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# Agenda



## Sector Overview

### Tata Power

#### Business Overview

#### CGPL: Coal to Power – Integrated view

#### Renewables Portfolio

#### International Portfolio

#### Key recent developments

#### Balance Sheet Strengthening – A key focus

### Understanding IndAS

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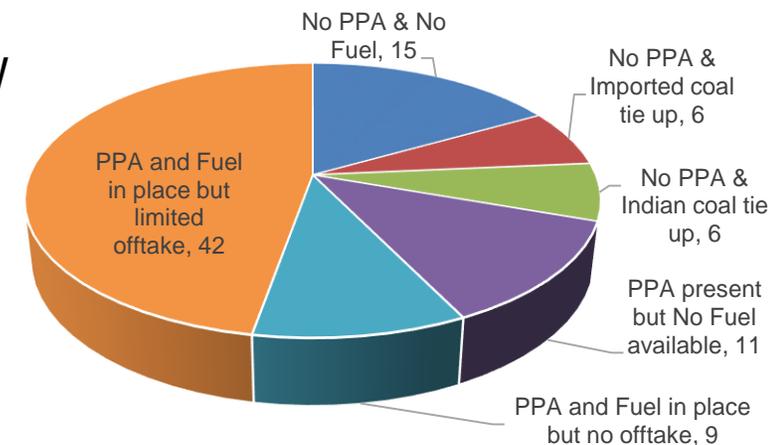
#### Balance Sheet Strengthening – A key focus

### Understanding IndAS

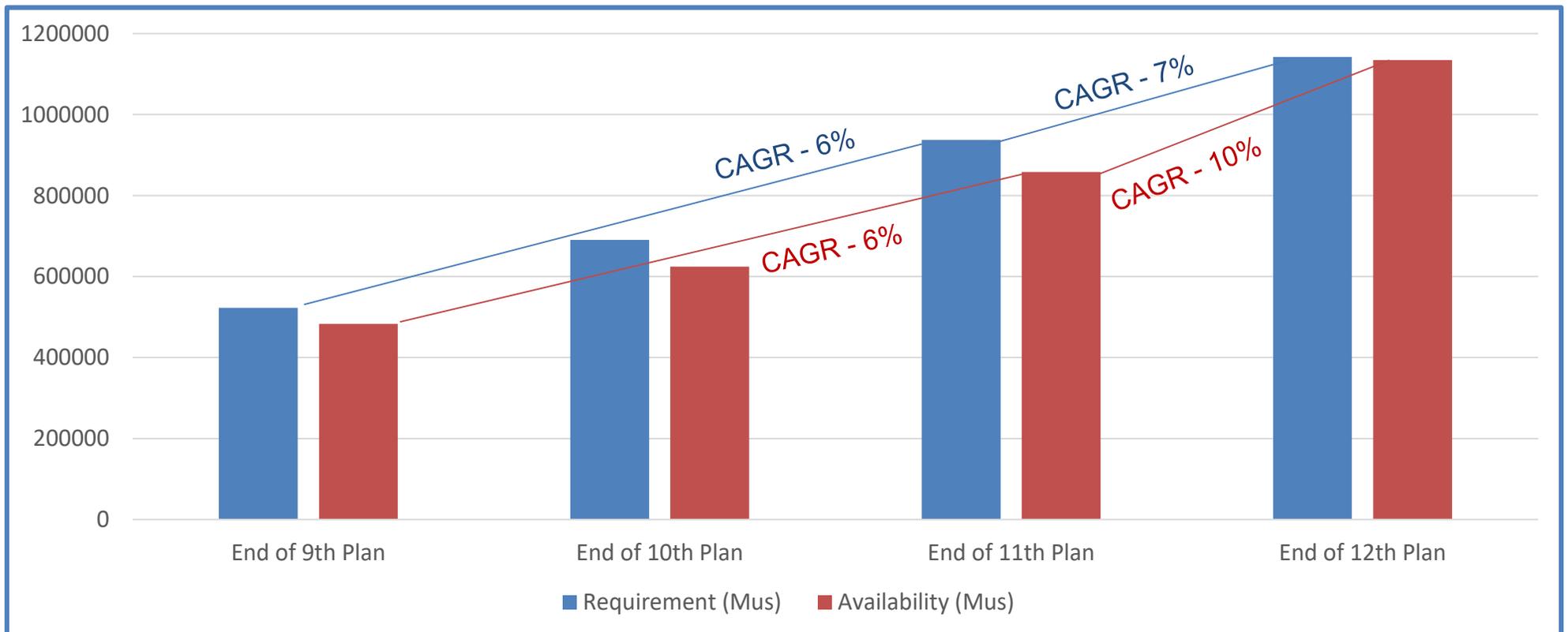
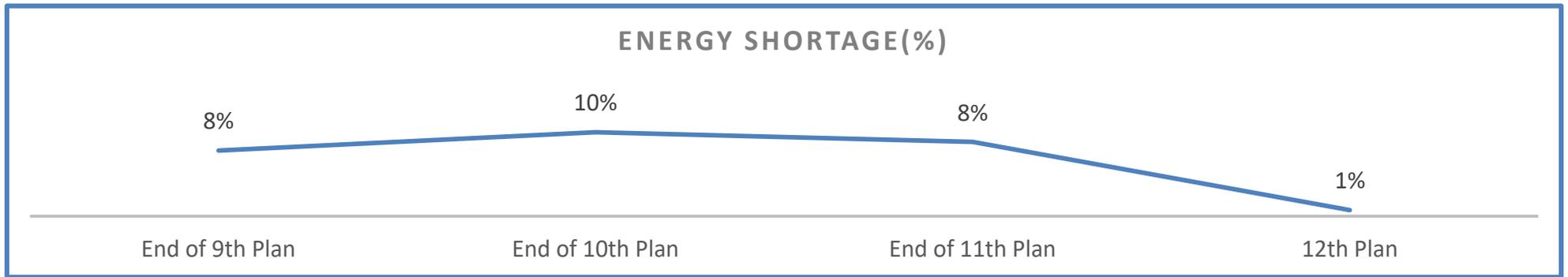
# The Indian Power Sector is under lot of stress

- India added over 100 GW of generation capacity post 2012, however, demand growth (*as reported by discoms*) did not keep pace with such capacity addition
- New capacities have reduced power deficit, but lower energy demand of discoms is hitting PLFs (PLF reduced to <60% for thermal plants); less than 5 GW PPA bids announced and signed since 2013
- Nearly 90 GW capacity is stressed/stranded
  - PPA and Fuel in place but limited offtake – ~42 GW
  - No PPA & No Fuel – ~15 GW
  - PPA present but no fuel available – ~11 GW
  - PPA and Fuel in place but no offtake – ~9 GW
  - No PPA and imported coal tie-up – ~6 GW
  - No PPA and domestic coal tie-up – ~6 GW
- While financial restructuring has happened under Uday scheme (out of the total debt of ₹ 3.8 lakh cr attributable to the 27 UDAY states and union territories, 61% has been already transferred to state governments and/or refinanced in the form of state government guaranteed bonds), improvement in operational parameters still has a long way to go

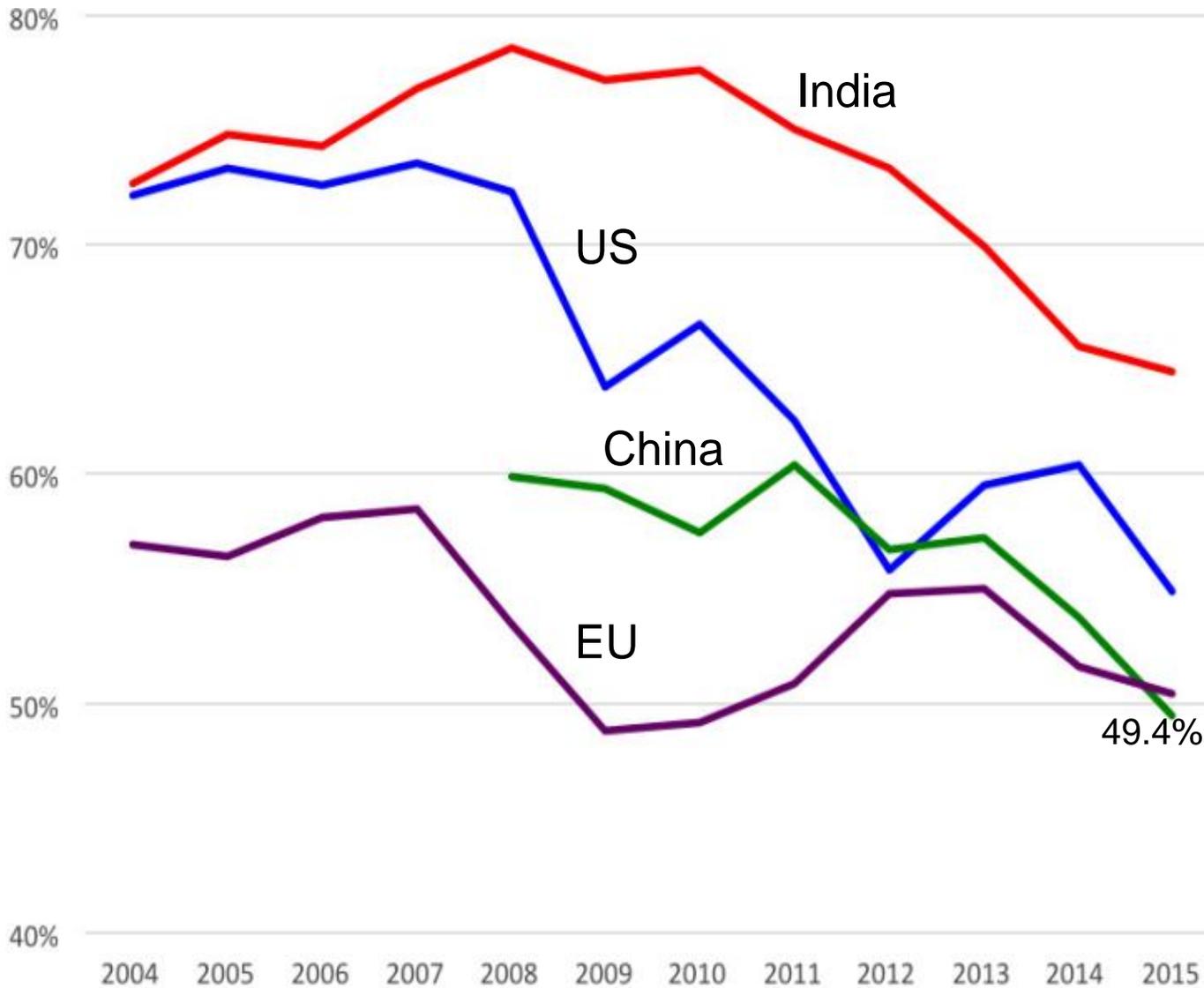
Stressed/Stranded Capacity (GW)



