

# Power

## Distribution delicensing: A giant leap?

August 2021

Tarun Bhatnagar | Someel Shah  
[researchreport@bobcaps.in](mailto:researchreport@bobcaps.in)

**POWER**

24 August 2021

**Distribution delicensing: A giant leap?**

- Proposed delicensing of distribution positive but key aspects such as wheeling charges and tariff caps will determine the outcome
- Potential Rs 0.5tn-3.7tn market by FY27, driving stock upside of 4-58% if implemented in BJP states and 10-115% if implemented across India
- Retain BUY on TPWR (#1 private distributor); TPW and CESC remain at HOLD but could see larger upside off low base if Electricity Bill is passed

Tarun Bhatnagar | Someel Shah  
researchreport@bobcaps.in

**Distribution delicensing may be a gamechanger:** The Electricity Amendment Bill 2021 proposes to delicense distribution, strengthen renewable portfolio obligations and make state electricity regulatory commissions more independent. Delicensing will allow new players to sell power across India, breaking the monopoly of incumbent distribution companies (mostly state-owned).

**Devil in the details:** The potential power distribution market size will depend on numerous factors that are yet to be ironed out, such as wheeling charges payable by new entrants for using the incumbent’s infrastructure, tariff ceilings, and rules on power procurement and management of the common network. The impact will vary widely across states due to variation in costs and tariffs. Also, several states – particularly those not under BJP rule that form ~60% of demand – have opposed the bill.

**Addressable market of up to Rs 3.7tn:** We conducted a financial viability analysis based on a detailed study of regulatory tariff orders for the top 15 power-consuming states. Our study reveals that customer segments making up 4-29% of the market (59bn-470bn units) pay tariffs that can cover the estimated operational & capital costs of a distribution business – this implies a Rs 0.5tn-3.7tn opportunity by FY27 by which time we expect regulations and competitive dynamics to have evolved. The commercial and industrial segments that pay the highest tariffs will be targeted aggressively by new entrants; most residential and agricultural customers that pay lower tariffs may not be targeted.

**New entrants to flock in but top players will retain high share:** Competition is likely to be intense as limited initial capex will be required and the market is vast. Europe and the Philippines, which are open to retail competition, have a multitude of players (10-100+), though the top 3 dominate with over 60% share in both markets.

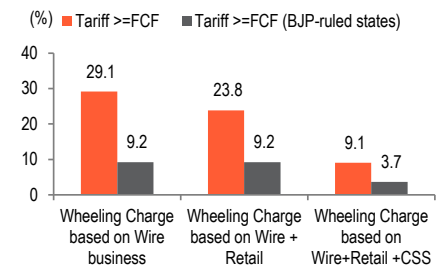
**Retain BUY on TPWR:** We estimate a 4-115% stock upside for distributors under our coverage on passage of the bill. This assumes (1) the top 5 private players will capture 50% share with Tata Power (TPWR) at ~14% and CESC/Torrent Power (TPW) at ~7% each, (2) operating & capital costs will be in line with current private distribution business, (3) current licensed players will continue to earn regulated returns from managing the network even as they lose customers. We retain BUY on TPWR; HOLD on CESC/TPW.

**Recommendation snapshot**

Ticker	Price	Target	Rating
CESC IN	732	751	HOLD
TPW IN	454	461	HOLD
TPWR IN	125	161	BUY

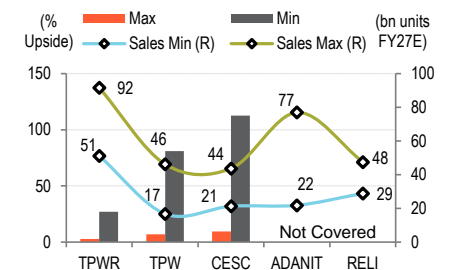
Price & Target in Rupees | Price as of 23 Aug 2021

**Potential market under scenarios**



Source: BOBCAPS Research

**Top 5 power suppliers: Valuation and unit sales impact\***



Source: BOBCAPS Research | \*Sales impact is net of gain from new customers and loss of customers in current licensed distribution circles



## Contents

<b>Significant upside from delicensing .....</b>	<b>3</b>
Potential market of up to Rs 3.7tn .....	4
Top states to see most of the action.....	6
<b>Intense competition likely but top 3 could corner +50% share.....</b>	<b>11</b>
Lessons from Europe .....	11
Lessons from the Philippines.....	12
<b>Positive for customers and generators .....</b>	<b>12</b>
<b>Valuation and Risks.....</b>	<b>13</b>
Tata Power .....	13
Torrent Power.....	15
CESC .....	16
<b>Appendix 1: Key assumptions.....</b>	<b>18</b>
The big questions .....	18
Estimation of revenues .....	18
Estimation of costs .....	18
Identifying potential market.....	19
Estimation of market share.....	19
Potential risks to our assumptions.....	20
<b>Appendix 2: Electricity distribution.....</b>	<b>21</b>
<b>Appendix 3: Electricity Amendment Bill 2021 (Draft) .....</b>	<b>23</b>
Distribution delicensing .....	23
Tariffs .....	23
Central & State Regulatory Commissions .....	24
Promoting renewables.....	24
Payment security mechanism.....	24

## Significant upside from delicensing

Potential market of Rs 0.5tn-1.2tn if Bill passed in BJP states and up to Rs 3.7tn if enacted pan-India

We estimate that 4-9% of India's electricity distribution market worth Rs 0.5tn-1.2tn by FY27 could be targeted by new entrants, assuming distribution delicensing is implemented by mid-FY23 only in states run by the ruling BJP party (~40% of current consumption). In this scenario, the share of the top 5 private distribution players in India's power consumption can increase from 7.3% currently to 8.7-11.6% by FY27 – in turn spurring a potential 4-58% stock price upside for TPWR, TPW and CESC.

Should this reform be implemented nationally, the market share and stock upside for the top 5 can increase to 8-19% and 10-115% respectively. Our forecast of the addressable market only includes customer segments where current tariffs can cover the estimated operating, financial and capital costs of running a distribution business.

We expect the commercial and industrial segments and top-end residential customers that pay higher tariffs to be targeted aggressively by new entrants. Agriculture and a majority of the residential segment, where tariffs in most cases will not suffice to cover costs, are unlikely to be targeted.

**Fig 1 – Addressable market – if reforms are implemented in states run by the ruling BJP party**

(Volumes in bn units)	Current Volumes FY21	Scenario A Wheeling Charge = Wire Business Costs + Regulated Returns			Scenario B Wheeling Charge = Wire & Retail Business Costs + Regulated Returns			Scenario C Wheeling Charge = Wire & Business Costs + Regulated Returns + CSS		
		Volumes FY27E*	FY25E EPS Upside	Valuation Upside (%)	Volumes FY27E*	FY25E EPS Upside	Valuation Upside (%)	Volumes FY27E*	FY25E EPS Upside	Valuation Upside (%)
TPWR	33.2	64.6	28.4	12.1	64.6	22.0	11.0	51.2	9.0	3.8
TPW	17.2	23.4	19.7	19.8	23.4	27.0	26.6	16.7	11.0	9.5
CESC	13.2	28.0	49.4	57.7	28.0	39.9	38.5	21.3	16.3	13.2
ADANIT	10.2	35.2	-	-	35.2	-	-	21.8	-	-
RELI	19.2	35.6	-	-	35.6	-	-	28.9	-	-
<b>Top 5</b>	<b>92.9</b>	<b>186.7</b>	-	-	<b>186.7</b>	-	-	<b>140.0</b>	-	-
% of All India	7.3	11.6	-	-	11.6	-	-	8.7	-	-
<b>Addressable Market</b>		<b>148.1</b>	-	-	<b>148.1</b>	-	-	<b>59.1</b>	-	-
<b>All India</b>	<b>1,264.5</b>	<b>1,613.9</b>	-	-	<b>1,613.9</b>	-	-	<b>1,613.9</b>	-	-
Addressable Mkt (% of All India)		9.2	-	-	9.2	-	-	3.7	-	-

Source: BOBCAPS Research | \*Assuming 5% CAGR from FY22-FY27 and loss of 50% of current customers to competition | CSS – Cross Subsidy Surcharge

**Fig 2 – Addressable market – if reforms are implemented across the country**

(Volumes in bn units)	Current Volumes FY21	Scenario A Wheeling Charge = Wire Business Costs + Regulated Returns			Scenario B Wheeling Charge = Wire & Retail Business Costs + Regulated Returns			Scenario C Wheeling Charge = Wire & Business Costs + Regulated Returns + CSS		
		Volumes FY27E*	FY25E EPS Upside	Valuation Upside (%)	Volumes FY27E*	FY25E EPS Upside	Valuation Upside (%)	Volumes FY27E*	FY25E EPS Upside	Valuation Upside (%)
TPWR	33.2	91.7	63.4	27.1	78.9	57.0	28.4	43.2	22.3	9.5
TPW	17.2	46.2	77.5	81.2	39.8	70.0	69.2	22.0	27.3	23.5
CESC	13.2	43.7	118.2	114.7	37.3	103.7	99.9	19.4	40.5	32.7
ADANIT	10.2	77.0	-	-	64.2	-	-	28.5	-	-
RELI	19.2	47.5	-	-	41.1	-	-	23.2	-	-
<b>Top 5</b>	<b>92.9</b>	<b>306.1</b>	-	-	<b>261.2</b>	-	-	<b>136.3</b>	-	-
% of All India	7.3	19.0	-	-	16.2	-	-	8.4	-	-
<b>Addressable Market</b>		<b>470.0</b>	-	-	<b>384.6</b>	-	-	<b>146.6</b>	-	-
<b>All India</b>	<b>1,264.5</b>	<b>1,613.9</b>	-	-	<b>1,613.9</b>	-	-	<b>1,613.9</b>	-	-
Addressable Mkt (% of All India)		29.1	-	-	23.8	-	-	9.1	-	-

Source: BOBCAPS Research | \*Assuming 5% CAGR from FY22-FY27 and loss of 50% of current customers to competition | CSS – Cross Subsidy Surcharge

Our estimates are based on three broad scenarios in the tables above which uses three different approaches to calculate wheeling charges payable by new entrants to the incumbent discom for using its network:

- **Scenario A (Wire Business):** Wheeling charges based on recovery of costs and regulated returns of the wire business
- **Scenario B (Wire + Retail Business):** Wheeling charges based on recovery of costs and regulated returns of wire and retail business
- **Scenario C (Wire + Retail + CSS):** Wheeling charges based on recovery of (1) costs plus regulated charges of wire and retail business, and (2) cross subsidy surcharge (CSS) to compensate for loss of high paying customers

While covering costs only for the wire business looks most logical, incumbent discoms may also be compensated for loss of retail business and loss of higher tariff-paying customers that are used to cross-subsidise lower tariffs in other segments through CSS.

CSS payments, however, go against the spirit of the proposed Electricity Amendment Bill 2021 which intends that (1) discoms charge market rates, and (2) state governments looking to reduce the burden on residential and agriculture sectors should compensate relevant customers through the direct beneficiary transfer (DBT) route while letting the discom charge a market-based tariff. See Appendix 2 for key features of the draft bill.

### Potential market of up to Rs 3.7tn

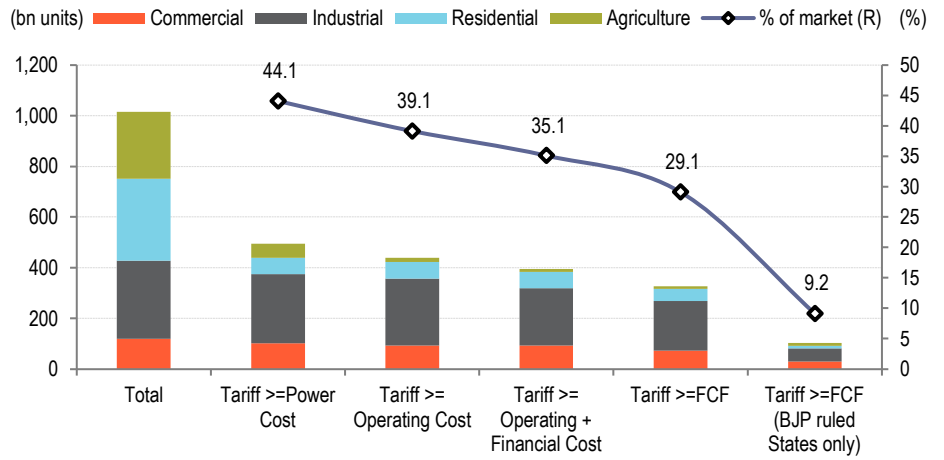
---

Up to 29% of the market could be targeted by new entrants

Assuming delicensing becomes a reality in mid-FY23, we estimate that 4-29% of India's electricity market may be financially feasible for suppliers to target at current tariffs, implying a Rs 0.5tn-3.7tn opportunity by FY27 – by which time we expect regulations and competitive dynamics to have evolved suitably. Our analysis is based on segment-wise tariffs, cost of power purchase, technical losses and operational/capital costs in the top 15 power-consuming states (87% of total consumption), whereupon we arrive at an all-India estimate.

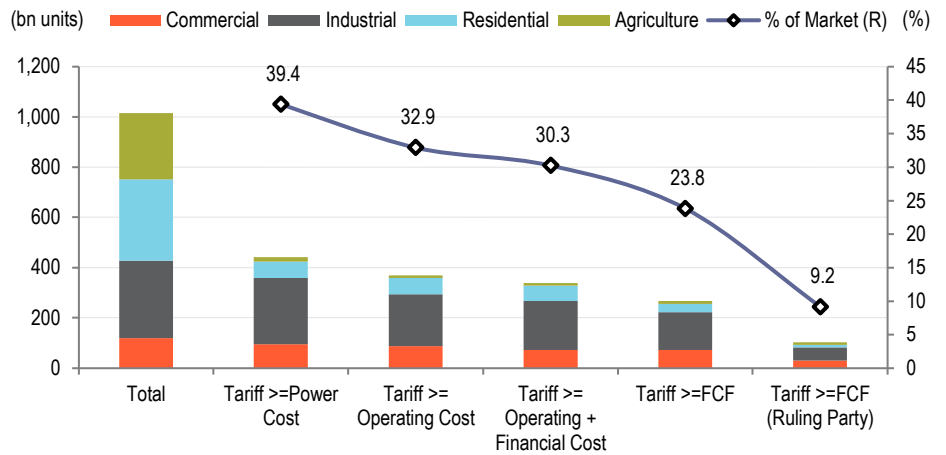
- The wide market opportunity range is because of the different possible approaches to calculate wheeling charges and the extent to which this reform will be implemented across states.
- We also assume that companies will only target customer groups which currently pay tariffs that can cover the estimated operational, financial and capital costs – this will limit the market largely to commercial and industrial customers.
- Besides state-related political factors, operational factors are extremely critical. New entrants will be using the supply network of incumbent discoms and therefore technical losses will be an important consideration as larger losses would require a higher spread over power costs to break even. In addition, potentially more investment will be needed in places with higher AT&C losses. We have assumed that technical losses will fall by 1% every year.
- We also factor in the cost of power but have not taken into account expiring PPAs of incumbents in our estimates though these may become a factor in choosing regions to target as a large proportion of expiring PPAs would offer flexibility to new entrants to procure their own power. See Appendix 1 for our detailed assumptions.

