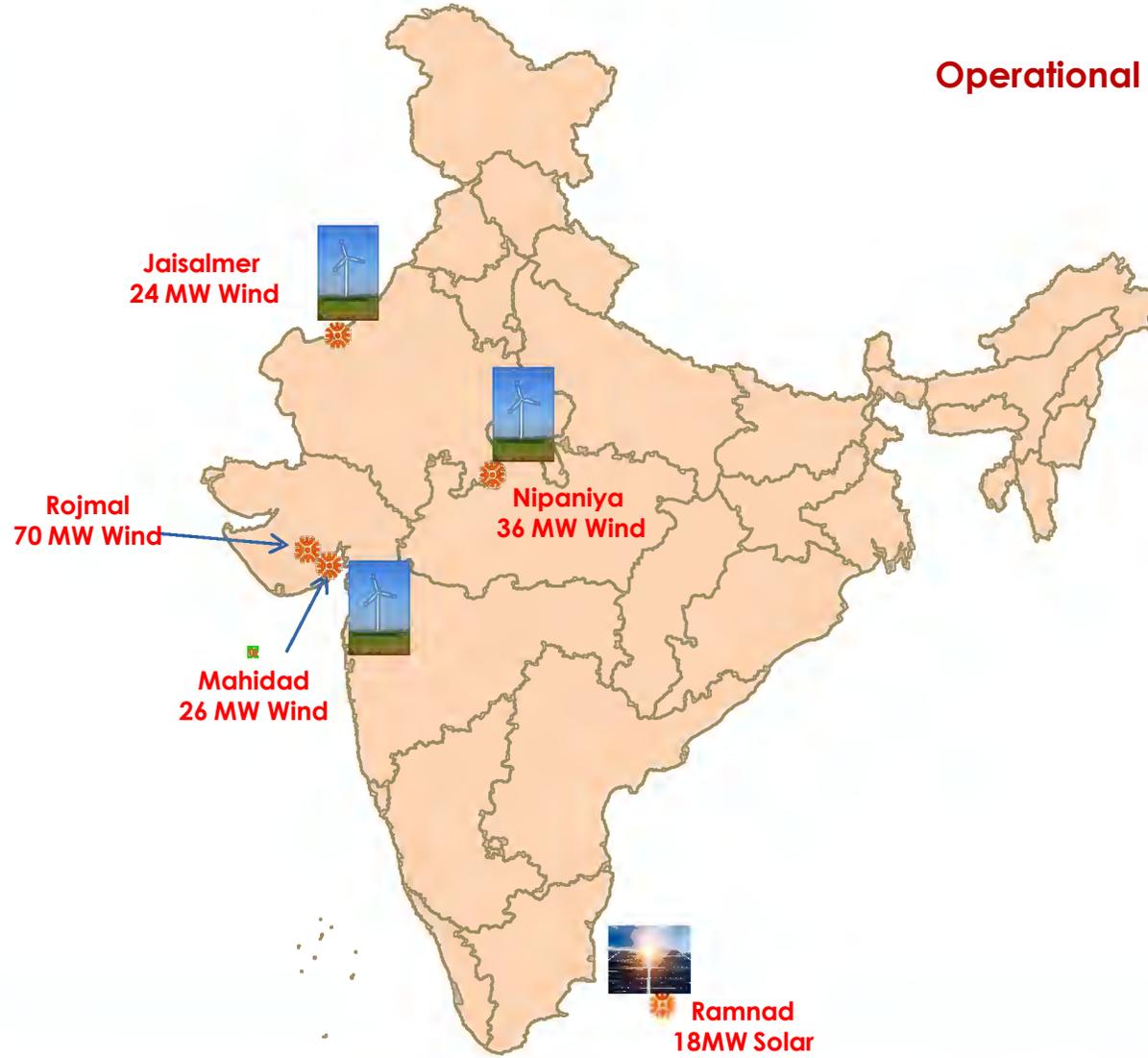


- **First Independent Power Plant** of CESC
- **Generating Station:** 2x300 MW in Chandrapur, near Nagpur
- **Project cost** of Rs. 38 billion funded at 75:25 debt-equity ratio
- **Fuel Supply Agreement** with South Eastern Coal Fields Limited
- Received ISO certification on Quality, Environment & Health Management on 30th Mar'17
- **PPA:** 100 MW to TANGEDCO under long term PPA  
187 MW to NPCL(approved by UPERC)  
185 MW Short Term PPA  
Actively participating in bilateral bids for power sale and exchange



- **Generating Station:** 40 MW AFBC based power plant
- **Commissioning Year:** 2010
- Plant set up at CESC's **Sarisatolli coal mine pit** in West Bengal & primarily based on washery rejects
- **Power sold to the grid**
- Connected to State Transmission Utility Grid Substation through **14km long Transmission System**
- Recently, Commissioned a 18 MW Solar PV power Project in Tamil Nadu under the Solar Power Policy of the State
- **Key Metrics: FY'19**
  - **Generation :** 331 MU , **PLF :** 94%

Operational (174 MW)



# Renewables



**Wind Farm Site:  
Rojmal Gujarat.**



**Wind Farm Site :  
Nipaniya, Madhya Pradesh**

- One of the best portfolios in terms of tariff and returns
- Amongst the first companies to set up a Solar Power Project at Gujarat (2010) and Tamil Nadu (2015) under the State Feed-in-tariff model

Project	Plant Type	Capacity MW	PPA with	Type of Power Sale	COD
Dangri, Rajasthan	Wind	24	JVVNL	Long term PPA	Mar 13
Surendranagar, Mahidad, Gujarat	Wind	26	GUVNL	Long term PPA	Dec 14
Nipaniya, M.P.	Wind	36	MPPMCL	Long term PPA	Mar 16
Rojmal, Gujarat	Wind	70	GUVNL	Long term PPA	Mar 17
Neeravi, T.N.- Solar-Crescent Power	Solar	18	TNG&DCL	Long term PPA	Jan 16

**THANK YOU**