# The real reason behind reduction in energy deficit is slow demand growth



# Thermal Power Plant PLFs shows a declining trend worldwide



- Due to falling use of existing coal plants combined with aggressive building of new ones, plant utilization rates have fallen to 49.4% (2015) in China, the lowest level since 1969
- Thermal PLFs in India were ~60% in 2017, and according to CEA's National Electricity Plan (NEP) it could be in the range of 48% - 54% depending on renewable capacity addition

# Drivers for slower than expected growth in electricity demand



Elasticity for spending a larger amount on electricity does not exist anymore with today's consumer



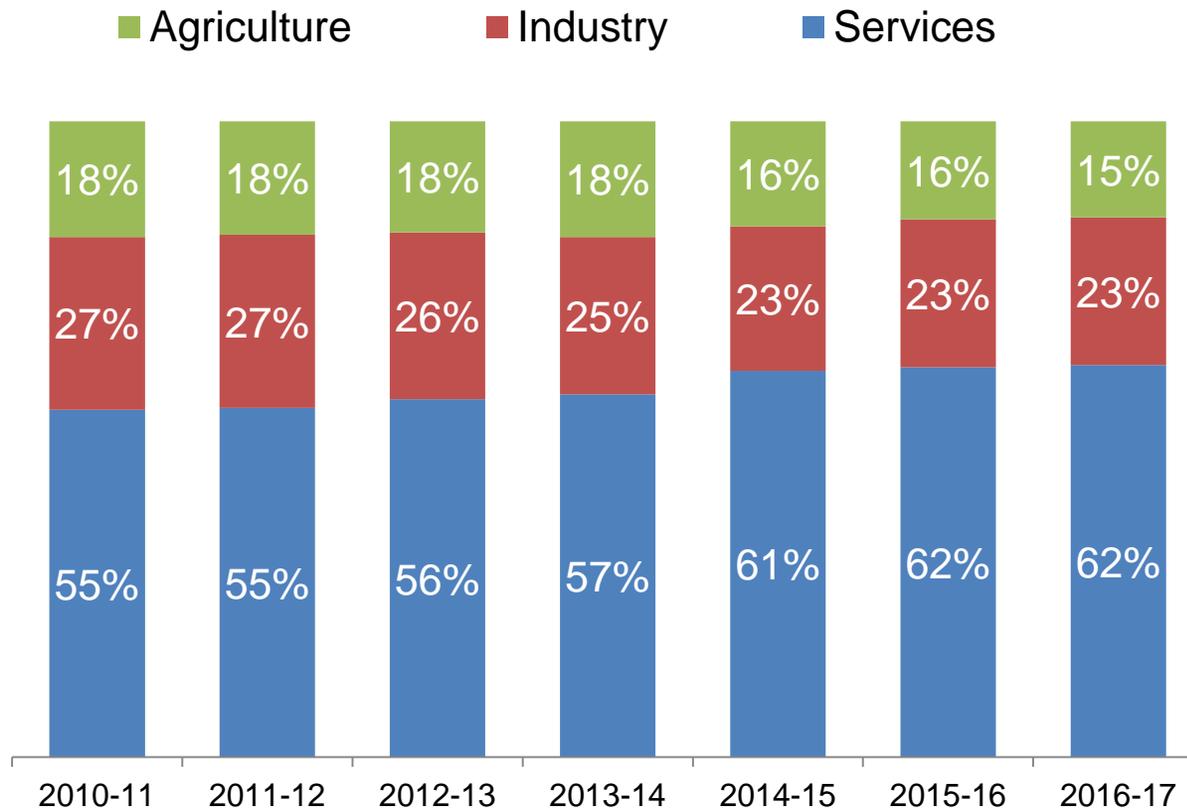
No impetus to fresh demand, especially industrial demand



Poor financial health of discoms constraining demand

# Industry in India has been experiencing a slow growth over the last 2-3 years

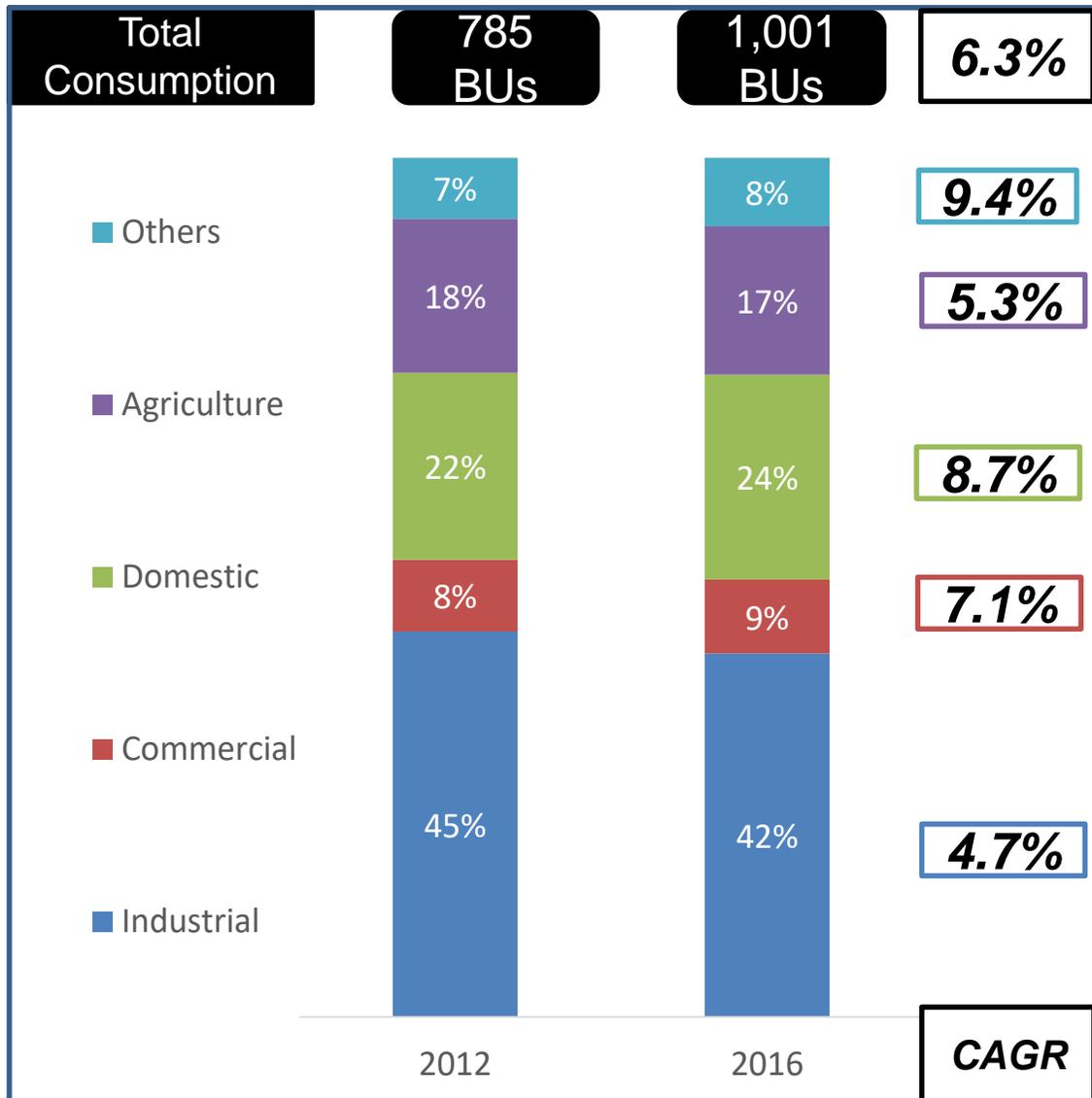
## India GDP (2011-17)



- Amongst the three sectors, industry has the highest elasticity with power demand
- Share of industry is reducing (from 27% to 23%) in the overall GDP which implies lower growth of power in the industrial sector
- Make in India and economic development has to pick up significantly