**Fig 3 – Potential market for top 15 states in Scenario A (Wheeling Charge = Wire Business Costs + Regulated Returns)**



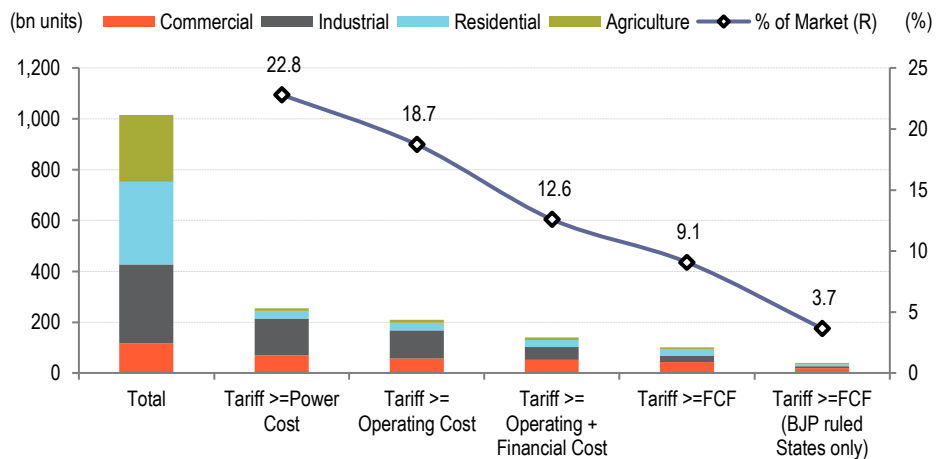
Source: BOBCAPS Research

**Fig 4 – Potential market for top 15 states in Scenario B (Wheeling Charge = Wire & Retail Business Costs + Regulated Returns)**



Source: BOBCAPS Research

**Fig 5 – Potential market for top 15 states in Scenario C (Wheeling Charge = Wire & Retail Business Costs + Regulated Returns + CSS)**



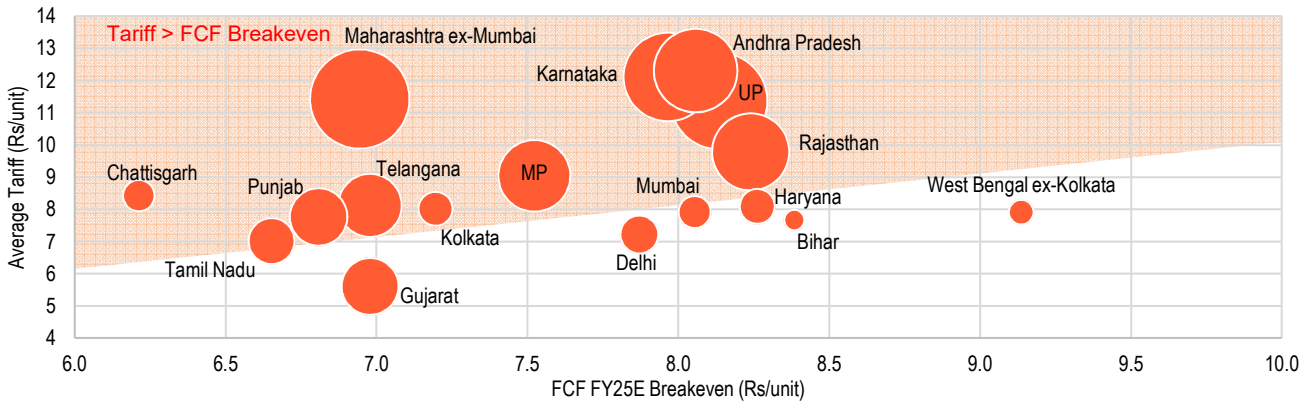
Source: BOBCAPS Research

### Top states to see most of the action

Our analysis shows that Uttar Pradesh, Tamil Nadu, Maharashtra, Telangana and Karnataka are the most attractive in terms of profitability based on free cash flow breakeven by FY25. Note that the cost of power procurement, technical losses and prevailing tariffs are the key factors that determine profitability.

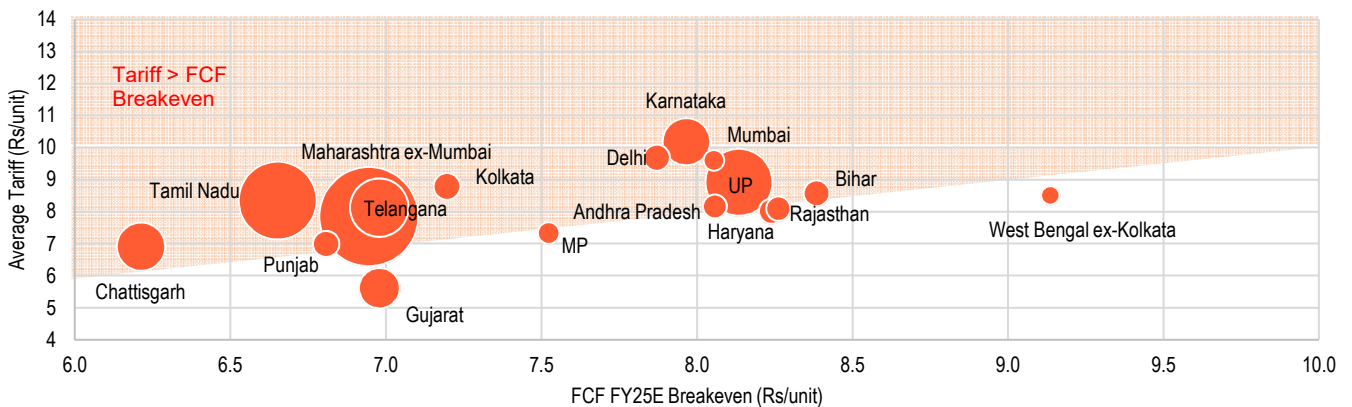
For our calculations, we have assumed average tariff as the weighted average of the lower-end (80% weight) and upper-end (20% weight) of the variable tariff in each state after scaling it up to account for the fixed tariff component. Market size is then estimated for different tariff points that will cover the following costs by FY25: (1) the cost of power procurement and wheeling charges, (2) operating costs, and (3) operating and financial costs (net income breakeven).

**Fig 6 – Commercial segment: Average tariff vs. breakeven tariff in Scenario A (Wheeling Charge = Wire Business Costs + Regulated Returns)**



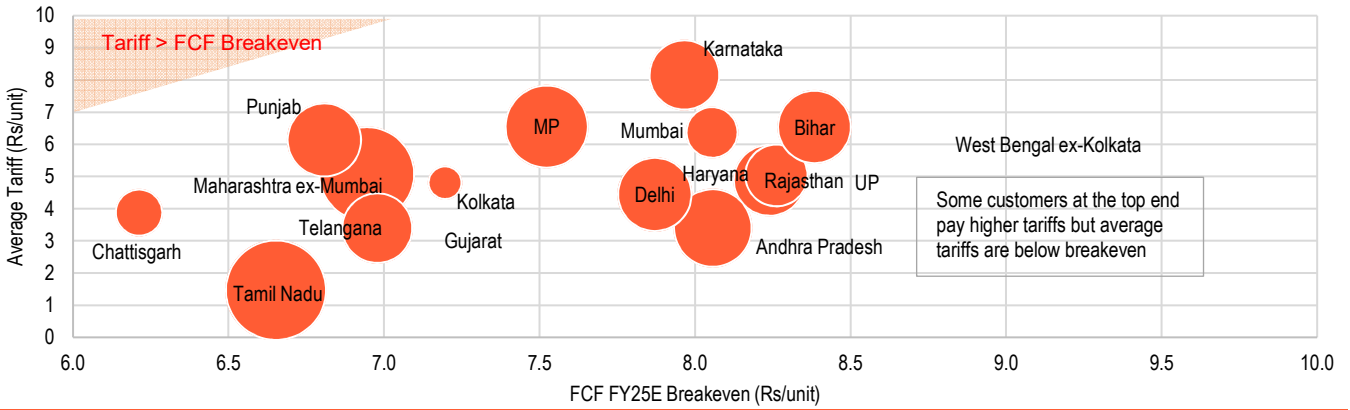
Source: Regulatory Filings, BOBCAPS Research | Size of circle indicates potential market

**Fig 7 – Industrial segment: Average tariff vs. breakeven tariff in Scenario A (Wheeling Charge = Wire Business Costs + Regulated Returns)**



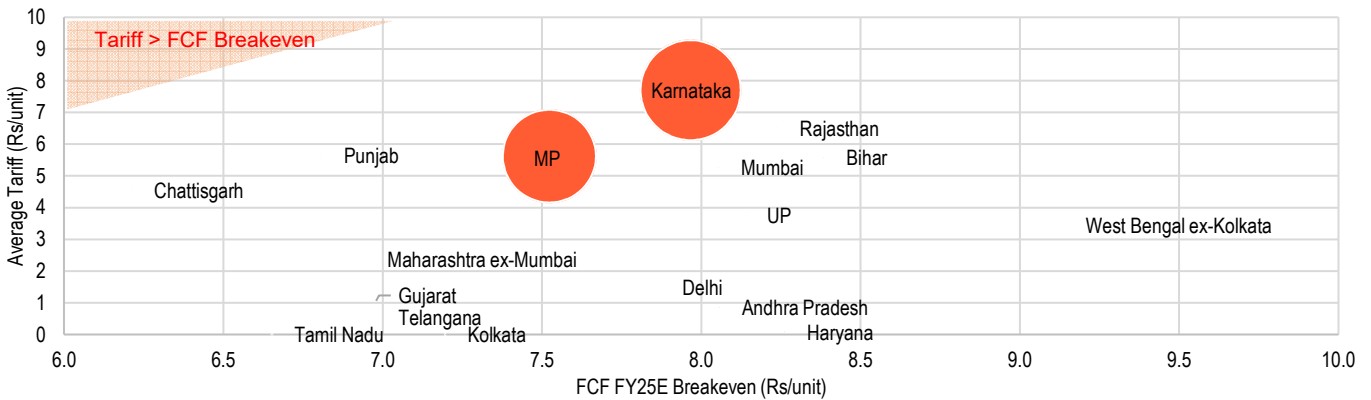
Source: Regulatory Filings, BOBCAPS Research | Size of circle indicates potential market

**Fig 8 – Residential segment: Average tariff vs. breakeven tariff in Scenario A (Wheeling Charge = Wire Business Costs + Regulated Returns)**



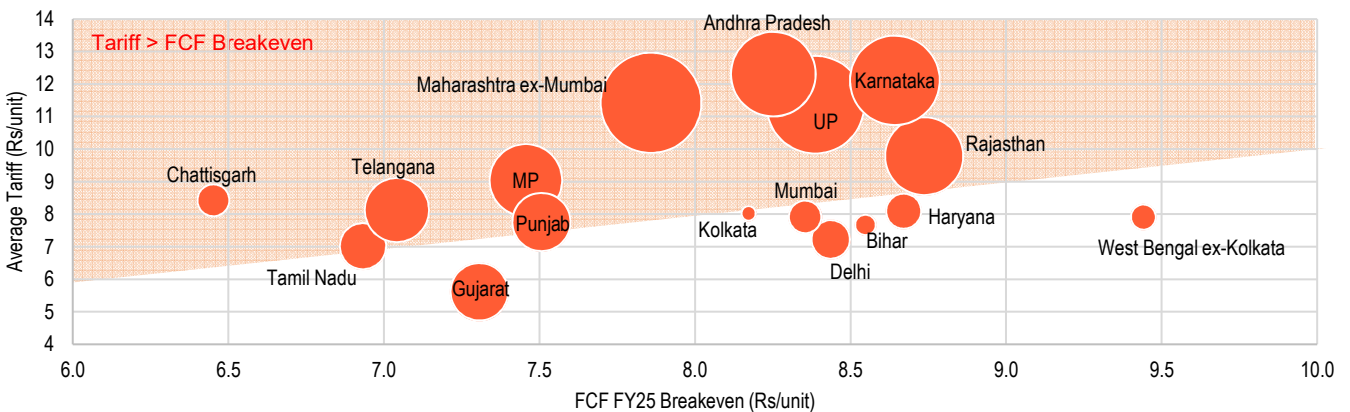
Source: Regulatory Filings, BOBCAPS Research | Size of circle indicates potential market

**Fig 9 – Agriculture segment: Average tariff vs. breakeven tariff in Scenario A (Wheeling Charge = Wire Business Costs + Regulated Returns). Bubbles colored only for MP & Karnataka as they are the only state where customers at the upper end of the tariff range may offer potential**



Source: Regulatory Filings, BOBCAPS Research | Size of circle indicates potential market

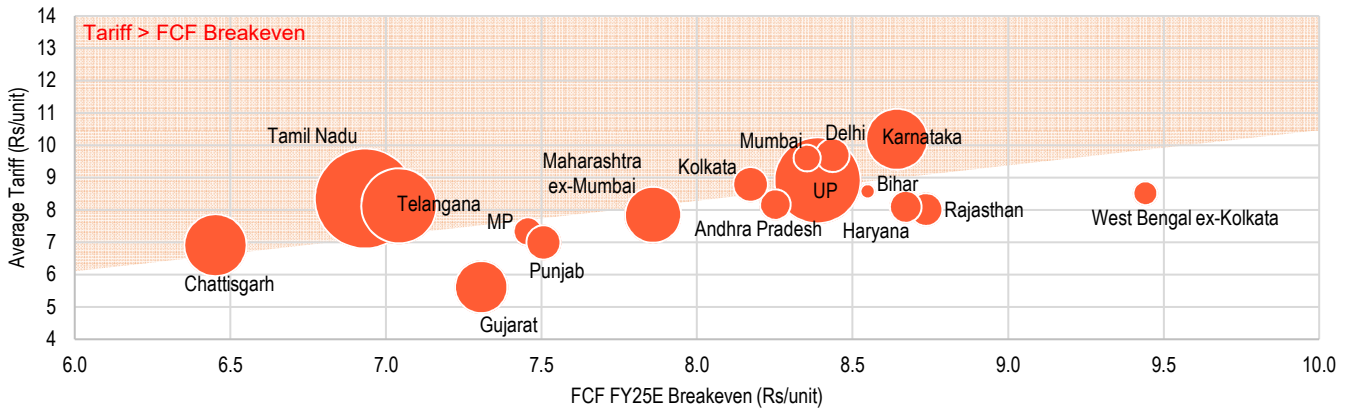
**Fig 10 – Commercial segment: Average tariff vs. breakeven tariff in Scenario B (Wheeling Charge = Wire & Retail Business Costs + Regulated Returns)**



Source: Regulatory Filings, BOBCAPS Research | Size of circle indicates potential market

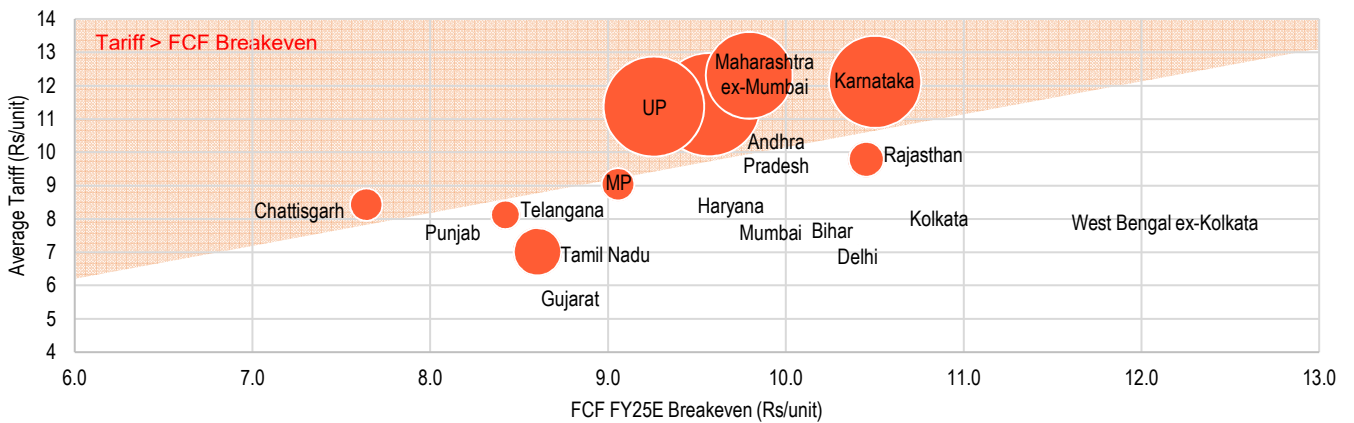


**Fig 11 – Industrial segment: Average tariff vs. breakeven tariff in Scenario B (Wheeling Charge = Wire & Retail Business Costs + Regulated Returns)**



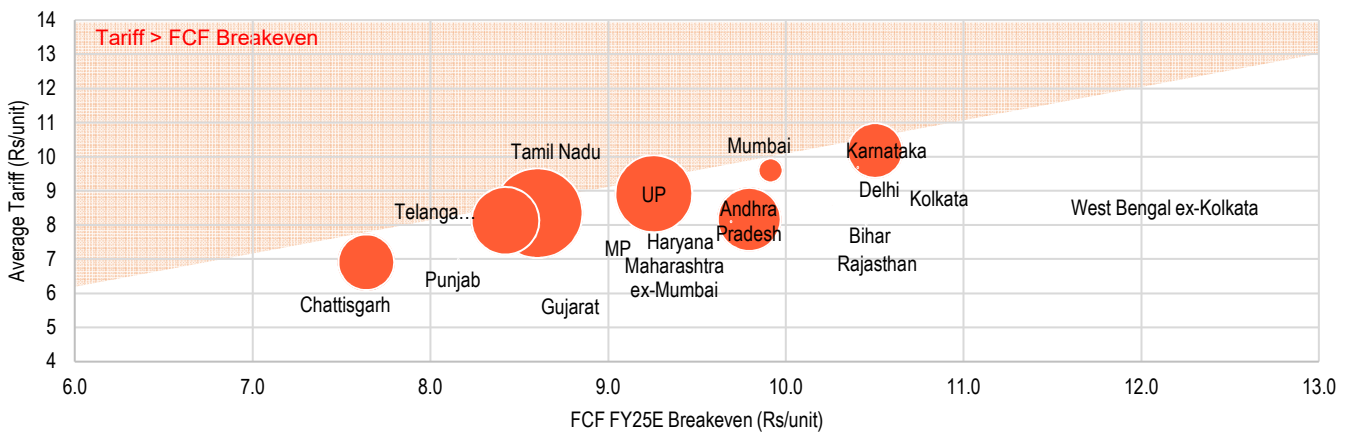
Source: Regulatory Filings, BOBCAPS Research | Size of circle indicates potential market

**Fig 12 – Commercial segment: Average tariff vs. breakeven tariff in Scenario C (Wheeling Charge = Wire & Retail Business Costs + Regulated Returns + CSS)**



Source: Regulatory Filings, BOBCAPS Research | Size of circle indicates potential market

**Fig 13 – Industrial segment: Average tariff vs. breakeven tariff in Scenario C (Wheeling Charge = Wire & Retail Business Costs + Regulated Returns + CSS)**



Source: Regulatory Filings, BOBCAPS Research | Size of circle indicates potential market

**Fig 14 – Addressable market by state in Scenario A (Wheeling Charge = Wire Business Costs + Regulated Returns) based on FY20 consumption**

State	(bn units)					% of Total (Breakeven tariff less than lower end of tariff = 100. Lower than upper end but above lower end = 20. Higher than upper end = 0)				
	Commercial	Industrial	Residential	Agriculture	Total	Commercial	Industrial	Residential	Agriculture	% of Total
Uttar Pradesh	10.4	24.2	-	-	34.5	100.0	100.0	-	-	28.5
Tamil Nadu	2.4	32.6	6.5	-	41.6	20.0	100.0	20.0	-	38.2
Maharashtra ex-Mumbai	11.0	52.3	5.8	-	69.1	100.0	100.0	20.0	-	50.6
Telangana	4.5	18.6	3.2	-	26.3	100.0	100.0	20.0	-	38.5
Karnataka	8.7	12.4	3.2	5.8	30.1	100.0	100.0	20.0	20.0	41.4
Madhya Pradesh	5.8	2.8	4.5	5.0	18.0	100.0	20.0	20.0	20.0	23.7
Andhra Pradesh	7.8	3.2	4.0	-	15.0	100.0	20.0	20.0	-	22.9
Gujarat	3.6	9.1	-	-	12.8	20.0	20.0	-	-	11.2
Rajasthan	6.6	3.7	3.3	-	13.6	100.0	20.0	20.0	-	16.8
Punjab	3.7	4.0	3.5	-	11.3	100.0	20.0	20.0	-	19.9
Chattisgarh	1.2	12.8	1.4	-	15.4	100.0	100.0	20.0	-	51.2
West Bengal ex-Kolkata	0.7	2.0	-	-	2.7	20.0	20.0	-	-	6.4
Mumbai	1.2	2.5	1.7	-	5.5	20.0	100.0	20.0	-	29.6
Delhi	1.7	3.9	3.6	-	9.1	20.0	100.0	20.0	-	27.7
Kolkata	1.3	4.1	0.7	-	6.2	100.0	100.0	20.0	-	64.2
Bihar	0.5	3.9	3.5	-	7.8	20.0	100.0	20.0	-	24.9
Haryana	1.4	3.5	2.6	-	7.5	20.0	20.0	20.0	-	13.7
<b>Top 15* States</b>	<b>72.5</b>	<b>195.6</b>	<b>47.6</b>	<b>10.9</b>	<b>326.6</b>	<b>61.1</b>	<b>63.3</b>	<b>14.7</b>	<b>4.1</b>	<b>29.1</b>
<b>BJP-ruled States</b>	<b>29.9</b>	<b>51.9</b>	<b>10.2</b>	<b>10.9</b>	<b>102.9</b>	<b>25.2</b>	<b>16.8</b>	<b>3.2</b>	<b>4.1</b>	<b>9.2</b>

Source: BOBCAPS Research | \*Maharashtra is broken up into Maharashtra ex-Mumbai and Mumbai & West Bengal is broken up into West Bengal ex-Kolkata and Kolkata as both Mumbai and Kolkata are large consumers of electricity and their consumption mix is different from the rest of the state

**Fig 15 – Addressable market by state in Scenario B (Wheeling Charge = Wire & Retail Business Costs + Regulated Returns) based on FY20 consumption**

State	(bn units)					% of Total (Breakeven tariff less than lower end of tariff =100. Lower than upper end but above lower end =20. Higher than upper end = 0)				
	Commercial	Industrial	Residential	Agriculture	Total	Commercial	Industrial	Residential	Agriculture	% of Total
Uttar Pradesh	10.4	24.2	-	-	34.5	100.0	100.0	-	-	28.5
Tamil Nadu	2.4	32.6	-	-	35.0	20.0	100.0	-	-	32.2
Maharashtra ex-Mumbai	11.0	10.5	5.8	-	27.3	100.0	20.0	20.0	-	19.9
Telangana	4.5	18.6	3.2	-	26.3	100.0	100.0	20.0	-	38.5
Karnataka	8.7	12.4	3.2	5.8	30.1	100.0	100.0	20.0	20.0	41.4
Madhya Pradesh	5.8	2.8	4.5	5.0	18.0	100.0	20.0	20.0	20.0	23.7
Andhra Pradesh	7.8	3.2	4.0	-	15.0	100.0	20.0	20.0	-	22.9
Gujarat	3.6	9.1	-	-	12.8	20.0	20.0	-	-	11.2
Rajasthan	6.6	3.7	-	-	10.3	100.0	20.0	-	-	12.7
Punjab	3.7	4.0	3.5	-	11.3	100.0	20.0	20.0	-	19.9
Chattisgarh	1.2	12.8	1.4	-	15.4	100.0	100.0	20.0	-	51.2
West Bengal ex-Kolkata	0.7	2.0	-	-	2.7	20.0	20.0	-	-	6.4
Mumbai	1.2	2.5	1.7	-	5.5	20.0	100.0	20.0	-	29.6
Delhi	1.7	3.9	3.6	-	9.1	20.0	100.0	20.0	-	27.7
Kolkata	0.3	4.1	0.7	-	5.1	20.0	100.0	20.0	-	53.0
Bihar	0.5	0.8	-	-	1.3	20.0	20.0	-	-	4.0
Haryana	1.4	3.5	2.6	-	7.5	20.0	20.0	20.0	-	13.7
<b>Top 15* States</b>	<b>71.5</b>	<b>150.7</b>	<b>34.3</b>	<b>10.9</b>	<b>267.3</b>	<b>60.2</b>	<b>48.8</b>	<b>10.6</b>	<b>4.1</b>	<b>23.8</b>
<b>BJP-ruled States</b>	<b>29.9</b>	<b>51.9</b>	<b>10.2</b>	<b>10.9</b>	<b>102.9</b>	<b>25.2</b>	<b>16.8</b>	<b>3.2</b>	<b>4.1</b>	<b>9.2</b>

Source: BOBCAPS Research | \*Maharashtra is broken up into Maharashtra ex-Mumbai and Mumbai & West Bengal is broken up into West Bengal ex-Kolkata and Kolkata as both Mumbai and Kolkata are large consumers of electricity and their consumption mix is different from the rest of the state

**Fig 16 – Addressable market by state in Scenario C (Wheeling Charge = Wire & Retail Business Costs + Regulated Returns + CSS) based on FY20 consumption**

State	(bn units)					% of Total (Breakeven Tariff less than lower end of tariff =100. Lower than upper end but above lower end =20; higher than upper end = 0				
	Commercial	Industrial	Residential	Agriculture	Total	Commercial	Industrial	Residential	Agriculture	% of Total
Uttar Pradesh	10.4	4.8	-	-	15.2	100.0	20.0	-	-	12.6
Tamil Nadu	2.4	6.5	-	-	8.9	20.0	20.0	-	-	8.2
Maharashtra ex-Mumbai	11.0	-	5.8	-	16.8	100.0	-	20.0	-	12.3
Telangana	0.9	3.7	3.2	-	7.8	20.0	20.0	20.0	-	11.5
Karnataka	8.7	2.5	3.2	5.8	20.2	100.0	20.0	20.0	20.0	27.8
Madhya Pradesh	1.2	-	4.5	-	5.6	20.0	-	20.0	-	7.4
Andhra Pradesh	7.8	3.2	4.0	-	15.0	100.0	20.0	20.0	-	22.9
Gujarat	-	-	-	-	-	-	-	-	-	-
Rajasthan	1.3	-	-	-	1.3	20.0	-	-	-	1.6
Punjab	-	-	3.5	-	3.5	-	-	20.0	-	6.2
Chhattisgarh	1.2	2.6	1.4	-	5.2	100.0	20.0	20.0	-	17.2
West Bengal ex-Kolkata	-	-	-	-	-	-	-	-	-	-
Mumbai	-	0.5	1.7	-	2.2	-	20.0	20.0	-	12.1
Delhi	-	-	-	-	-	-	-	-	-	-
Kolkata	-	-	-	-	-	-	-	-	-	-
Bihar	-	-	-	-	-	-	-	-	-	-
Haryana	-	-	-	-	-	-	-	-	-	-
All India*	44.8	23.9	27.4	5.8	101.9	37.7	7.7	8.5	2.2	9.1
BJP-ruled States	20.2	7.3	7.7	5.8	41.0	17.0	2.4	2.4	2.2	3.7

Source: BOBCAPS Research | \*Maharashtra is broken up into Maharashtra ex-Mumbai and Mumbai & West Bengal is broken up into West Bengal ex-Kolkata and Kolkata as both Mumbai and Kolkata are large consumers of electricity and their consumption mix is different from the rest of the state

## Intense competition likely but top 3 could corner +50% share

We expect intense competition in India’s distribution sector post delicensing as the capital investment required to start operations is limited and hence a large number of suppliers are likely to enter the fray. Europe, which opened its electricity retail market nearly two decades ago, has over 100 electricity suppliers in some countries. Nevertheless, in most European countries, the top 3 players continue to have a combined market share of above 60%. The Philippines, which started opening up in 2013, also has 46 electricity suppliers but the market share of the top 3 has gradually increased to over 70%.