GDP (₹ lakh cr)	72	87	92	98	105	114	122

# Industrial, Domestic and Commercial sectors comprise ~75% of the electricity demand



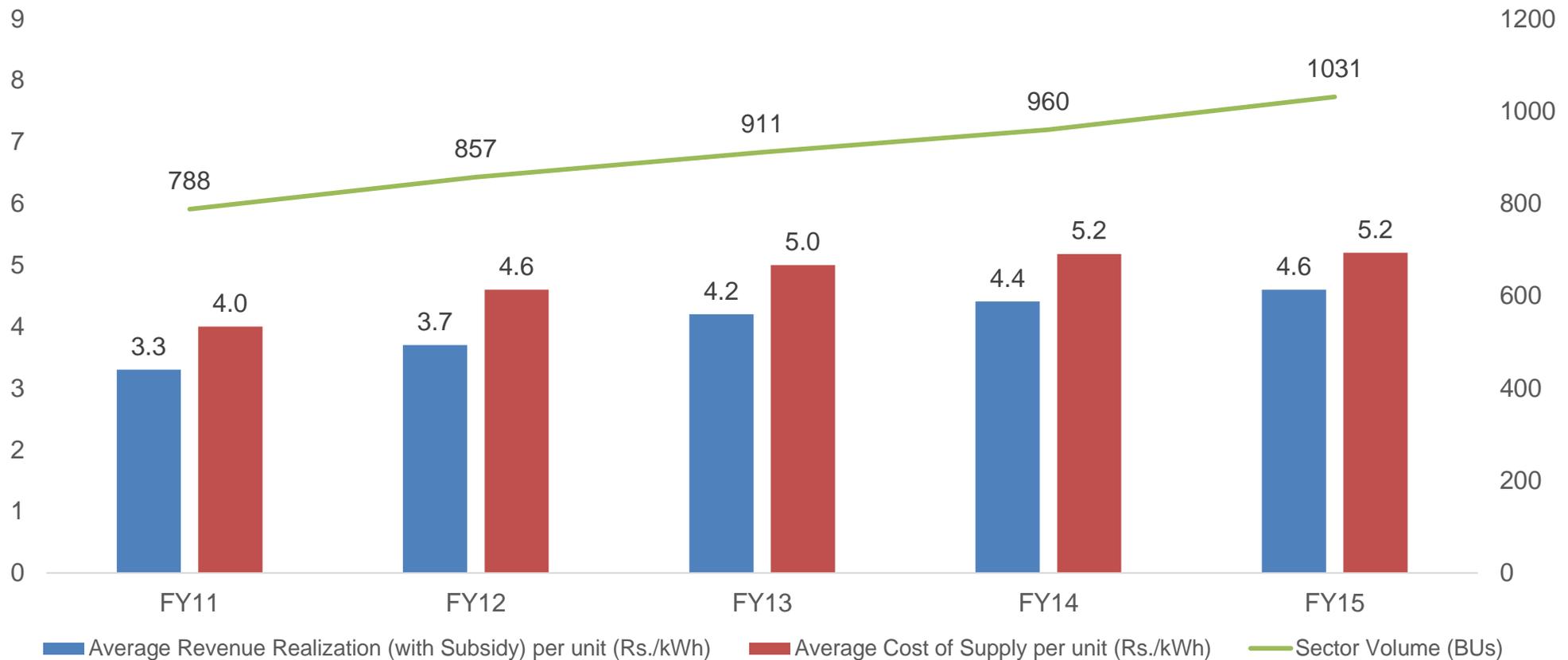
## Insights

- Growth in electricity demand for **Industrial Segment** has reduced significantly (8% p.a. from 2002-12 vs. 4.7% in 12-16)
- **Domestic Consumption** has been increasing due to increasing urbanization, higher usage of electronic goods driven by higher disposable incomes
- **Commercial Segment** is experiencing growth in line with increase in economic activity in the services sector

# India has a long way to go in line with electricity economies of developed countries



Particulars	Source	U.S.A	Source	India
<b>Electricity Market Size – 2015-16 (USD billion)</b>	EIA	391	PFC	100



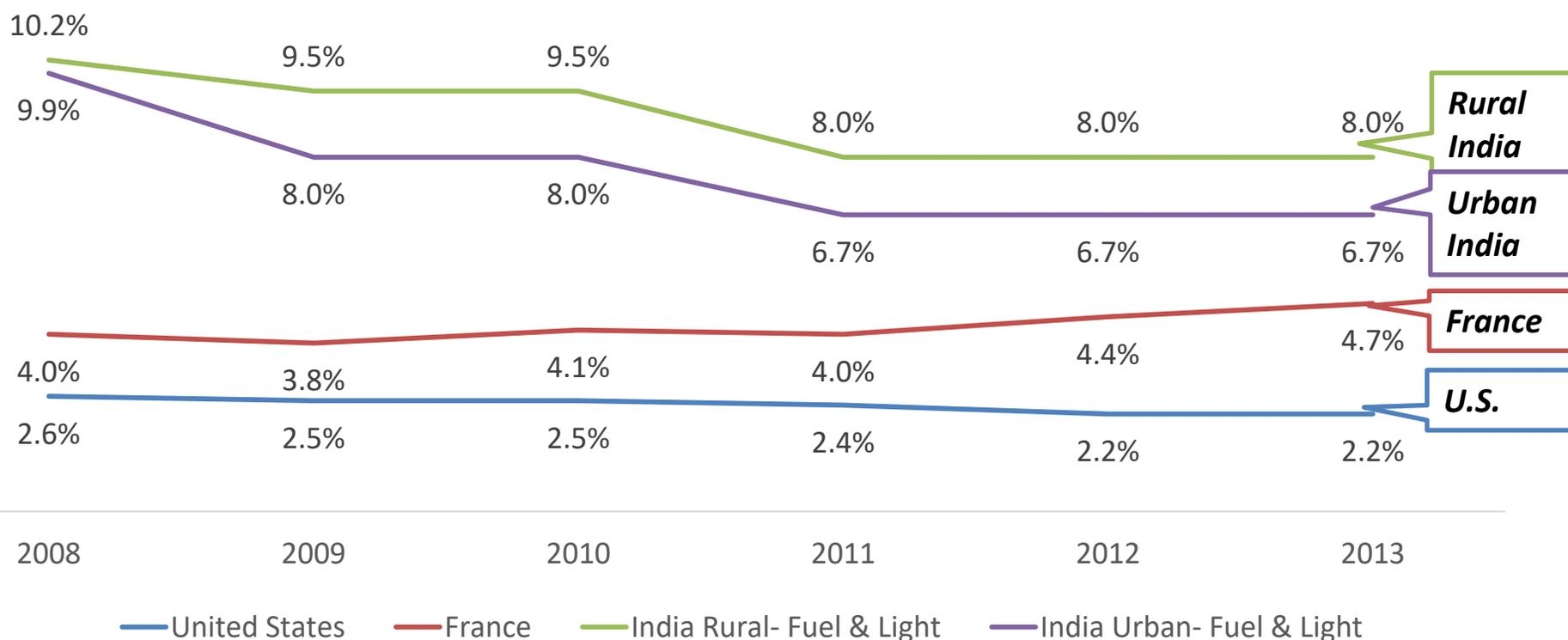
Source: CEA, PFC

# Consumers in India spend higher portion of their income on Electricity & Fuel compared to developed economies



Indian Urban & Rural Household already spend significantly higher portion of their income on Electricity (Light) & Fuel than their counterpart in developed economies

Share of expenditure on electricity, gas, fuels in total household expenditure

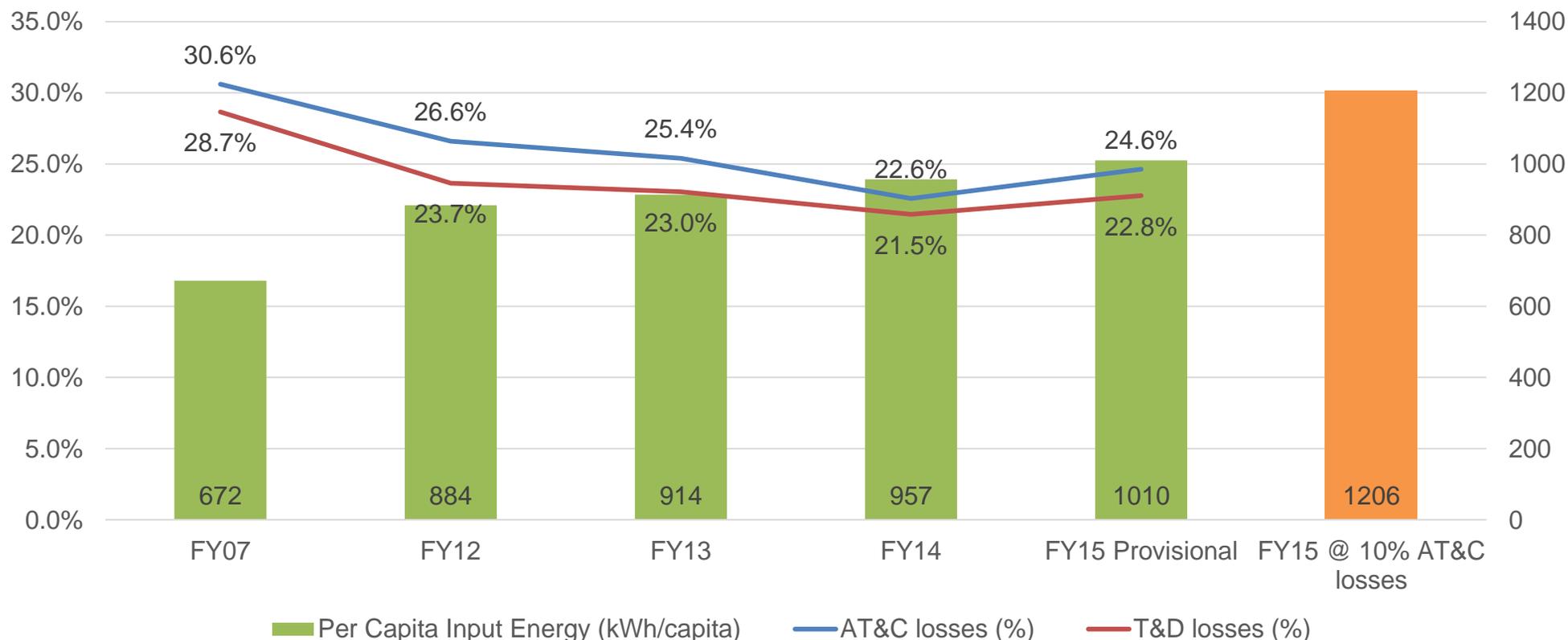


Latest study on household consumer expenditure in India done by NSSO (68<sup>th</sup> round) has data available till 2013.