Given India’s size and diversity, the industry will be fragmented but we believe the top 3 or 4 players that have been in the distribution business for decades would be able to capture over 50% of the market.

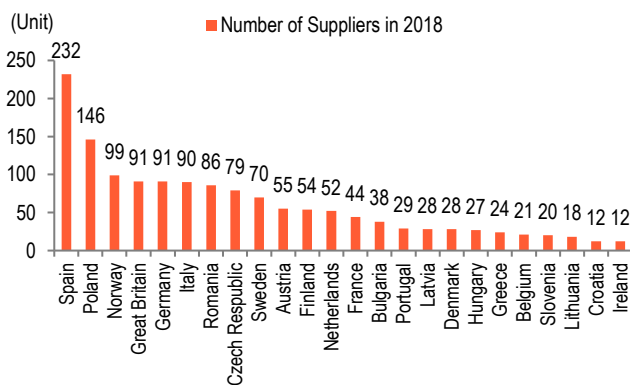
### Lessons from Europe

Europe began opening up its electricity market to retail competition over 15 years ago. Subsequently, a number of players entered the market with countries like Spain now having over 200 suppliers. Customer migration to new service providers in many countries is higher than 10% each year.

Europe has distribution system operators (DSO) who manage the grid and are allowed to recover costs and receive a return on their investments. Since 2009, DSOs have to be unbundled or their network operator functions have to be separated from supply companies so that they can manage the grid independently. Unbundling could be functional (separate operations) or legal (separate entity).

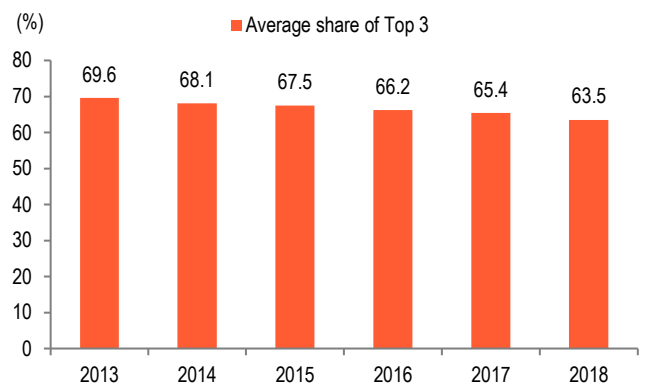
Currently, most of these companies have legal unbundling, but there are no restrictions on ownership and a company owning a DSO can also operate a power supply business. Many DSOs that manage the network are government-owned and in some countries like France and Germany, they are run as concessions by private players for a fixed period of time.

**Fig 17 – European power markets fragmented post opening up...**



Source: Council of European Energy Regulators (CEER), Monitoring Report for 2018

**Fig 18 – ...but share of top 3 players still remains high**

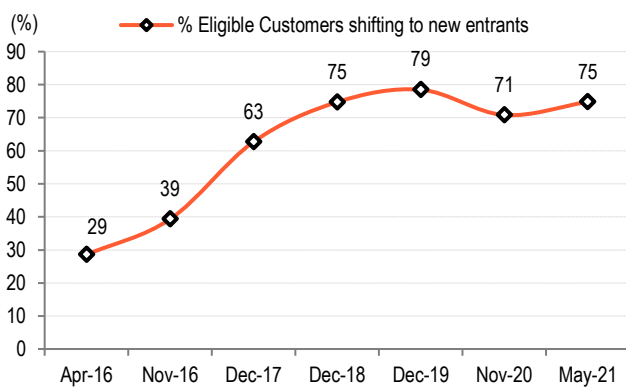


Source: Council of European Energy Regulators (CEER), Monitoring Report for 2018

## Lessons from the Philippines

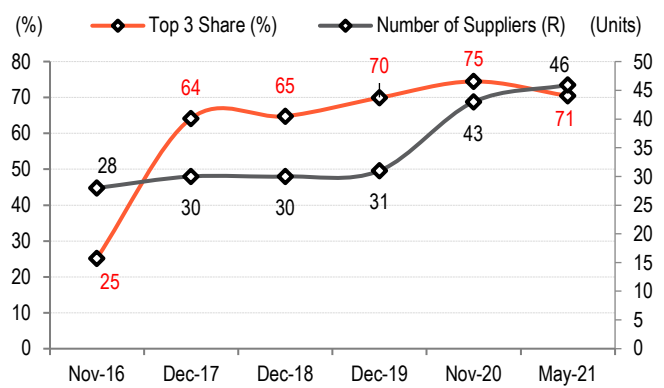
The Philippines opened up its electricity market to retail competition in Jun'13 starting with customers running a daily average load of over 1,000KW, followed by 750-999KW loads in 2018 and ultimately 500-749KW loads this year. This led to an influx of new entrants and as of May'21, and over 75% of eligible customers have shifted to the new service providers. The country had 46 retail electricity suppliers. However, over time the market share of the top 3 players has consolidated to over 70%.

**Fig 19 – Over 75% shifted to new entrants post opening up of the Philippines market (share based on load)**



Source: buyyourelectricity.com.ph

**Fig 20 – Top 3 players command +70% market share despite competing against over 40 suppliers**



Source: buyyourelectricity.com.ph

## Positive for customers and generators

We believe the opening up of India's power distribution market would yield the following positives for customers and generators:

- Lower losses and better customer service:** Delicensing is likely to induce separation of the wire business from retail, enabling focused spending on wire infrastructure. Thus, besides customers having a choice of suppliers, the quality of services should also improve and technical losses should reduce over time. The government's ongoing plan to install smart meters running on a prepaid model will play a big role in curbing commercial losses.
- Timely payment to generators but PPAs may get shorter:** Initially, existing PPAs are likely to be shared by new entrants and incumbent discoms. However, as these contracts expire, entrants may have the flexibility to buy power either from generators or the open market. Given that sale volumes may vary significantly from one year to another due to customer churn, new players may not want to be tied to long-term PPAs, making way for shorter agreements. For generators, positives could arise in the form of improved collection efficiency, leading to timely payment.

## Valuation and Risks

### Tata Power

We raise our FY22-FY24 earnings estimates for TPWR by ~1% each due to minor changes in our financial expense assumptions. Maintain BUY with a Jun'22 TP of Rs 161.

**Fig 21 – Revised estimates**

(Rs bn)	New			Old			Change (%)		
	FY22E	FY23E	FY24E	FY22E	FY23E	FY24E	FY22E	FY23E	FY24E
Revenue	469	522	557	469	522	557	-	-	-
EBITDA	75	95	123	75	95	123	-	-	-
EBIT	43	60	84	43	60	84	-	-	-
Pretax Income	28	41	59	28	41	59	0.4	0.6	0.5
Net Income	16	28	43	16	27	43	0.8	0.9	0.6
EPS (Rs per share)	5.1	8.7	13.5	5.0	8.6	13.4	0.8	0.9	0.6

Source: BOBCAPS Research

Our target price is based on an SOTP valuation, arrived at via a DCF assessment of various assets. Our valuation model discounts cash flows from the company's projects till the end of respective PPAs, assuming no extension for generation plants. For distribution assets under the regulated return model, we have assumed extension of the concession period by 25 years post-expiry.

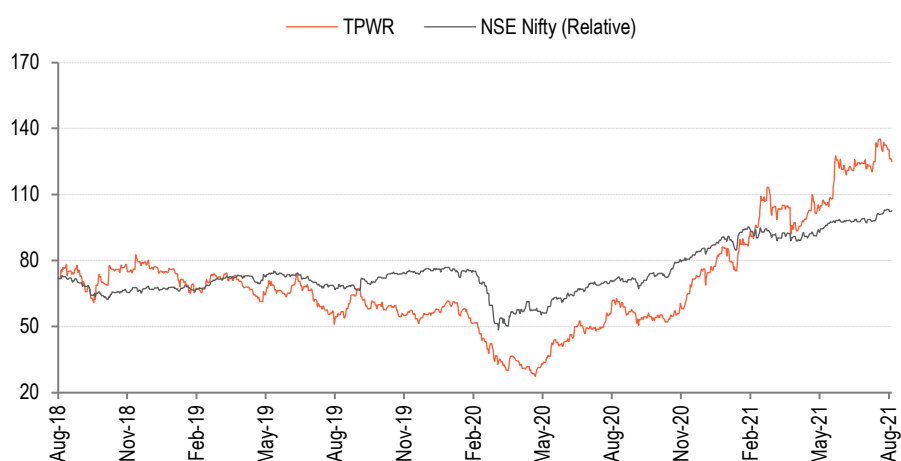
Key DCF assumptions include (1) cost of equity of 15.0% based on a risk-free rate of 6.051% as per the 10-year India bond yield as of end-Jun'21, (2) beta of 1.31 based on the last two-year weekly returns as of end-Jun'21, and (3) cost of debt of 8.0%.

**Fig 22 – SOTP valuation**

Segment (Rs mn)	EV	Net Debt FY22E	Equity Value	% Share	Contribution to Group Equity Value	EBITDA FY22E	EV/EBITDA FY22E(x)
Standalone	1,08,044	1,77,185	(69,141)	100	(69,141)	23,016	4.7
Coastal Gujarat Power (CGPL)	73,303	72,044	1,259	100	1,259	(229)	(319.6)
Maithon Power (MPL)	42,605	13,033	29,573	74	21,884	8,137	5.2
Delhi Discom (TPDDL)	86,504	27,039	59,466	51	30,328	10,610	8.2
Power Trading (TPTCL)	5,300	-	5,300	100	5,300	530	7.0
Tata Power Solar	1,42,998	7,870	1,35,128	100	1,35,128	2,923	48.9
Tata Power Renewables	1,80,124	1,01,781	78,342	100	78,342	11,464	15.7
Walwhan Renewables Energy	85,177	42,481	42,697	100	42,697	11,441	7.4
TERPL (Shipping Company)	36,096	7,398	28,698	100	28,698	4,173	8.7
Odisha Distribution	87,911	9,905	78,006	51	39,783	2,785	31.6
Ajmer	2,848	56	2,792	100	2,792	508	5.6
<b>Sub-Total (A)</b>	<b>8,50,911</b>	<b>4,58,792</b>	<b>3,92,119</b>	<b>-</b>	<b>3,17,069</b>	<b>75,358</b>	<b>11.3</b>
Elimination (B)	-	(68,086)	68,086	100	68,086	-	11.3
<b>Majority Owned (C= A+B)</b>	<b>8,50,911</b>	<b>3,90,706</b>	<b>4,60,205</b>	<b>-</b>	<b>3,85,155</b>	<b>75,358</b>	<b>11.3</b>

Segment (Rs mn)	EV	Net Debt FY22E	Equity Value	% Share	Contribution to Group Equity Value	EBITDA FY22E	EV/EBITDA FY22E(x)
<b>Associates &amp; JVs</b>							
KPC	-	-	1,47,478	30	44,243	-	-
PT Baramulti Suksesarana & PT Antang	-	-	29,496	26	7,669	-	-
PT Nusa Tambang Pratama, Indonesia (Coal Infrastructure)	-	-	6,390	30	1,917	-	-
Power Link (not consolidated)	4,696	(90)	4,786	51	2,441	-	-
Industrial Energy (not consolidated)	9,865	6,293	3,572	74	2,643	-	-
Tata Projects	-	-	-	48	15,566	-	-
Adjaristsqali Georgia LLC	-	-	-	40	1,383	-	-
Other associates	-	-	-	-	39,672	-	-
Associates Valuation (D)	-	-	-	-	<b>1,15,534</b>	-	-
Consolidated Total (E = C+D)	-	-	-	-	<b>5,00,689</b>	-	-
Number of shares (F)	-	-	-	-	3,195	-	-
Value per Share (G = F/E)	-	-	-	-	157	-	-
<b>Target Price (Rs) (H= G rounded to nearest 1)</b>	-	-	-	-	<b>161</b>	-	-

Source: BOBCAPS Research

**Fig 23 – Stock performance**

Source: NSE

**Key risks**

- Intense competition could lead to deterioration in the outlook for renewables and drive a sharp drop in tariffs. The possibility of discoms renegeing on contracts and delaying payments can also impact generation returns.
- The distribution business could see fewer opportunities if power sector reforms are sluggish or new regulations make business unviable. In addition, a drop in regulatory returns due to lower interest rates would be a negative.
- A sharp rise in coal prices could fuel a steep increase in losses for CGPL, albeit partly compensated for by higher contribution from coal mining operations.

## Torrent Power

TPW is trading close to its peak consensus FY22E EV/EBITDA multiple of 7.2x. We reiterate HOLD with a Jun'22 TP of Rs 461, which implies 7.2x FY22E EV/EBITDA and translates to an upside of 7%. The company has a strong presence in the growing distribution sector, but renewal of the flagship Ahmedabad contract in 2025 and tariff renewal this year are concerns. Also, the stranded DGen gas plant will continue to struggle for PPAs as demand for gas-based power remains weak.

We estimate a 12% EPS CAGR for the company over FY21-FY23 as AT&C losses normalise from the higher levels seen in FY21 due to Covid-19 and as commercial operations begin at new renewable plants. Our estimates are in line with consensus and are based on the plant load factor for generation, AT&C losses for the distribution business and growth in the renewable's portfolio.

Our target price is based on an SOTP valuation, arrived at via a DCF assessment of various assets. Our model discounts the cash flows of the company's projects till the current PPA lasts, assuming no extension for generation plants. For distribution assets under the regulated return model, we have assumed extension of the concession period by another 25 years post-expiry.

Key DCF assumptions include (1) cost of equity of 9.4% based on a risk-free rate of 6.12% as per the 10-year India bond yield as of end-Mar'21, (2) market risk premium of 6.85% based on NYU Stern estimates, (3) beta of 0.48 as per the last two-year weekly returns as of end-Mar'21, and (4) cost of debt of 8.5% factoring in the company's current debt cost.

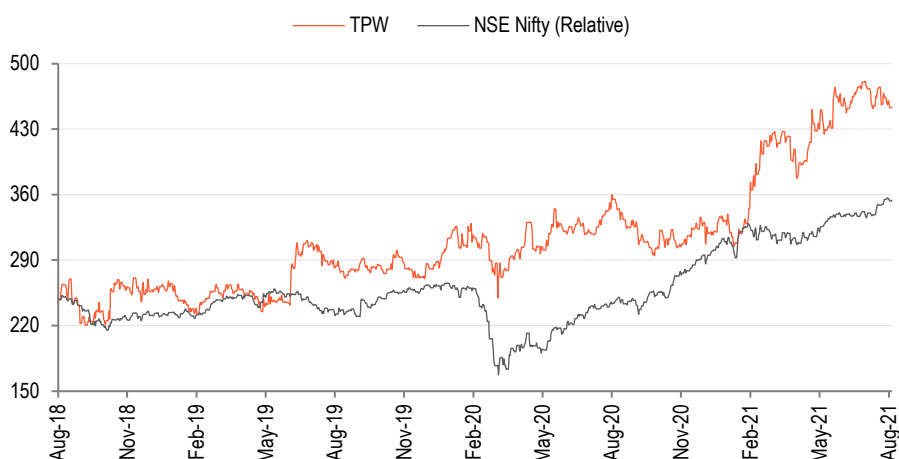
**Fig 24 – SOTP valuation**

Segment (Rs mn)	EV	Net Debt FY22E	Equity Value	% Share	Contribution to Group Equity Value	EBITDA FY22E	EV/EBITDA (x)
<b>Generation</b>							
Sugen	18,978	5,914	13,064	100	13,064	3,253	5.8
Amgen	592	4,145	(3,553)	100	(3,553)	2,263	0.3
Unosugen	19,031	6,074	12,957	100	12,957	2,585	7.4
Dgen	(2,899)	37,929	(40,828)	100	(40,828)	(300)	9.7
Merchant Market	630	-	630	100	630	72	8.7
<b>Sub – Total (A)</b>	<b>36,332</b>	<b>54,062</b>	<b>(18,360)</b>		<b>(18,360)</b>	<b>7,800</b>	<b>4.7</b>
<b>Renewables (B)</b>	<b>58,151</b>	<b>22,969</b>	<b>35,183</b>	<b>100</b>	<b>35,183</b>	<b>6,551</b>	<b>8.9</b>
<b>Distribution</b>							
Ahmedabad / Gandhinagar	88,459	33,190	55,269	100	55,269	9,256	9.6
Surat	24,508	2,778	21,730	100	21,730	2,278	10.8
Dahej	1,557	343	1,215	100	1,215	187	8.3
Bhiwandi	25,459	1,494	23,965	100	23,965	6,909	3.7
Agra	8,654	7,423	1,230	100	1,230	1,489	5.8
Dholera	1,693	1,892	(198)	100	(198)	231	7.3
Shil, Mumbra and Kalwa (SMK)	309	3,326	(3,017)	100	(3,017)	(913)	(0.3)
<b>Sub-Total (C)</b>	<b>1,50,640</b>	<b>50,446</b>	<b>1,00,194</b>		<b>1,00,194</b>	<b>19,438</b>	<b>7.7</b>
<b>Transmission (D)</b>	<b>2,684</b>	<b>252</b>	<b>2,432</b>	<b>67</b>	<b>1,620</b>	<b>400</b>	<b>6.7</b>
Elimination / Corporate Costs (E)	30,192	(70,683)	1,00,874	100	1,00,874	4,165	7.2



Segment (Rs mn)	EV	Net Debt FY22E	Equity Value	% Share	Contribution to Group Equity Value	EBITDA FY22E	EV/EBITDA (x)
<b>Consolidated (F=A+B+C+D+E)</b>	<b>2,75,315</b>	<b>57,047</b>	<b>2,17,891</b>		<b>2,19,511</b>	<b>38,354</b>	<b>7.2</b>
Number of share (mn) (G)	-	-	-	-	481	-	-
Price (Rs/sh) (H= G /F)	-	-	-	-	457	-	-
<b>Target Price (Rs/sh) – (I - H rounded to nearest 1)</b>	-	-	-	-	<b>461</b>	-	-

Source: BOBCAPS Research

**Fig 25 – Stock performance**

Source: NSE

**Key risks**

- Upside risks include new distribution or renewable project wins, PPAs for the DGen plant and government incentives for gas power plants.
- Downside risks include negative news flow on tariff resetting for Ahmedabad and a sharp rise in gas price which could impact UnoSugen plant earnings as it has a ceiling beyond which passthrough on gas cost is disallowed.

**CESC**

CESC is currently trading at 5.9x FY22E EV/EBITDA, a discount to the 10-year mean. We retain HOLD with an unchanged Jun'22 TP of Rs 751, which implies 5.8x FY22E EV/EBITDA or a discount to the 12M forward mean.

Our target price is based on an SOTP valuation, arrived at via a DCF assessment of various assets. Our valuation model discounts cash flows from the company's generation projects till the end of respective PPAs, assuming no extension. For distribution licenses in Kolkata and Greater Noida, we have assumed extension for another 25 years after the current concessions end. For renewable projects, we have factored in the remaining life based on the standard 25-year PPAs.

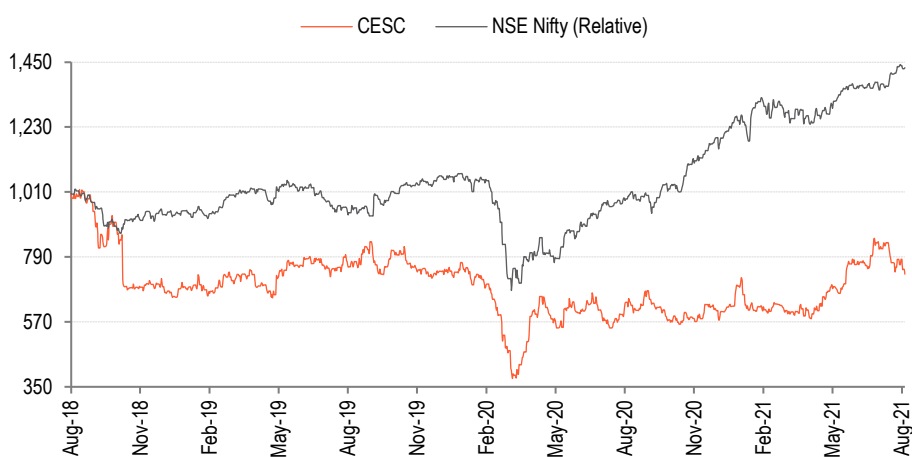
Key DCF assumptions include (1) cost of equity of 11.9% based on a risk-free rate of 6.12% as per the 10-year India bond yield as of end-Mar'21, (2) beta of 0.84 based on the last two-year weekly returns as of end-Mar'21, and (3) cost of debt of 9% factoring in the company's current debt cost.

Fig 26 – SOTP valuation

Segment (Rs mn)	EV	Net Debt FY22E	Equity Value	% Share	Contribution to Group Equity Value	EBITDA FY22E	EV/EBITDA (x)
<b>Distribution</b>							
Kolkata & Howrah	78,561	31,462	47,099	100	47,099	18,700	4.2
Noida	20,272	2,348	17,924	73	13,036	2,998	6.8
Kota	1,322	2,125	(804)	100	(804)	(199)	(6.7)
Bikaner	315	587	(272)	100	(272)	0	2,021.4
Bharatpur	1,599	224	1,375	100	1,375	181	8.8
Malegaon	328	8,768	(8,440)	100	(8,440)	388	0.8
<b>Subtotal (A)</b>	<b>1,02,396</b>	<b>45,514</b>	<b>56,883</b>	<b>-</b>	<b>51,995</b>	<b>19,071</b>	<b>5.4</b>
<b>Renewables (B)</b>	<b>12,927</b>	<b>6,312</b>	<b>6,615</b>	<b>100</b>	<b>6,615</b>	<b>1,593</b>	<b>8.1</b>
<b>Generation</b>							
Haldia Power	56,096	25,340	30,756	100	30,756	8,759	6.4
Dhariwal Infrastructure	20,511	26,913	(6,402)	100	(6,402)	3,589	5.7
Crescent Power	147	1,292	(1,145)	68	(777)	230	0.6
<b>Subtotal (C)</b>	<b>76,753</b>	<b>53,545</b>	<b>23,209</b>	<b>-</b>	<b>23,577</b>	<b>12,578</b>	<b>6.1</b>
Others (D)	19,217	1,965	17,251	100	17,251	3,326	5.8
<b>Consolidated (E= A+B+C+D)</b>	<b>2,11,293</b>	<b>1,07,335</b>	<b>1,03,958</b>	<b>-</b>	<b>99,438</b>	<b>36,567</b>	<b>5.8</b>
Number of shares (mn) (F)	-	-	-	-	133	-	-
Value (Rs/sh) (G = E divided by F)	-	-	-	-	750	-	-
<b>Target Price (Rs) (H= F – rounded to nearest 1)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>751</b>	<b>-</b>	<b>-</b>

Source: BOBCAPS Research

Fig 27 – Stock performance



Source: NSE

### Key risks

- Upside risks include the company winning new distribution concessions, and Dhariwal Infrastructure winning a long-term PPA.
- Downside risks include regulatory changes such as a reduction in rate of regulatory returns and delays in proposed regulatory changes including the Electricity Amendment Bill 2021.

## Appendix 1: Key assumptions

Our estimate of a potential Rs 0.5tn-3.7tn market opportunity should the Indian electricity sector be opened up is based on the segmental tariff and demand composition of the top 15 states which together make up 87% of the country's power consumption.

### The big questions

- **What happens to private discoms that are in private hands?** We assume that they will continue operating the distribution network (like DSOs in Europe), earning their regulated returns. The new entrants will pay them for power based on their average procurement price and share in volumes procured. The technical but not the commercial loss burden will also be shared by the private discoms. This is because we believe an entity is needed to manage the distribution infrastructure. We expect incumbents' retail business to continue but they may have to legally separate it from the infrastructure business.
- **Will the new discoms be allowed to procure power in addition to that bought through PPAs of the incumbent?** We assume that the procurement of power will continue through existing power purchase agreements but as these PPAs expire, suppliers will start procuring power directly from generators or through the power exchanges. With customer-switching becoming easier, generators may shift to short-term PPAs. Our financial analysis is, however, based on the assumption that the PPAs will continue and cost of power will remain at current levels.

### Estimation of revenues

Power tariffs in India have a fixed and a variable component that varies by state, customer type and usage. Tariffs for agriculture use and smaller residential users are generally low and are subsidised by the commercial and industrial sectors.

- To determine the variable tariff by category, we use the (a) average tariff rate if available (some discoms provide a revenue and volume breakup by category), or (b) a 4:1 weighted average of low and high tariffs.
- To determine the contribution of fixed tariffs, we use (a) the actual percentage of revenue by category if provided, (b) estimated of fixed tariff as a percentage of revenues as provided in the regulatory tariff orders, or (c) a proportion similar to the average or adjoining state if the contribution of fixed to variable tariff is not available.

### Estimation of costs

- Cost of power is based on last available information or FY22 projections as per the tariff order approved by the State Electricity Regulatory Commission. Note that the total purchase cost will also depend on technical losses. We have considered only technical losses and not commercial losses as highlighted in the project multiyear tariff (MYT) orders for various discoms. The cost of power will be shared in proportion to the sales volume of new entrants. This way, incumbent discoms will be able to cover their PPA costs.

- Wheeling charges for sharing infrastructure are based on the current costs and regulated returns. These are charges payable by the new entrant to the incumbent discom for using its network. We assume that all allowable expenses and the regulated return will be paid to the incumbent in proportion to the sales volume. There will be no change in the incumbent discom's returns under these assumptions as it will be compensated for all expenses including PPAs.
- In addition to wheeling charges, the average operating and capital spend are taken in line with the distribution franchisee businesses. Capex and operational expense such as employee costs and running costs are assumed based on the median expenditure per unit of electricity sold under private distribution (both licensee and franchisee). Depreciation cost is based on actual capex assuming a 15-year straight line method. Tax is based on a 25.2% standard taxation rate.

### Identifying potential market

We use the following filters to estimate the potential target market:

- Filter 1 – Tariff covers the cost of power procurement and wheeling charges by FY25E
- Filter 2 – Tariff covers operating costs by FY25E
- Filter 3 – Tariff covers operating and financial costs (net income breakeven) by FY25E
- Filter 4 – Tariff leads to free cash flow breakeven by FY25E
- Filter 5 – We remove states that do not have a Chief Minister from the ruling BJP party since almost all other parties have announced opposition to the new Electricity Amendment Bill 2021.

### Estimation of market share

We estimate that the top 5 private distributors will take 50% of the market and the remaining 50% share will stay with incumbents and other new entrants. This means that the incumbents will also lose customers in their own licensee/franchisee areas, but as they will continue to operate the distribution infrastructure, they will be compensated for the investments and costs they incur.

### Potential risks to our assumptions

- We assume distribution infrastructure sharing will be based on sales volume but a different model may emerge.
- Similarly, sharing of PPAs may be followed initially but ultimately new entrants may be allowed to enter new PPAs or procure power from the exchange.
- State/Central rules may require new entrants to sell a proportion of power to agriculture and poorer sections of domestic customers.
- We assume that new entrants will be allowed to set any tariff for industrial and commercial customers but will not be permitted to exceed the current tariffs for residential and agricultural customers.