# Reduction of distribution losses is a pre-requisite for increase in growth of power demand



Impact of reduction in AT&C losses on Consumer's Elasticity & Consumption



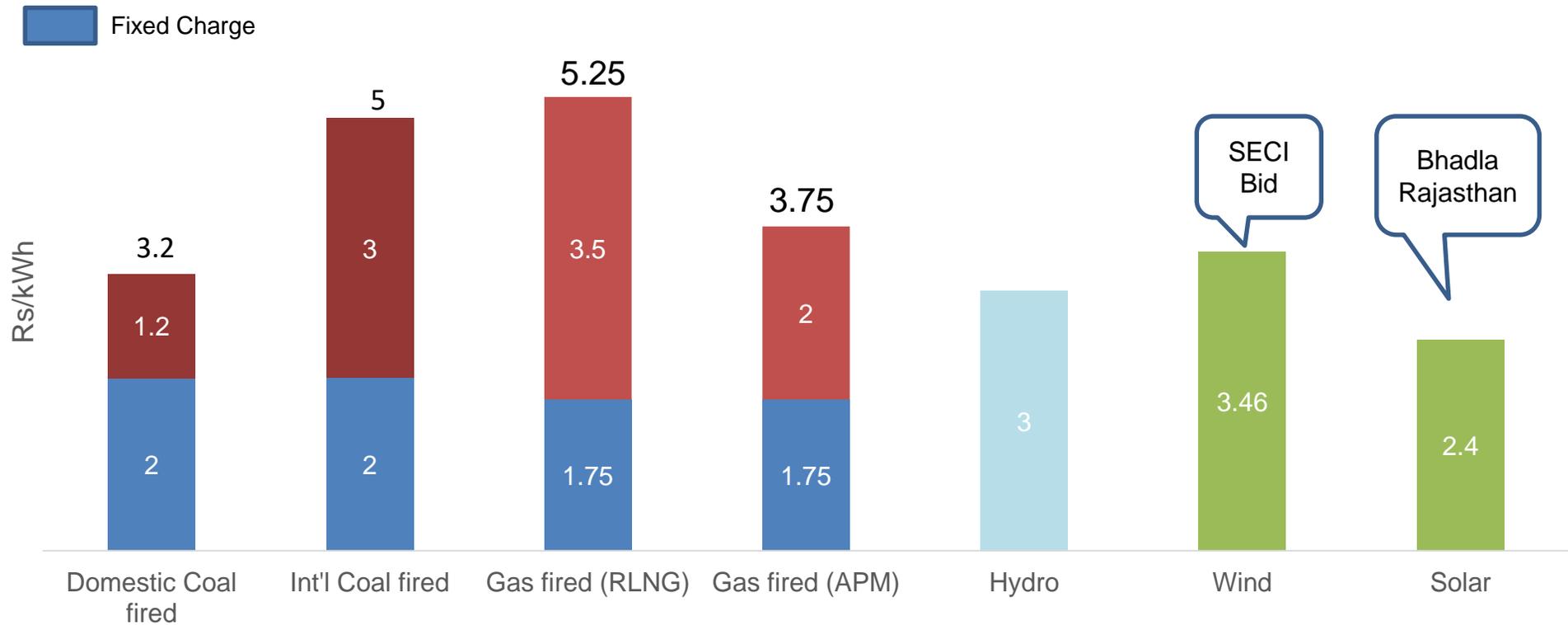
***If AT&C Losses are reduced from current levels of ~23% to 10%, ~200 units of additional electricity will be available for each individual at same cost***



Agility                      Care  
   Integrity  
Excellence                      Collaboration  
Trust                                      Respect

## Renewable – Changing Land Scape

# Renewable power becoming increasingly cost competitive



- Solar power tariffs across the world declined to \$24/MWh (₹ 1.63/kWh) compared with the lowest solar power tariff of nearly ₹ 2.44/kWh in India.
- Given the wide difference, it is believed that there is ample room for domestic solar power tariffs to fall and, more so, as prices of solar panels fallen steeply
- Moreover, battery storage advancements worldwide could alter solar power economics and make solar a more price and consumer-friendly energy source in next few years.



## Storage Solutions – Pumped Storage Hydro capacity or Battery Storage

- Utility scale solar solutions could be resolve variability issues of renewables
- Currently, India has around 5000 MW of pumped storage hydro power plants, but it is largely non-operational due to unviable cost structures, the same need to encouraged and utilized as they can also help in effectively flattening the peaks and troughs of the demand curve
- Li-ion based battery technology is witnessing rapid development for utility scale solutions



## Green Grid – A dedicated corridor for RE evacuation

- India has a high concentration of Solar Power generation in the Southern states of TN,KA & AP
- The government is planning upgrades of transmission infrastructure through its green energy corridor program, but such projects take much longer than the 12-18 months it takes to commission a solar project
- Transmission remains the biggest bottleneck for grid stability and infrastructure addition must keep pace with capacity addition in order to achieve MNRE's vision for 2022



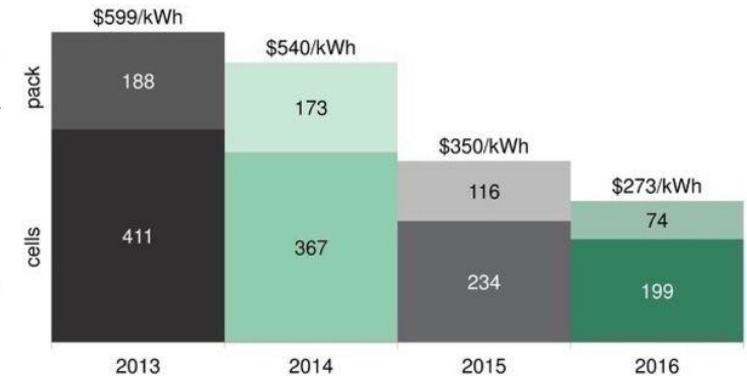
## Flexible Generation

- Base-load coal need to be flexible to operate at minimum generation level (technical minimum)
- Development of Hydro Power Generation and increase its overall % contribution
- Without the option for load flexibility in the grid, there will be a risk of curtailment for the must-run energy and could lead to losses for the RE generator (e.g.: TN wind energy curtailment)
- Building supply & demand side forecasting/scheduling capabilities

# Improvement in battery technology

- Battery prices have been declining at a rapid pace with technological advancements making it feasible to use batteries to provide utility scale energy storage solution
- Batteries can be combined with renewables to offer grid linked stable power supply
- Improvement in battery technology is also opening up the field of electric vehicles (EV)
- EVs are expected to increase global electricity demand by 8%
- They are expected to represent 35% of new light-duty vehicle sales in 2040 (nearly 90 times the 2015 figure)
- The rise of EVs also opens up the opportunity of developing charging facilities for the vehicles

Battery Prices Are Falling Fast

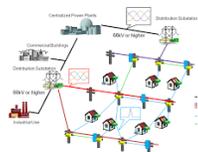


**Electric  
Vehicle  
Charging  
Stations**

# Potential Drivers for the sector

- Latent demand to materialise due to “Power for All”
- “Make in India” to provide boost to manufacturing activity
- GDP growth to remain buoyant in wake of the favourable factors like political stability, thrust of the Government on reforms
- Real demand growth and policy focus to catalyse demand growth in “Bharat”
- Continued reduction in capital cost of the renewables will support clean power growth
- Success in AT&C loss reduction and demand side efficiency initiative