**Fig 28 – Methodology for estimating addressable market**

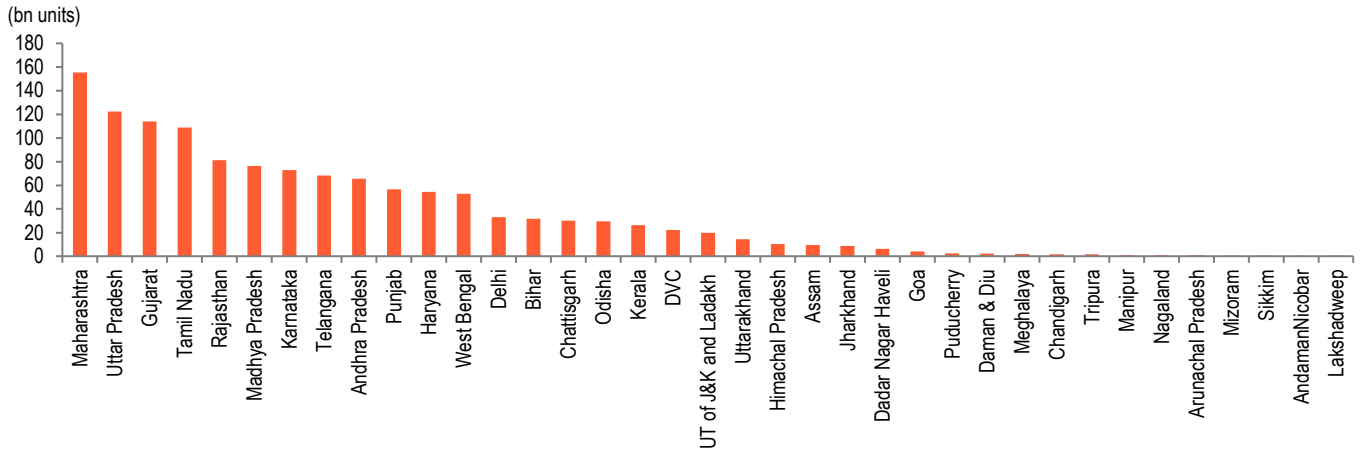
Power + Wheeling Costs	Operating + Capital Costs	Variable Tariffs	Fixed Tariffs	Breakeven Tariff	Potential Markets	Company Impact
Wheeling costs estimated based on cost and regulated return of incumbent discoms: <ul style="list-style-type: none"> <li>• Wire business</li> <li>• Wire &amp; Retail business</li> <li>• Wire &amp; Retail Business + Cross Subsidy Surcharge (CSS)</li> </ul> Technical losses estimated to come down by 1% p.a. till a minimum of 5%	Private distributors' historical costs per unit sales	Average tariff = 4:1 ratio of Low to High tariff	Estimated based on segmental revenue in regulatory filings and our estimated average variable tariff	Estimated based on tariffs covering: <ul style="list-style-type: none"> <li>Power + Wheeling Costs</li> <li>Operating Costs</li> <li>Operating + Financial Costs</li> <li>FCF breakeven in FY25</li> </ul>	Minimum Tariff <u>more than</u> Breakeven Tariff. Potential = 100% of the market  Maximum Tariff <u>more than</u> Breakeven Tariff <u>more than</u> Minimum Tariff. Potential = 20% of the market  Breakeven Tariff <u>more than</u> Maximum Tariff. Potential = 0% of the market	Top 5 to have 50% of new market  TPWR / Adani: 14.4% each  CESC/ TPW / Reliance: 7.2% each  Private distributors will also lose 50% of current customers

Source: BOBCAPS Research

## Appendix 2: Electricity distribution

India consumed 1,291bn units of power in FY20. The top 15 states account for 87% of the consumption.

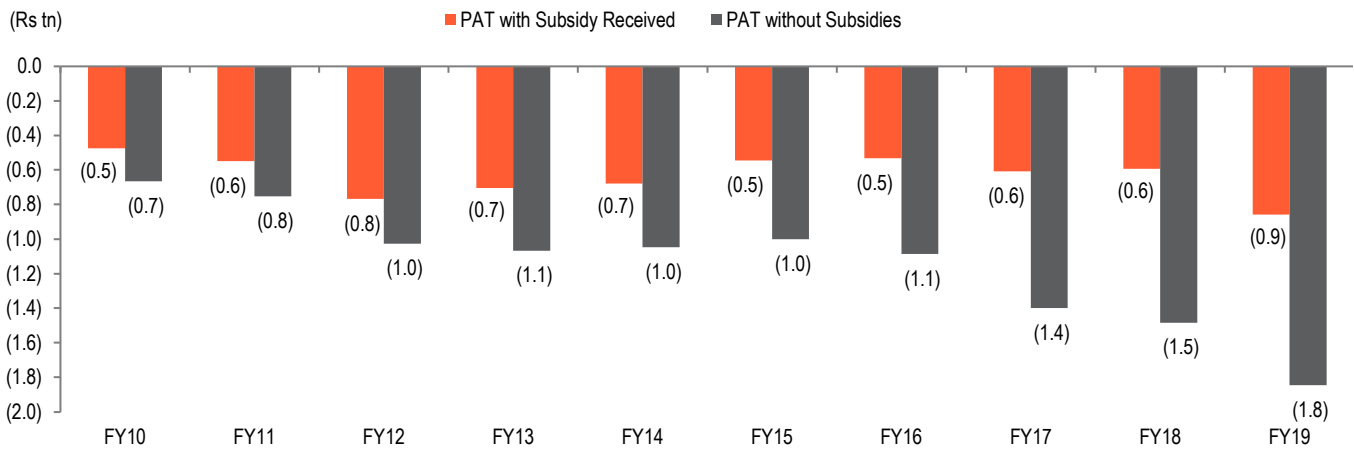
**Fig 29 – India power consumption (FY20)**



Source: POSOCO

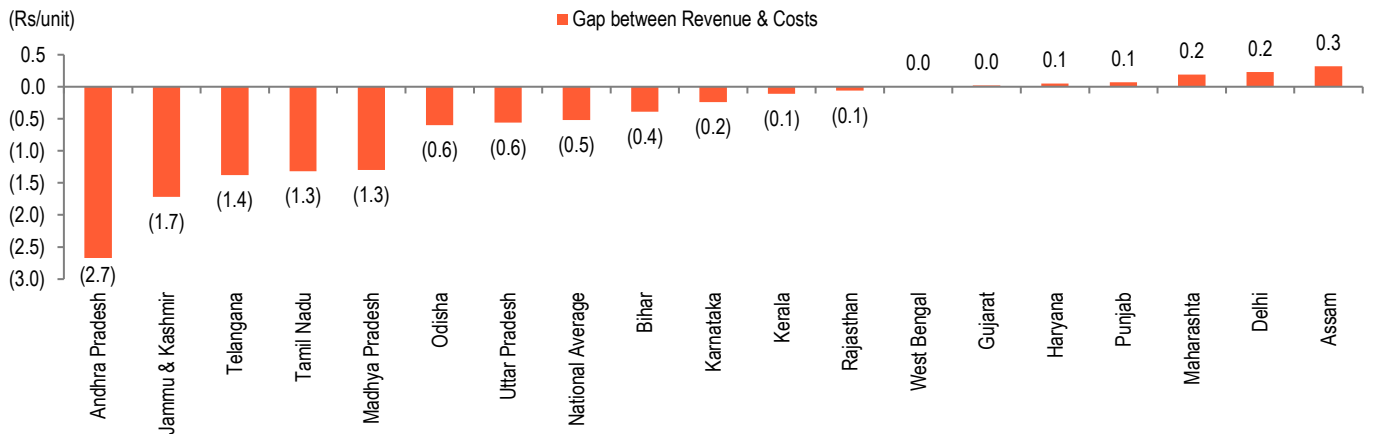
State government-owned distribution companies (discoms) face several challenges to their financial health, despite frequent funding by the central government, as highlighted in the charts below.

**Fig 30 – Combined losses of Indian discoms**



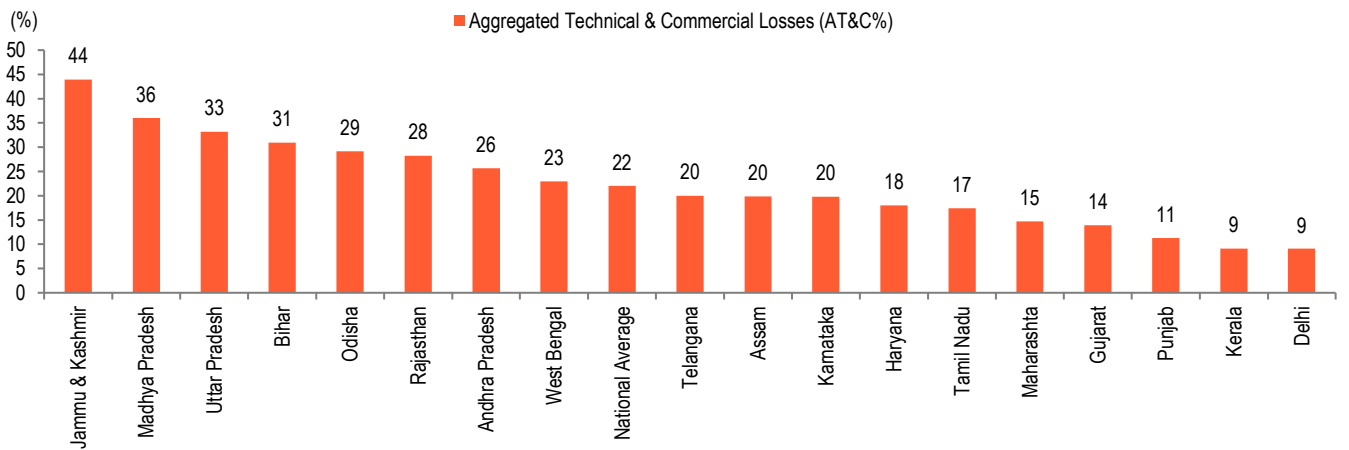
Source: Power Finance Corporation

**Fig 31 – Discoms' income-cost gap (FY19)**



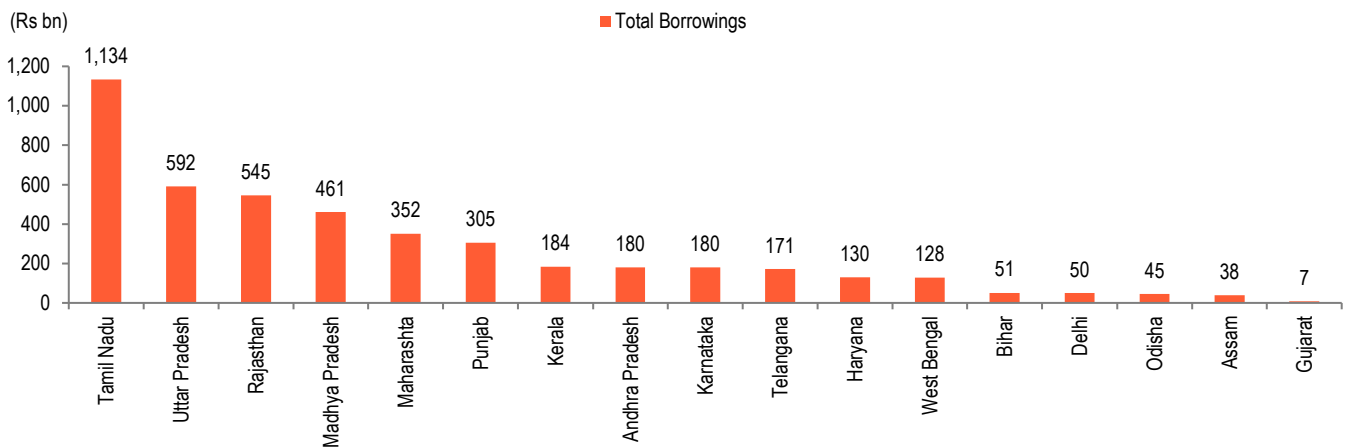
Source: Power Finance Corporation

**Fig 32 – AT&C losses are extremely high (FY19)**



Source: Power Finance Corporation

**Fig 33 – Borrowings are also ballooning (FY19)**



Source: Power Finance Corporation

- Discoms arrears to generators beyond the stipulated 45 days had crossed Rs 1tn earlier this year.
- Reneging of contracts by some discoms is also an issue.

### Appendix 3: Electricity Amendment Bill 2021 (Draft)

The Electricity Amendment Bill 2021 proposes the following:

#### Distribution delicensing

- Any person who meets the eligibility criteria prescribed to operate as a Distribution Company may commence operations in an area of supply after registration with the appropriate Commission.
- Any company which fulfils the prescribed qualification and has registered itself with the appropriate commission may supply electricity to consumers in its area of supply either using its own distribution system or by using the distribution system of another distribution company. The state authorities have to approve registration within a period of 60 days failing which the registration shall be deemed to have been granted. Application can be rejected only on the grounds that the applicant does not fulfil the qualifications prescribed for registration.
- A Distribution Company shall provide non-discriminatory access through its distribution system to all distribution companies registered within the same area of supply, subject to payment of wheeling charges and the regulation specified by the State Commission (SERC). Registered entities can approach the SERC if they are hindered in any manner from using its distribution network.
- On registration of more than one Distribution Company in an area of supply, the power from existing power purchase agreements with the existing Distribution Company, as on the date of registration of another Distribution Company, shall be shared among all the distribution companies in the area of supply. Distribution Company may enter into additional PPAs, after meeting commitments of the existing agreements, to meet any additional requirements of power without sharing with other distribution companies.

#### Tariffs

- A universal service obligation fund to be managed by a government company shall be created. Any surplus with the Distribution Company on account of cross subsidy or cross subsidy surcharge or additional surcharge shall be deposited into this fund, and this shall be utilised to fund any deficits in cross subsidy in the same or any other area of supply.
- Retail tariff will be determined without accounting for government subsidy.
- State governments (not the discom) must provide subsidy directly to the consumer in their bill through direct benefit transfer (DBT).
- Applications for determination of tariff have to be sent annually failing which SERC will trigger a process within 30 days and will order relevant suppliers to provide the required information. SERC may also have power to recommend a tariff ceiling.



## Central & State Regulatory Commissions

- A single selection committee will be set up headed by a Supreme Court judge for selection of members to central and state regulatory commissions.
- CERC Chairperson shall have adequate knowledge and experience in the power sector or have been Secretary or Additional Secretary for at least two years in central government ministries or Chief or Additional Chief Secretary dealing with power sector.
- CERC members must have persons with experience in the fields of engineering (at least one), law (one person with at least two years as district judge), finance (at least one), economics (at least one), commerce, public policy/ administration or management (at least one from these three areas).
- SERC shall consist of a Chairperson and three other Members. The Chairperson shall have experience in the power sector or have been a Chief Secretary or Additional Chief Secretary or Principal Secretary Power or equivalent for at least one year in the state government and have experience of at least two years in the power sector.
- SERC members must have experience in engineering (at least one person), law (a serving district judge recommended by State High Court Chief Justice), finance (at least one person) and at least one person from the fields of economics, commerce, public policy / public administration or management.
- The state government shall, for the purposes of selecting the members of the state commission, constitute a selection committee headed by a current/former High Court Judge with members including Chief Secretary of the State and nominee of the Central Government, not below the rank of Additional Secretary.
- Other state commissions can step in if the regulatory commission of a particular state is not functional.
- An Electricity Contract Enforcement Authority (ECEA) will be set up to ensure faster resolution of disputes and to separate legislative and judicial functions which are currently under the CERC and SERCs.
- The Appellate Tribunal for Electricity (APTEL) will have a Chairman and at least seven members with authority equivalent to a High Court and the power to issue orders to CERC and SERCs.
- There will be time-bound filling of positions in regulatory bodies in case of resignations or retirements.

## Promoting renewables

- Penalties will be imposed for non-fulfilment of obligations to buy renewable energy under the National Renewable Energy Policy.
- There will be separate purchase obligations for hydro power.
- Tariff determination and subsidies will be made more transparent.

## Payment security mechanism

- Load dispatch centres will oversee payment security mechanisms before scheduling dispatch of electricity.

## Financials – TPWR

### Income Statement

Y/E 31 Mar (Rs mn)	FY20A	FY21A	FY22E	FY23E	FY24E
<b>Total revenue</b>	<b>2,91,364</b>	<b>3,24,681</b>	<b>4,68,987</b>	<b>5,22,023</b>	<b>5,57,383</b>
EBITDA	77,541	75,387	75,358	95,054	1,23,240
Depreciation	(26,336)	(27,449)	(32,145)	(35,429)	(38,896)
EBIT	51,206	47,938	43,213	59,625	84,344
Net interest inc./(exp.)	(43,557)	(38,390)	(33,277)	(33,699)	(34,300)
Other inc./(exp.)	4,246	2,678	2,678	2,678	2,678
Exceptional items	(1,841)	(1,555)	2,950	0	0
EBT	19,579	19,405	27,944	41,076	59,265
Income taxes	(6,415)	(5,019)	(5,550)	(8,754)	(10,489)
Extraordinary items	0	0	0	0	0
Min. int./Inc. from assoc.	6,535	5,621	9,589	7,889	783
<b>Reported net profit</b>	<b>10,174</b>	<b>11,274</b>	<b>19,603</b>	<b>27,739</b>	<b>43,017</b>
Adjustments	131	(155)	(3,378)	0	0
<b>Adjusted net profit</b>	<b>10,305</b>	<b>11,119</b>	<b>16,225</b>	<b>27,739</b>	<b>43,017</b>

### Balance Sheet

Y/E 31 Mar (Rs mn)	FY20A	FY21A	FY22E	FY23E	FY24E
Accounts payables	50,954	71,201	1,02,846	1,14,477	1,22,231
Other current liabilities	50,954	73,902	1,05,548	1,17,178	1,24,932
Provisions	4,074	8,396	8,396	8,396	8,396
Debt funds	4,80,997	4,20,186	4,14,156	4,31,424	4,32,275
Other liabilities	67,226	1,25,734	1,28,524	1,33,107	1,38,866
Equity capital	2,705	3,196	3,196	3,196	3,196
Reserves & surplus	1,92,955	2,20,027	2,19,250	2,39,148	2,71,069
Shareholders' fund	1,95,660	2,23,223	2,22,445	2,42,343	2,74,265
<b>Total liab. and equities</b>	<b>8,97,482</b>	<b>9,88,512</b>	<b>10,16,141</b>	<b>10,69,520</b>	<b>11,15,807</b>
Cash and cash eq.	28,267	66,122	23,449	26,101	27,869
Accounts receivables	44,259	50,010	72,237	80,406	85,852
Inventories	17,524	18,848	27,225	30,304	32,357
Other current assets	30,165	28,731	28,731	28,731	28,731
Investments	13,025	23,059	23,059	23,059	23,059
Net fixed assets	4,46,626	4,87,489	5,31,733	5,82,733	6,37,379
CWIP	37,865	0	0	0	0
Intangible assets	30,038	31,404	31,404	31,404	31,404
Deferred tax assets, net	4,162	1,840	1,840	1,840	1,840
Other assets	2,45,551	2,81,009	2,76,462	2,64,942	2,47,315
<b>Total assets</b>	<b>8,97,482</b>	<b>9,88,512</b>	<b>10,16,141</b>	<b>10,69,520</b>	<b>11,15,807</b>

### Cash Flows

Y/E 31 Mar (Rs mn)	FY20A	FY21A	FY22E	FY23E	FY24E
<b>Cash flow from operations</b>	<b>73,753</b>	<b>84,580</b>	<b>73,799</b>	<b>86,683</b>	<b>1,13,006</b>
Capital expenditures	(22,258)	(33,358)	(76,389)	(86,429)	(93,542)
Change in investments	0	12,652	0	0	0
Other investing cash flows	(3,766)	7,310	0	0	0
<b>Cash flow from investing</b>	<b>(26,024)</b>	<b>(13,396)</b>	<b>(76,389)</b>	<b>(86,429)</b>	<b>(93,542)</b>
Equities issued/Others	201	29,961	(15,000)	0	0
Debt raised/repaid	(1,070)	(63,252)	(6,030)	17,268	851
Interest expenses	(40,025)	(37,314)	(33,357)	(33,806)	(34,531)
Dividends paid	(5,992)	(5,263)	(4,953)	(7,841)	(11,096)
Other financing cash flows	42,677	77,420	59,339	24,379	44,775
<b>Cash flow from financing</b>	<b>(4,209)</b>	<b>1,552</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Chg in cash &amp; cash eq.</b>	<b>17,228</b>	<b>15,227</b>	<b>(42,673)</b>	<b>2,652</b>	<b>1,768</b>
<b>Closing cash &amp; cash eq.</b>	<b>28,267</b>	<b>66,122</b>	<b>23,449</b>	<b>26,101</b>	<b>27,869</b>

### Per Share

Y/E 31 Mar (Rs)	FY20A	FY21A	FY22E	FY23E	FY24E
Reported EPS	3.8	3.5	6.1	8.7	13.5
Adjusted EPS	3.8	3.5	5.1	8.7	13.5
Dividend per share	1.6	1.6	2.5	3.5	5.4
Book value per share	72.3	69.9	69.6	75.8	85.8

### Valuations Ratios

Y/E 31 Mar (x)	FY20A	FY21A	FY22E	FY23E	FY24E
EV/Sales	2.8	2.6	1.7	1.5	1.4
EV/EBITDA	10.5	11.2	10.7	8.1	6.5
Adjusted P/E	32.8	35.9	24.6	14.4	9.3
P/BV	1.7	1.8	1.8	1.6	1.5

### DuPont Analysis

Y/E 31 Mar (%)	FY20A	FY21A	FY22E	FY23E	FY24E
Tax burden (Net profit/PBT)	48.1	53.0	64.9	67.5	72.6
Interest burden (PBT/EBIT)	41.8	43.7	57.8	68.9	70.3
EBIT margin (EBIT/Revenue)	17.6	14.8	9.2	11.4	15.1
Asset turnover (Rev./Avg TA)	33.5	34.4	46.8	50.1	51.0
Leverage (Avg TA/Avg Equity)	4.6	4.5	4.5	4.5	4.2
Adjusted ROAE	5.4	5.3	7.3	11.9	16.7

### Ratio Analysis

Y/E 31 Mar	FY20A	FY21A	FY22E	FY23E	FY24E
<b>YoY growth (%)</b>					
Revenue	(2.5)	11.4	44.4	11.3	6.8
EBITDA	13.2	(2.8)	0.0	26.1	29.7
Adjusted EPS	82.3	(8.6)	45.9	71.0	55.1
<b>Profitability &amp; Return ratios (%)</b>					
EBITDA margin	26.6	23.2	16.1	18.2	22.1
EBIT margin	17.6	14.8	9.2	11.4	15.1
Adjusted profit margin	3.5	3.4	3.5	5.3	7.7
Adjusted ROAE	5.4	5.3	7.3	11.9	16.7
ROCE	8.7	7.4	6.4	8.6	11.5
<b>Working capital days (days)</b>					
Receivables	55	56	56	56	56
Inventory	22	21	21	21	21
Payables	64	80	80	80	80
<b>Ratios (x)</b>					
Gross asset turnover	0.5	0.5	0.7	0.7	0.6
Current ratio	0.4	0.5	0.4	0.5	0.5
Net interest coverage ratio	1.2	1.2	1.3	1.8	2.5
Adjusted debt/equity	2.5	1.9	1.9	1.8	1.6

Source: Company, BOBCAPS Research | Note: TA = Total Assets

## Financials – TPW

### Income Statement

Y/E 31 Mar (Rs mn)	FY20A	FY21A	FY22E	FY23E	FY24E
<b>Total revenue</b>	<b>1,36,406</b>	<b>1,21,727</b>	<b>1,35,763</b>	<b>1,39,599</b>	<b>1,43,259</b>
EBITDA	35,561	34,652	38,354	42,485	47,548
Depreciation	(13,043)	(12,796)	(15,991)	(18,500)	(19,898)
EBIT	22,518	21,857	22,363	23,985	27,650
Net interest inc./(exp.)	(8,726)	(7,324)	(4,965)	(5,247)	(6,098)
Other inc./(exp.)	956	985	1,000	1,000	1,000
Exceptional items	(10,000)	0	0	0	0
EBT	4,748	15,518	18,398	19,738	22,552
Income taxes	7,040	(2,559)	(3,214)	(3,449)	(3,940)
Extraordinary items	0	0	0	0	0
Min. int./Inc. from assoc.	(47)	(49)	(49)	(49)	(49)
<b>Reported net profit</b>	<b>11,742</b>	<b>12,909</b>	<b>15,134</b>	<b>16,240</b>	<b>18,562</b>
Adjustments	10,000	0	0	0	0
<b>Adjusted net profit</b>	<b>21,742</b>	<b>12,909</b>	<b>15,134</b>	<b>16,240</b>	<b>18,562</b>

### Balance Sheet

Y/E 31 Mar (Rs mn)	FY20A	FY21A	FY22E	FY23E	FY24E
Accounts payables	10,379	9,748	11,159	11,474	11,775
Other current liabilities	13,078	13,101	14,512	14,827	15,128
Provisions	1,030	1,030	1,030	1,030	1,030
Debt funds	77,996	66,722	62,076	73,440	82,161
Other liabilities	19,668	18,725	18,774	18,823	18,873
Equity capital	4,806	4,806	4,806	4,806	4,806
Reserves & surplus	86,729	97,036	1,06,799	1,18,426	1,32,039
Shareholders' fund	91,535	1,01,842	1,11,605	1,23,233	1,36,845
<b>Total liab. and equities</b>	<b>2,36,230</b>	<b>2,35,387</b>	<b>2,41,965</b>	<b>2,65,320</b>	<b>2,88,004</b>
Cash and cash eq.	8,879	2,024	5,030	5,012	4,415
Accounts receivables	12,798	14,203	13,018	11,474	11,775
Inventories	5,982	4,504	5,207	5,354	5,495
Other current assets	20,578	25,714	25,714	25,714	25,714
Investments	1,160	1,242	1,242	1,242	1,242
Net fixed assets	1,75,543	1,73,076	1,77,210	2,02,061	2,24,983
CWIP	5,674	0	0	0	0
Intangible assets	150	184	184	184	184
Deferred tax assets, net	199	245	245	245	245
Other assets	5,269	14,196	14,114	14,033	13,952
<b>Total assets</b>	<b>2,36,230</b>	<b>2,35,387</b>	<b>2,41,965</b>	<b>2,65,320</b>	<b>2,88,004</b>

### Cash Flows

Y/E 31 Mar (Rs mn)	FY20A	FY21A	FY22E	FY23E	FY24E
<b>Cash flow from operations</b>	<b>36,354</b>	<b>29,876</b>	<b>37,031</b>	<b>40,749</b>	<b>43,468</b>
Capital expenditures	(13,337)	(12,960)	(20,043)	(43,270)	(42,739)
Change in investments	0	0	0	0	0
Other investing cash flows	1,100	2,856	0	0	0
<b>Cash flow from investing</b>	<b>(12,237)</b>	<b>(10,103)</b>	<b>(20,043)</b>	<b>(43,270)</b>	<b>(42,739)</b>
Equities issued/Others	0	0	0	0	0
Debt raised/repaid	(8,535)	(10,927)	(4,646)	11,364	8,722
Interest expenses	(8,643)	(8,087)	(4,474)	(4,759)	(5,613)
Dividends paid	(9,683)	(2,686)	(5,371)	(4,613)	(4,950)
Other financing cash flows	28,662	22,789	14,491	(1,992)	1,841
<b>Cash flow from financing</b>	<b>1,800</b>	<b>1,089</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Chg in cash &amp; cash eq.</b>	<b>(249)</b>	<b>161</b>	<b>3,005</b>	<b>(17)</b>	<b>(597)</b>
<b>Closing cash &amp; cash eq.</b>	<b>8,879</b>	<b>2,024</b>	<b>5,030</b>	<b>5,012</b>	<b>4,415</b>

### Per Share

Y/E 31 Mar (Rs)	FY20A	FY21A	FY22E	FY23E	FY24E
Reported EPS	24.4	26.9	31.5	33.8	38.6
Adjusted EPS	45.2	26.9	31.5	33.8	38.6
Dividend per share	11.6	11.0	9.4	10.1	11.6
Book value per share	190.5	211.9	232.2	256.4	284.7

### Valuations Ratios

Y/E 31 Mar (x)	FY20A	FY21A	FY22E	FY23E	FY24E
EV/Sales	2.2	2.4	2.1	2.0	2.0
EV/EBITDA	8.3	8.4	7.4	6.6	5.9
Adjusted P/E	10.0	16.9	14.4	13.4	11.7
P/BV	2.4	2.1	2.0	1.8	1.6

### DuPont Analysis

Y/E 31 Mar (%)	FY20A	FY21A	FY22E	FY23E	FY24E
Tax burden (Net profit/PBT)	147.4	83.2	82.3	82.3	82.3
Interest burden (PBT/EBIT)	65.5	71.0	82.3	82.3	81.6
EBIT margin (EBIT/Revenue)	16.5	18.0	16.5	17.2	19.3
Asset turnover (Rev./Avg TA)	56.6	51.6	56.9	55.0	51.8
Leverage (Avg TA/Avg Equity)	2.7	2.4	2.2	2.2	2.1
Adjusted ROAE	24.0	13.4	14.2	13.8	14.3

### Ratio Analysis

Y/E 31 Mar	FY20A	FY21A	FY22E	FY23E	FY24E
<b>YoY growth (%)</b>					
Revenue	3.7	(10.8)	11.5	2.8	2.6
EBITDA	11.1	(2.6)	10.7	10.8	11.9
Adjusted EPS	141.9	(40.6)	17.2	7.3	14.3
<b>Profitability &amp; Return ratios (%)</b>					
EBITDA margin	26.1	28.5	28.3	30.4	33.2
EBIT margin	16.5	18.0	16.5	17.2	19.3
Adjusted profit margin	15.9	10.6	11.1	11.6	13.0
Adjusted ROAE	24.0	13.4	14.2	13.8	14.3
ROCE	11.5	11.6	11.8	11.8	12.2
<b>Working capital days (days)</b>					
Receivables	34	43	35	30	30
Inventory	16	14	14	14	14
Payables	28	29	30	30	30
<b>Ratios (x)</b>					
Gross asset turnover	0.6	0.5	0.5	0.5	0.4
Current ratio	1.0	1.0	1.0	1.0	0.9
Net interest coverage ratio	2.6	3.0	4.5	4.6	4.5
Adjusted debt/equity	0.9	0.7	0.6	0.6	0.6