**Demand growth and improvement in condition of Discoms to help in revival**



***DDG***



***Storage technologies***



***Charging infrastructure for electric vehicles***



***Smart homes, smart grids, smart cities***



***Data analytics***

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# Tata Power - Overview



**100+ years presence in the Indian Power Sector and pioneer with a number of firsts**



**10,577 MW Gross Capacity with presence across value chain**



**~ 3,000 MW Non-fossil fuel based power**



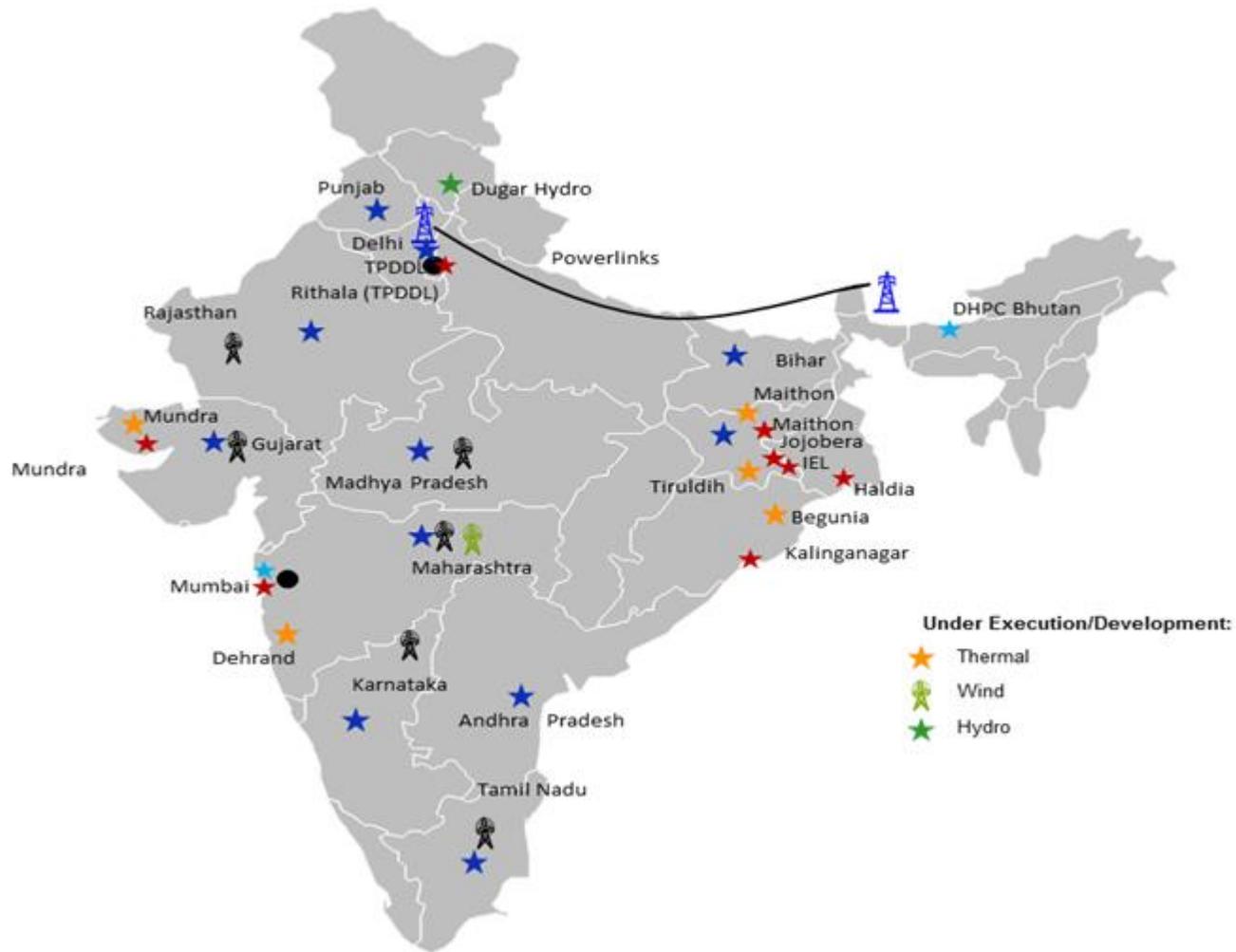
**Over US\$ 3 billion Market Cap**



**Largest Integrated Private Power Player**

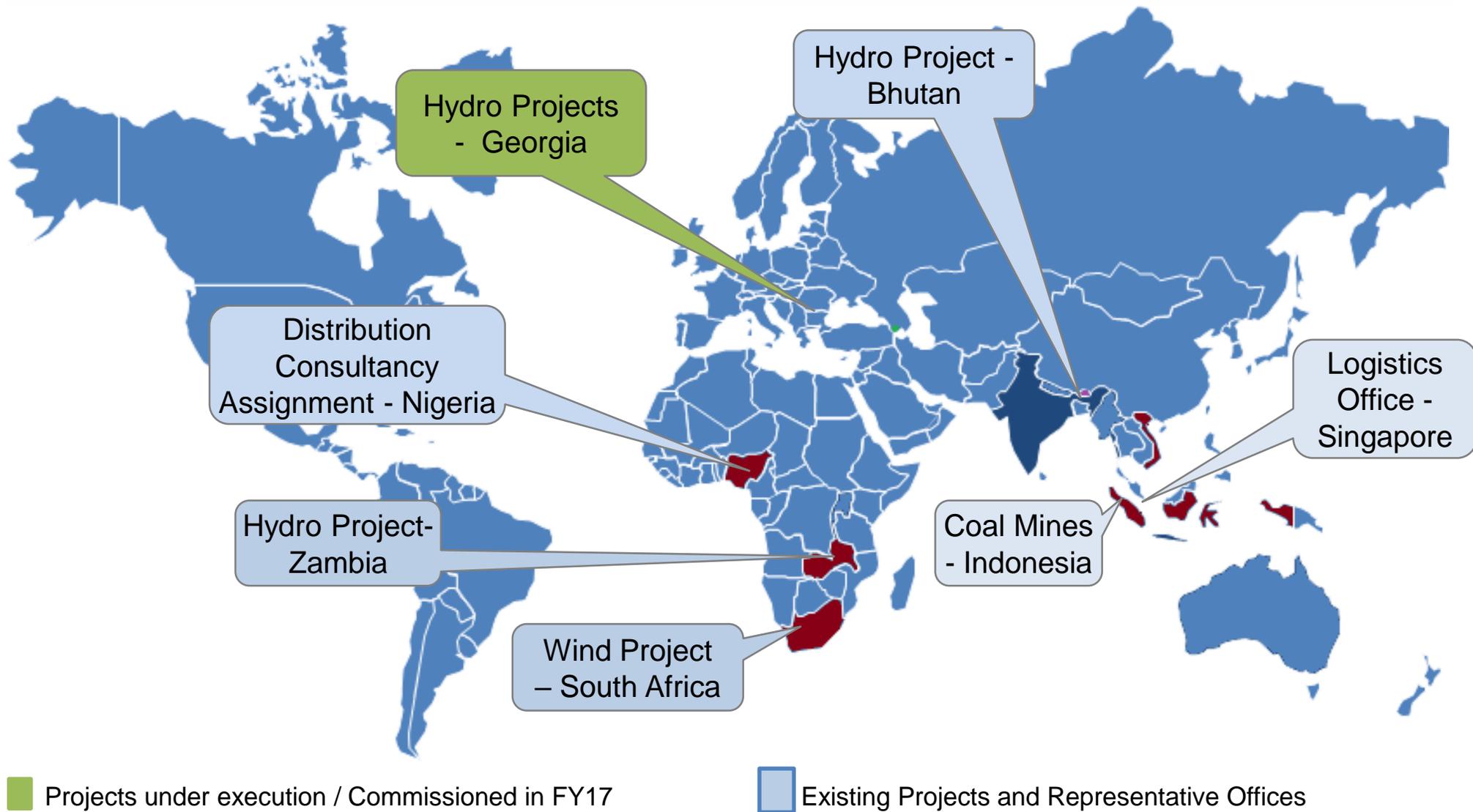
# Pan India footprint

- Operational:**
- ★ Thermal 7436 MW
  - ★ Hydro 447 MW
  - 🌬 Wind 911 MW
  - ★ Solar 933 MW
  - 🔥 Waste Heat 375 MW
  - 📡 Transmission
  - Distribution



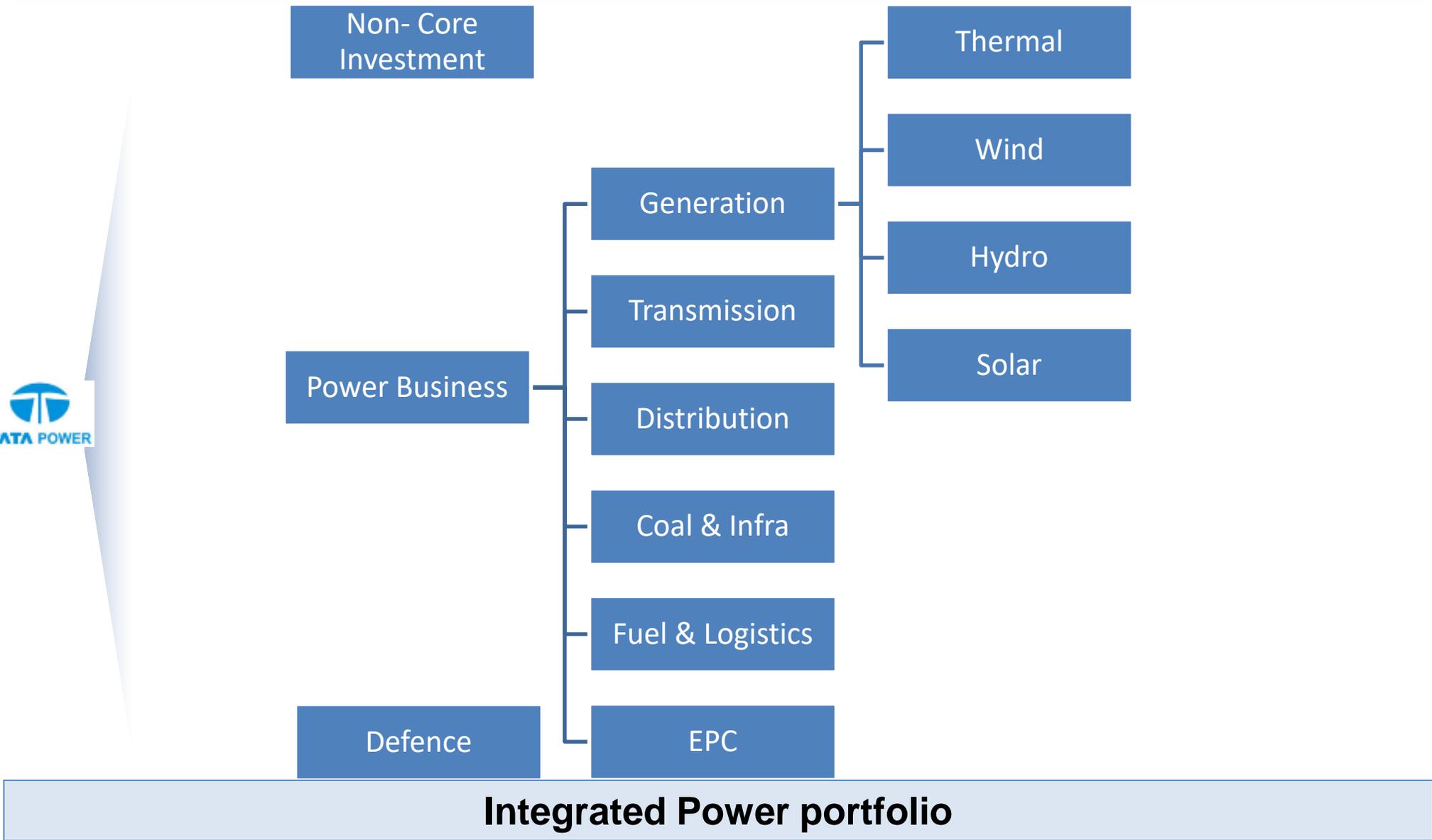
**10102 MW of generation across states**

# International Presence



**660 MW of assets added in the last three years**

# Diversified across value chain



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## Consolidated P&L Advertisement

₹ Cr

STATEMENT OF CONSOLIDATED FINANCIAL RESULTS FOR THE QUARTER AND YEAR ENDED 31ST MARCH, 2017					
Particulars	Quarter ended			Year ended	
	31-Mar-17	31-Dec-16	31-Mar-16	31-Mar-17	31-Mar-16
<b>1. Income</b>					
i) Revenue from Operations	7,166.79	6,683.74	7,297.74	27,897.72	29,500.89
ii) Other Income					
a) Gain/(Loss) on exchange (net)	63.74	(219.23)	(78.31)	(383.66)	(662.75)
b) Others	162.42	140.08	214.67	585.88	754.09
<b>Total Income</b>	<b>7,392.95</b>	<b>6,604.59</b>	<b>7,434.10</b>	<b>28,099.94</b>	<b>29,592.23</b>
<b>2. Expenses</b>					
a) Cost of power purchased	1,765.95	1,696.74	2,446.21	8,218.99	9,157.53
b) Cost of fuel	2,515.37	2,284.06	1,929.43	8,692.39	7,931.06
c) Raw materials consumed	378.70	250.79	305.04	1,009.67	1,136.61
d) Purchase of goods / spares / stock for resale	9.61	2.32	10.16	26.40	29.60
e) Transmission charges	57.13	55.82	52.45	224.13	282.09
f) Cost of components, materials and services in respect of contracts	163.71	63.40	186.49	349.98	397.66
g) (Increase) / Decrease in stock-in-trade and work-in-progress	3.35	43.63	24.52	28.34	34.16
h) Employee benefits expense	381.92	295.37	315.97	1,295.94	1,227.51
i) Finance costs	897.30	700.95	858.93	3,113.97	3,235.81
j) Depreciation and amortisation expense	569.84	531.80	440.99	1,988.59	1,648.73
k) Other expenses	544.34	588.76	655.91	2,205.18	2,157.68
<b>Total Expenses</b>	<b>7,287.22</b>	<b>6,513.64</b>	<b>7,226.10</b>	<b>27,153.58</b>	<b>27,238.44</b>
<b>3. Profit/(Loss) before Rate Regulated Activities, Exceptional Items, Tax and Share of Profit/(Loss) of Associates &amp; Joint Ventures (1-2)</b>	<b>105.73</b>	<b>90.95</b>	<b>208.00</b>	<b>946.36</b>	<b>2,353.79</b>
4. Add / (Less): Regulatory income/(expense) (net)	(183.20)	152.29	276.17	(686.46)	(807.97)
Add / (Less): Regulatory income/(expense) (net) in respect of earlier years	-	-	-	77.00	(167.27)
<b>5. Profit/(Loss) before Exceptional Items, Tax and Share of Profit/(Loss) of Associates &amp; Joint Ventures (3+4)</b>	<b>(77.47)</b>	<b>243.24</b>	<b>484.17</b>	<b>336.90</b>	<b>1,378.55</b>
<b>6. Less: Exceptional Items</b>					
Impairment (Net) (Refer Note 9)	-	-	26.20	-	97.84
Loss towards contractual obligations (Refer Note 8(b))	651.45	-	-	651.45	-
<b>7. Profit/(Loss) before Tax and Share of Profit/(Loss) of Associates &amp; Joint Ventures(5-6)</b>	<b>(728.92)</b>	<b>243.24</b>	<b>457.97</b>	<b>(314.55)</b>	<b>1,280.71</b>
<b>8. Tax Expense</b>					
Current Tax	123.93	150.06	92.72	609.37	525.21
Deferred Tax	(273.51)	(79.42)	27.13	(655.19)	155.10
<b>9. Net Profit/(Loss) for the Period/Year before Share of Profit/(Loss) of Associates &amp; Joint Ventures (7-8)</b>	<b>(579.34)</b>	<b>172.60</b>	<b>338.12</b>	<b>(268.73)</b>	<b>600.40</b>
10. Share of Profit/(Loss) of Associates and Joint Ventures	332.44	506.41	(255.17)	1,217.29	185.99
<b>11. Net Profit/(Loss) after Tax (9+10)</b>	<b>(246.90)</b>	<b>679.01</b>	<b>82.95</b>	<b>948.56</b>	<b>786.39</b>
Profit/(Loss) for the Period/Year attributable to:					
<b>Owners of the Company</b>	<b>(262.45)</b>	<b>599.20</b>	<b>21.68</b>	<b>745.48</b>	<b>662.20</b>
Non-controlling Interests	15.55	79.81	61.27	203.08	124.19
<b>12. Other Comprehensive Income (Net of Tax)</b>	<b>17.49</b>	<b>52.01</b>	<b>(280.14)</b>	<b>(132.72)</b>	<b>(23.77)</b>
<b>13. Total Comprehensive Income (11+12)</b>	<b>(229.41)</b>	<b>731.02</b>	<b>(197.19)</b>	<b>815.84</b>	<b>762.62</b>
Total Comprehensive Income attributable to:					
<b>Owners of the Company</b>	<b>(245.62)</b>	<b>651.54</b>	<b>(258.90)</b>	<b>613.35</b>	<b>638.79</b>
Non-controlling Interests	16.21	79.48	61.71	202.49	123.83

# Consolidated Performance Quarter on Quarter ( QoQ)

Fig in ₹ Cr

Particulars	Op. Income		EBITDA		PAT	
	Q4	Q4	Q4	Q4	Q4	Q4
	FY17	FY16	FY17	FY16	FY17	FY16
<b>Tata Power-Consolidated @</b>	6984	7574	1390	1784	-262	22
<b>Standalone &amp; Key Subsidiaries</b>						
Tata Power (Standalone)	1950	2019	677	795	-593	371
CGPL (Mundra UMPP)	1795	1603	26	387	-142	-196
MPL (Maithon Power)	613	589	195	224	61	74
TPDDL (Delhi Discom)	1306	1640	84	295	-1	105
TPTCL (Power Trading)	964	1471	13	15	6	6
Tata Power Solar (Solar Mfg)	1057	429	105	28	68	37
TPREL (Renewable Power)	83	68	116	61	29	5
WREPL (Renewable Power)	316		287		122	
Share of profit of associates and joint ventures					332	-255

**Conso PAT before provision for DOCOMO settlement Rs 389 Crs**

- From 14<sup>th</sup> Sep 2016 to 31<sup>st</sup> March 2017
- @ Revenue include regulatory income/expenses

# Consolidated Performance Year on Year ( YoY)



Fig in ₹ Cr

PARTICULAR	OP. INCOME		EBITDA		PAT	
	FY17	FY16	FY17	FY16	FY17	FY16
<b>Tata Power-Consolidated @</b>	27288	28526	5440	6264	746	662
<b>Standalone &amp; Key Subsidiaries</b>						
Tata Power (Standalone)	7282	8316	3088	3485	284	1355
CGPL (Mundra UMPP)#	6112	5908	558	1273	-849	-999
MPL (Maithon Power)	2405	2312	821	793	256	189
TPDDL (Delhi Discom)	6599	6023	913	902	261	174
TPTCL (Power Trading)	4673	6022	29	51	5	19
Tata Power Solar (Solar Mfg)	2261	1489	167	88	77	16
TPREL (Renewable Power)	318	240	369	224	69	15
WREPL (Renewable Power) *	634		583		116	
Share of profit of associates and joint ventures					1217	186

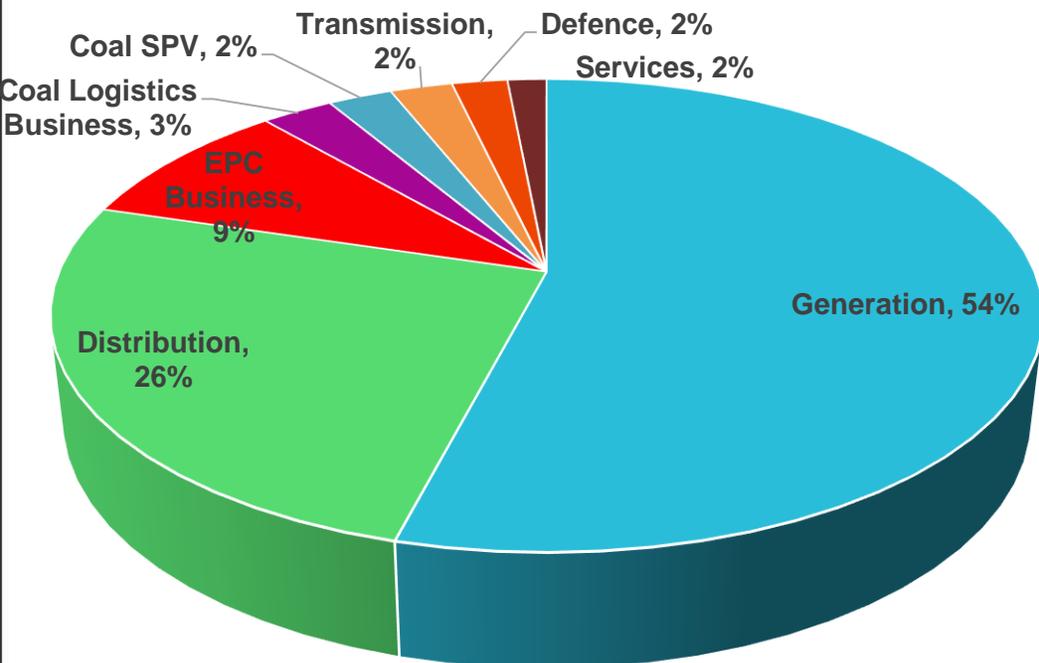
**Conso PAT before provision for DOCOMO settlement Rs 1397 Crs**

- From 14<sup>th</sup> Sep 2016 to 31<sup>st</sup> March 2017
- @ Revenue include regulatory income/expenses