Source: Company, BOBCAPS Research | Note: TA = Total Assets

## Financials – CESC

### Income Statement

Y/E 31 Mar (Rs mn)	FY20A	FY21A	FY22E	FY23E	FY24E
<b>Total revenue</b>	<b>1,10,146</b>	<b>1,16,390</b>	<b>1,33,361</b>	<b>1,36,837</b>	<b>1,39,804</b>
EBITDA	35,355	36,100	36,567	37,334	36,381
Depreciation	(7,814)	(8,670)	(9,197)	(9,402)	(9,615)
EBIT	27,541	27,430	27,370	27,932	26,766
Net interest inc./(exp.)	(13,194)	(11,612)	(10,901)	(10,443)	(9,868)
Other inc./(exp.)	1,645	1,702	1,626	1,626	1,626
Exceptional items	0	0	0	0	0
EBT	16,686	17,520	18,095	19,114	18,524
Income taxes	(3,627)	(3,890)	(3,921)	(4,055)	(4,122)
Extraordinary items	0	0	0	0	0
Min. int./Inc. from assoc.	655	(320)	(419)	(441)	(465)
<b>Reported net profit</b>	<b>13,021</b>	<b>13,310</b>	<b>13,755</b>	<b>14,618</b>	<b>13,937</b>
Adjustments	0	0	0	0	0
<b>Adjusted net profit</b>	<b>13,021</b>	<b>13,310</b>	<b>13,755</b>	<b>14,618</b>	<b>13,937</b>

### Balance Sheet

Y/E 31 Mar (Rs mn)	FY20A	FY21A	FY22E	FY23E	FY24E
Accounts payables	6,568	9,390	7,307	7,498	7,660
Other current liabilities	6,568	10,310	8,227	8,418	8,580
Provisions	4,247	4,760	4,760	4,760	4,760
Debt funds	1,21,816	1,24,650	1,20,671	1,11,246	1,07,901
Other liabilities	84,963	94,280	94,699	95,140	95,605
Equity capital	1,332	1,332	1,332	1,332	1,332
Reserves & surplus	94,942	97,398	1,04,572	1,12,356	1,19,416
Shareholders' fund	96,274	98,730	1,05,904	1,13,688	1,20,748
<b>Total liab. and equities</b>	<b>3,43,721</b>	<b>3,58,620</b>	<b>3,60,151</b>	<b>3,59,142</b>	<b>3,63,485</b>
Cash and cash eq.	12,129	20,270	13,336	13,684	13,980
Accounts receivables	18,818	23,150	27,403	22,494	22,981
Inventories	150	5,970	6,840	7,019	7,171
Other current assets	18,934	6,580	6,580	6,580	6,580
Investments	1,631	1,400	1,400	1,400	1,400
Net fixed assets	2,33,767	2,39,710	2,43,173	2,46,669	2,50,197
CWIP	0	0	0	0	0
Intangible assets	1,472	1,630	1,630	1,630	1,630
Deferred tax assets, net	1,472	0	0	0	0
Other assets	55,347	59,910	59,788	59,667	59,545
<b>Total assets</b>	<b>3,43,721</b>	<b>3,58,620</b>	<b>3,60,151</b>	<b>3,59,142</b>	<b>3,63,485</b>

### Cash Flows

Y/E 31 Mar (Rs mn)	FY20A	FY21A	FY22E	FY23E	FY24E
<b>Cash flow from operations</b>	<b>30,033</b>	<b>28,180</b>	<b>25,441</b>	<b>38,200</b>	<b>31,782</b>
Capital expenditures	(7,464)	(6,830)	(12,539)	(12,776)	(13,021)
Change in investments	0	(4,520)	0	0	0
Other investing cash flows	5,393	(4,000)	0	0	0
<b>Cash flow from investing</b>	<b>(2,072)</b>	<b>(15,350)</b>	<b>(12,539)</b>	<b>(12,776)</b>	<b>(13,021)</b>
Equities issued/Others	0	0	0	0	0
Debt raised/repaid	(4,892)	210	(3,979)	(9,425)	(3,345)
Interest expenses	(13,306)	(11,780)	(10,073)	(9,484)	(8,921)
Dividends paid	(3,188)	(5,940)	(6,581)	(6,834)	(6,877)
Other financing cash flows	21,471	17,510	20,633	25,742	19,143
<b>Cash flow from financing</b>	<b>86</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Chg in cash &amp; cash eq.</b>	<b>7,103</b>	<b>(4,230)</b>	<b>(6,934)</b>	<b>348</b>	<b>297</b>
<b>Closing cash &amp; cash eq.</b>	<b>12,129</b>	<b>20,270</b>	<b>13,336</b>	<b>13,684</b>	<b>13,980</b>

### Per Share

Y/E 31 Mar (Rs)	FY20A	FY21A	FY22E	FY23E	FY24E
Reported EPS	98.2	100.4	103.8	110.3	105.1
Adjusted EPS	98.2	100.4	103.8	110.3	105.1
Dividend per share	20.0	45.0	49.9	51.8	52.1
Book value per share	726.3	744.8	798.9	857.7	910.9

### Valuations Ratios

Y/E 31 Mar (x)	FY20A	FY21A	FY22E	FY23E	FY24E
EV/Sales	2.0	1.8	1.5	1.5	1.4
EV/EBITDA	6.2	5.9	5.6	5.4	5.5
Adjusted P/E	7.4	7.3	7.1	6.6	7.0
P/BV	1.0	1.0	0.9	0.9	0.8

### DuPont Analysis

Y/E 31 Mar (%)	FY20A	FY21A	FY22E	FY23E	FY24E
Tax burden (Net profit/PBT)	78.0	76.0	76.0	76.5	75.2
Interest burden (PBT/EBIT)	60.6	63.9	66.1	68.4	69.2
EBIT margin (EBIT/Revenue)	25.0	23.6	20.5	20.4	19.1
Asset turnover (Rev./Avg TA)	32.5	33.1	37.1	38.0	38.7
Leverage (Avg TA/Avg Equity)	3.6	3.6	3.5	3.3	3.1
Adjusted ROAE	14.0	13.7	13.4	13.3	11.9

### Ratio Analysis

Y/E 31 Mar	FY20A	FY21A	FY22E	FY23E	FY24E
<b>YoY growth (%)</b>					
Revenue	3.3	5.7	14.6	2.6	2.2
EBITDA	(4.7)	2.1	1.3	2.1	(2.6)
Adjusted EPS	10.0	2.2	3.3	6.3	(4.7)
<b>Profitability &amp; Return ratios (%)</b>					
EBITDA margin	32.1	31.0	27.4	27.3	26.0
EBIT margin	25.0	23.6	20.5	20.4	19.1
Adjusted profit margin	11.8	11.4	10.3	10.7	10.0
Adjusted ROAE	14.0	13.7	13.4	13.3	11.9
ROCE	10.0	9.4	9.0	9.1	8.7
<b>Working capital days (days)</b>					
Receivables	62	73	75	60	60
Inventory	0	19	19	19	19
Payables	22	29	20	20	20
<b>Ratios (x)</b>					
Gross asset turnover		17.0	10.2	5.3	3.6
Current ratio	0.8	1.0	1.0	0.9	1.0
Net interest coverage ratio	2.1	2.4	2.5	2.7	2.7
Adjusted debt/equity	1.3	1.3	1.1	1.0	0.9

Source: Company, BOBCAPS Research | Note: TA = Total Assets

## Disclaimer

### Recommendation scale: Recommendations and Absolute returns (%) over 12 months

**BUY** – Expected return >+15%

**HOLD** – Expected return from -6% to +15%

**SELL** – Expected return <-6%

**Note:** Recommendation structure changed with effect from 21 June 2021

Our recommendation scale does not factor in short-term stock price volatility related to market fluctuations. Thus, our recommendations may not always be strictly in line with the recommendation scale as shown above.

### Rating distribution

As of 31 July 2021, out of 98 rated stocks in the BOB Capital Markets Limited (BOBCAPS) coverage universe, 41 have BUY ratings, 22 have HOLD ratings, 11 are rated ADD\*, 2 are rated REDUCE\* and 22 are rated SELL. None of these companies have been investment banking clients in the last 12 months. (\*Our ADD and REDUCE ratings are in the process of being migrated to the new recommendation structure.)

### Analyst certification

The research analyst(s) authoring this report hereby certifies that (1) all of the views expressed in this research report accurately reflect his/her personal views about the subject company or companies and its or their securities, and (2) no part of his/her compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) in this report. Analysts are not registered as research analysts by FINRA and are not associated persons of BOBCAPS.

### General disclaimers

BOBCAPS is engaged in the business of Institutional Stock Broking and Investment Banking. BOBCAPS is a member of the National Stock Exchange of India Limited and BSE Limited and is also a SEBI-registered Category I Merchant Banker. BOBCAPS is a wholly owned subsidiary of Bank of Baroda which has its various subsidiaries engaged in the businesses of stock broking, lending, asset management, life insurance, health insurance and wealth management, among others.

BOBCAPS's activities have neither been suspended nor has it defaulted with any stock exchange authority with whom it has been registered in the last five years. BOBCAPS has not been debarred from doing business by any stock exchange or SEBI or any other authority. No disciplinary action has been taken by any regulatory authority against BOBCAPS affecting its equity research analysis activities.

BOBCAPS has obtained registration as a Research Entity under SEBI (Research Analysts) Regulations, 2014, having registration No.: INH000000040 valid till 03 February 2025. BOBCAPS is also a SEBI-registered intermediary for the broking business having SEBI Single Registration Certificate No.: INZ000159332 dated 20 November 2017. BOBCAPS CIN Number: U65999MH1996GOI098009.

BOBCAPS prohibits its analysts, persons reporting to analysts, and members of their households from maintaining a financial interest in the securities or derivatives of any companies that the analysts cover. Additionally, BOBCAPS prohibits its analysts and persons reporting to analysts from serving as an officer, director, or advisory board member of any companies that the analysts cover.

Our salespeople, traders, and other professionals may provide oral or written market commentary or trading strategies to our clients that reflect opinions contrary to the opinions expressed herein, and our proprietary trading and investing businesses may make investment decisions that are inconsistent with the recommendations expressed herein. In reviewing these materials, you should be aware that any or all of the foregoing, among other things, may give rise to real or potential conflicts of interest. Additionally, other important information regarding our relationships with the company or companies that are the subject of this material is provided herein.

This material should not be construed as an offer to sell or the solicitation of an offer to buy any security in any jurisdiction where such an offer or solicitation would be illegal. We are not soliciting any action based on this material. It is for the general information of BOBCAPS's clients. It does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. Before acting on any advice or recommendation in this material, clients should consider whether it is suitable for their particular circumstances and, if necessary, seek professional advice.

The price and value of the investments referred to in this material and the income from them may go down as well as up, and investors may realize losses on any investments. Past performance is not a guide for future performance, future returns are not guaranteed and a loss of original capital may occur. BOBCAPS does not provide tax advice to its clients, and all investors are strongly advised to consult with their tax advisers regarding any potential investment in certain transactions — including those involving futures, options, and other derivatives as well as non-investment-grade securities — that give rise to substantial risk and are not suitable for all investors. The material is based on information that we consider reliable, but we do not represent that it is accurate or complete, and it should not be relied on as such. Opinions expressed are our current opinions as of the date appearing on this material only. We endeavour to update on a reasonable basis the information discussed in this material, but regulatory, compliance, or other reasons may prevent us from doing so.

We and our affiliates, officers, directors, and employees, including persons involved in the preparation or issuance of this material, may from time to time have "long" or "short" positions in, act as principal in, and buy or sell the securities or derivatives thereof of companies mentioned herein and may from time to time add to or dispose of any such securities (or investment). We and our affiliates may act as market makers or assume an underwriting commitment in the securities of companies discussed in this document (or in related investments), may sell them to or buy them from customers on a principal basis, and may also perform or seek to perform investment banking or advisory services for or relating to these companies and may also be represented in the supervisory board or any other committee of these companies.

For the purpose of calculating whether BOBCAPS and its affiliates hold, beneficially own, or control, including the right to vote for directors, one per cent or more of the equity shares of the subject company, the holdings of the issuer of the research report is also included.

BOBCAPS and its non-US affiliates may, to the extent permissible under applicable laws, have acted on or used this research to the extent that it relates to non-US issuers, prior to or immediately following its publication. Foreign currency denominated securities are subject to fluctuations in exchange rates that could have an adverse effect on the value or price of or income derived from the investment. In addition, investors in securities such as ADRs, the value of which are influenced by foreign currencies, effectively assume currency risk. In addition, options involve risks and are not suitable for all investors. Please ensure that you have read and understood the Risk disclosure document before entering into any derivative transactions.

In the US, this material is only for Qualified Institutional Buyers as defined under rule 144(a) of the Securities Act, 1933. No part of this document may be distributed in Canada or used by private customers in the United Kingdom.

No part of this material may be (1) copied, photocopied, or duplicated in any form by any means or (2) redistributed without BOBCAPS's prior written consent.

#### **Company-specific disclosures under SEBI (Research Analysts) Regulations, 2014**

The research analyst(s) or his/her relatives do not have any material conflict of interest at the time of publication of this research report.

BOBCAPS or its research analyst(s) or his/her relatives do not have any financial interest in the subject company. BOBCAPS or its research analyst(s) or his/her relatives do not have actual/beneficial ownership of one per cent or more securities in the subject company at the end of the month immediately preceding the date of publication of this report.

The research analyst(s) has not received any compensation from the subject company in the past 12 months. Compensation of the research analyst(s) is not based on any specific merchant banking, investment banking or brokerage service transactions.

BOBCAPS or its research analyst(s) is not engaged in any market making activities for the subject company.

The research analyst(s) has not served as an officer, director or employee of the subject company.

BOBCAPS or its associates may have material conflict of interest at the time of publication of this research report.

BOBCAPS's associates may have financial interest in the subject company. BOBCAPS's associates may hold actual / beneficial ownership of one per cent or more securities in the subject company at the end of the month immediately preceding the date of publication of this report.

BOBCAPS or its associates may have managed or co-managed a public offering of securities for the subject company or may have been mandated by the subject company for any other assignment in the past 12 months.

BOBCAPS may have received compensation from the subject company in the past 12 months. BOBCAPS may from time to time solicit or perform investment banking services for the subject company. BOBCAPS or its associates may have received compensation from the subject company in the past 12 months for services in respect of managing or co-managing public offerings, corporate finance, investment banking or merchant banking, brokerage services or other advisory services in a merger or specific transaction. BOBCAPS or its associates may have received compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company in the past 12 months.