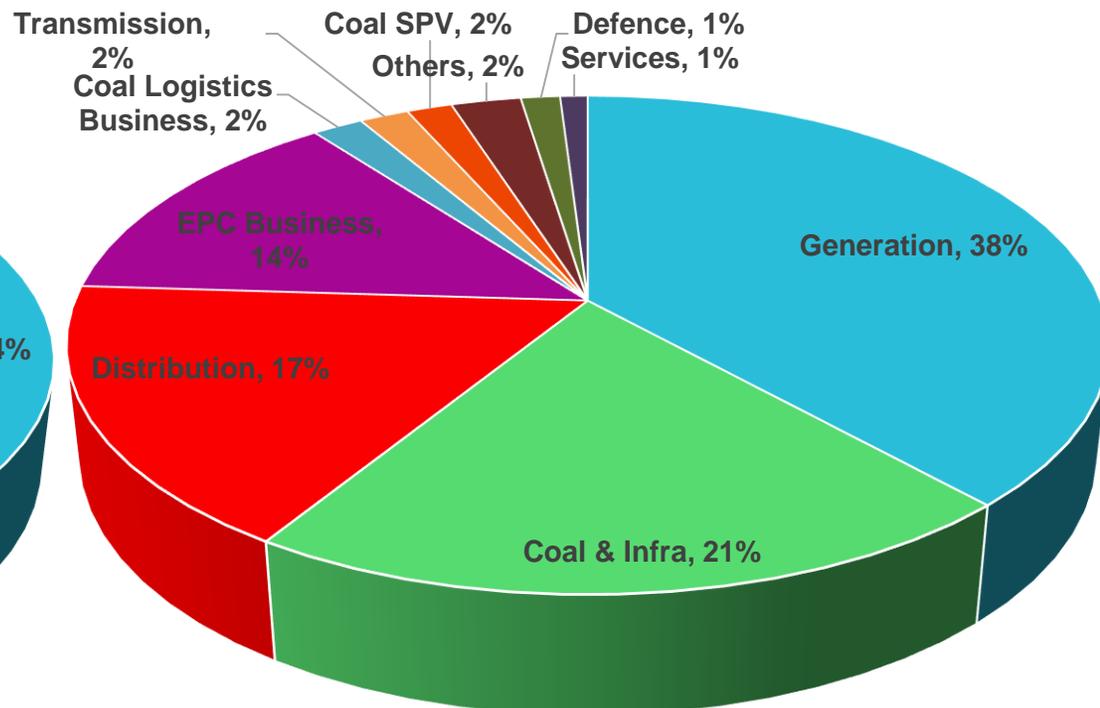
# Revenue\* profile for FY 17– IndAS Reporting Vs All Business



**IND AS**



**All Business**



**Coal & Infra which contributes 21% to Revenue is not consolidated**

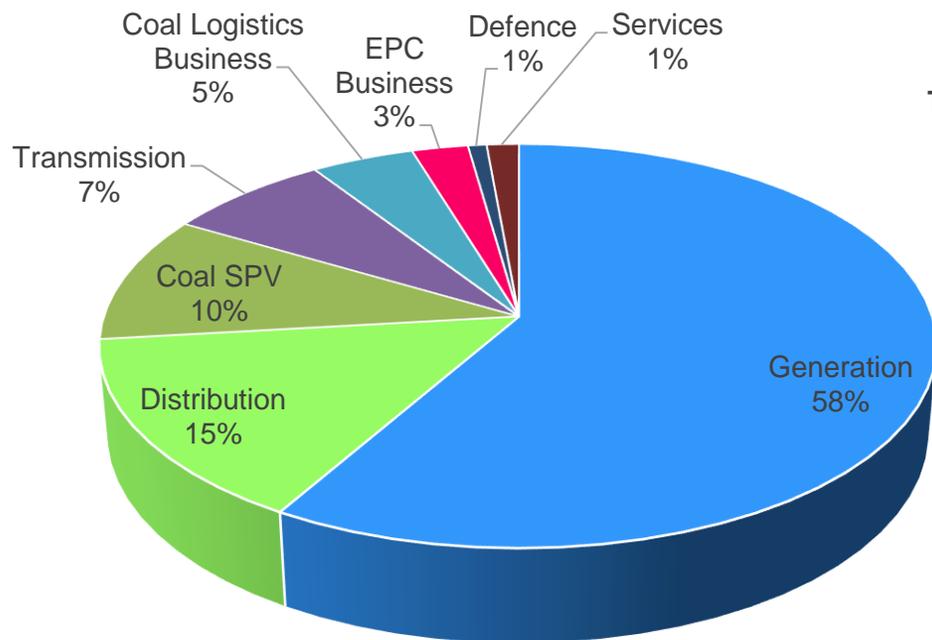
**Generation, Coal & Distribution accounts for 76 % of total business revenues**

\* Without Eliminations

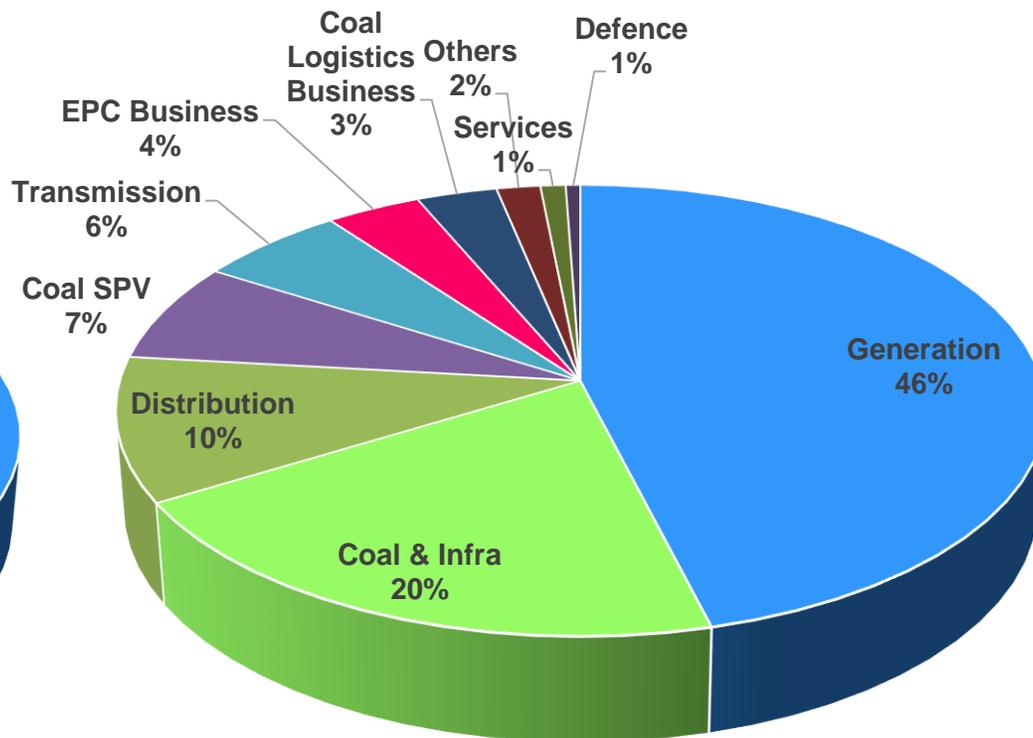
# EBITDA\* profile for FY17 – IndAS Reporting Vs All Business



**IND AS**



**All Business**



**Coal & Infra which contributes 20% to EBITDA is not consolidated**

**Generation, Coal & Distribution accounts for 76 % of total business revenues**

\* Without Eliminations

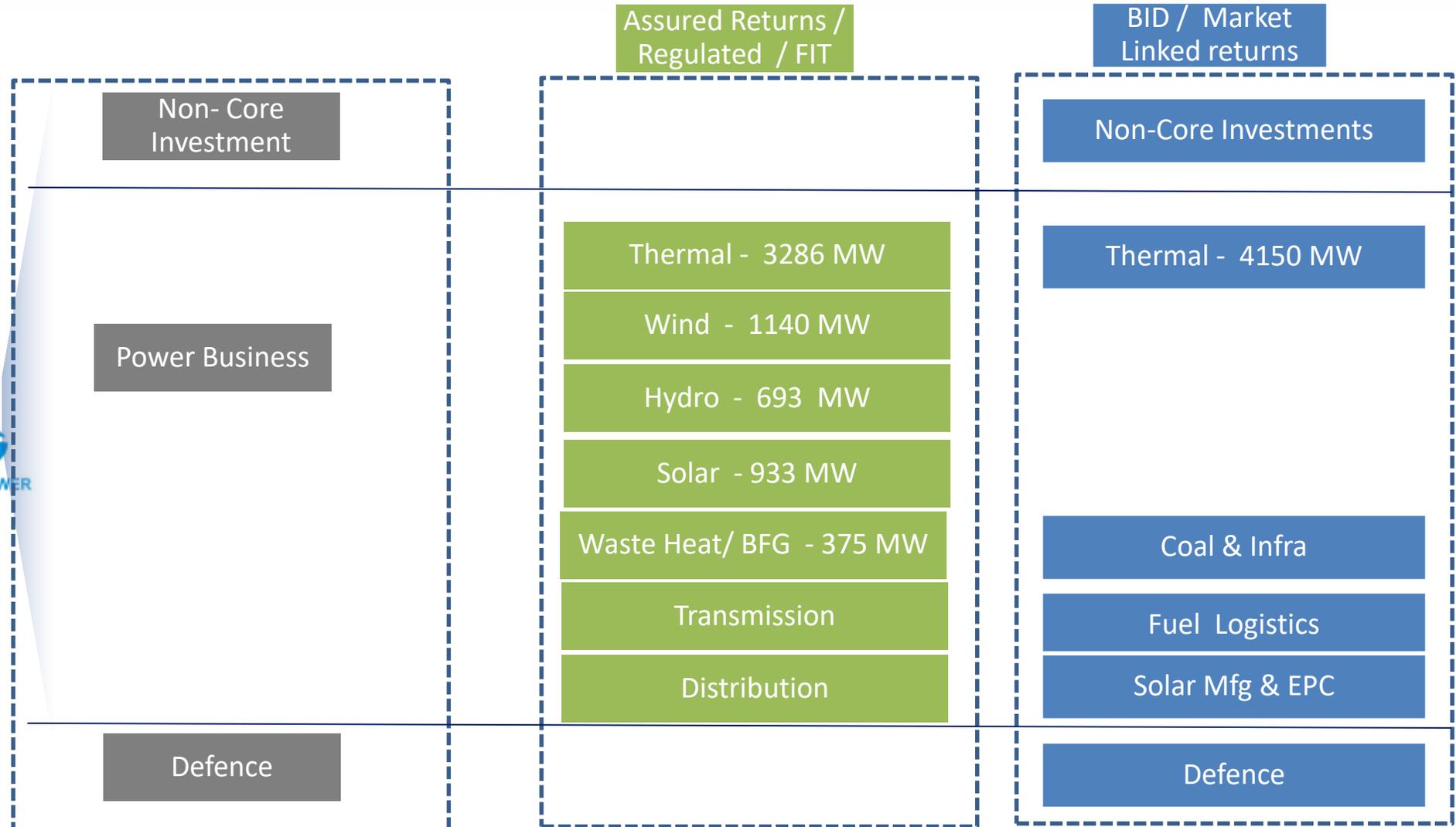
# Underlying Consolidated EBITDA



Q4FY17	Q4FY16	Q3FY17		FY17	FY16
106	208	91	<b>Profit Before Tax And Rate Regulated Activities (Line Item 3 in Adv)</b>	<b>946</b>	<b>2,354</b>
-183	276	152	Add: Rate Regulated Activities (Line Item 4 in Adv)	-609	-975
570	441	532	Add: Depreciation (Under Expenses in Adv)	1,989	1,649
897	859	701	Add: Finance Cost	3,114	3,236
<b>1,390</b>	<b>1,784</b>	<b>1,476</b>	<b>EBITDA</b>	<b>5,439</b>	<b>6,263</b>
166	25		Add: TPDDL Revenue Adjusted in Deferred Tax	527	44
51			Add: MPL - MAT credit Entitlement	51	
<b>1,607</b>	<b>1,809</b>	<b>1,476</b>	<b>Adjusted EBITDA</b>	<b>6,017</b>	<b>6,307</b>
<b>803</b>	<b>362</b>	<b>659</b>	<b>Add: EBITDA of JV Companies*</b>	<b>2,586</b>	<b>1,520</b>
523	126	412	KPC	1,393	694
47	15	29	BSSR	112	71
72	143	82	Coal Infra	477	527
36	1	43	Cennergi	176	-3
57	-	54	ITPC	188	33
21	21	18	Powerlinks	75	82
43	51	56	IEL	194	128
4	6	-35	Others	-30	-12
<b>2,410</b>	<b>2,171</b>	<b>2,135</b>	<b>Underlying EBITDA</b>	<b>8,603</b>	<b>7,827</b>

\* EBITDA of JV Companies at gross level.

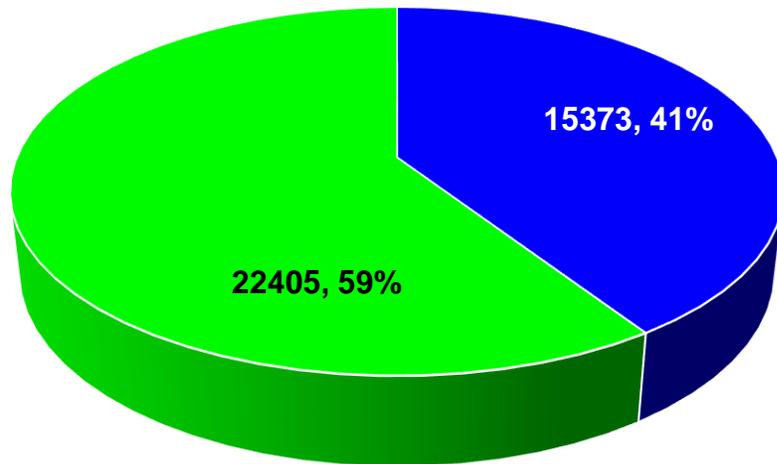
# Returns based portfolio view



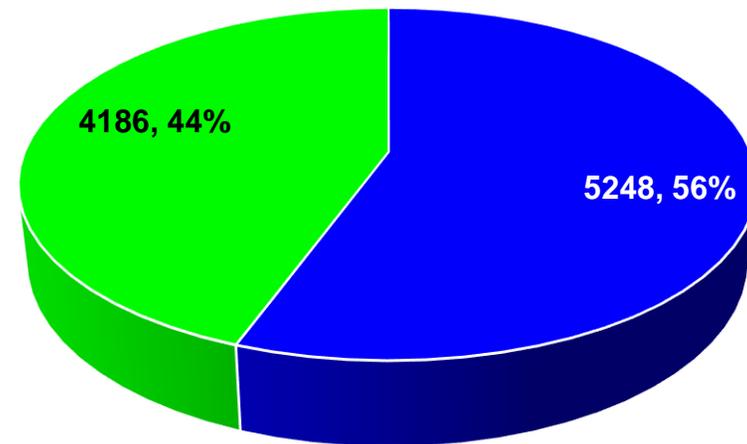
**Significant portion of core portfolio in assured returns / regulated business**

# Earning profile\* for FY17- based on Return Predictability

REVENUE Rs Crs



EBIDTA - Rs Crs



Assured Returns

Market Linked Returns

**Assured Business contribute significantly to the total revenue and EBITDA**

\* Including all businesses without eliminations

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**CGPL: Coal to Power – Integrated view**

Renewables Portfolio

International Portfolio

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Balance Sheet Strengthening – A key focus

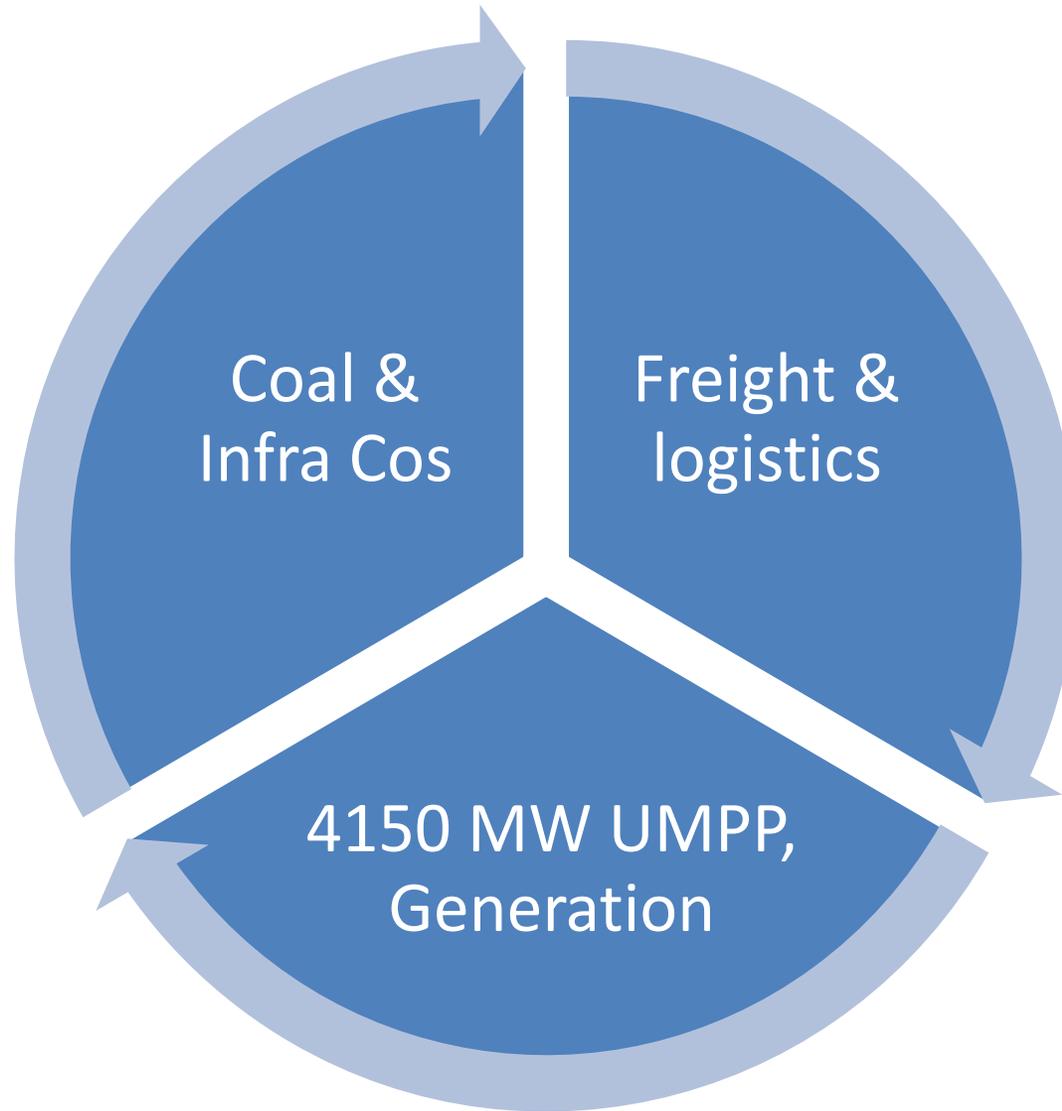
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# The Supreme Court Verdict on Mundra - Way Forward



- Legal Options
  - Legal advise is being sought whether to seek advise/clarification from the Court or CERC that commission has the general regulatory powers under Section 79(1)(b) even incase tariff is determined under section 63
- Other Options for loss mitigation
  - Sourcing competitive coal from other geographies
  - Blending of coal to optimize coal cost
  - Improve Operational efficiency
  - Sale of Power above 80% availability

# Coal to Generation- An integrated view



# CGPL: Key highlights- Quarterly



Item	Q4 FY17	Q4 FY16	Variance	Remarks
Generation (MUs)	7995	6919		
Sales (MU)	7383	6394		
Availability (%)	93%	87%		
FOB price of coal (USD/T)	47.59	42.69		
Revenue (₹ /Unit)	2.36	2.49		
Under Recovery ((₹ /Unit)	<b>(0.86)</b>	<b>(0.25)</b>		
<b>Financials</b> (Fig in ₹ Cr)				
Operating Income	1795	1603	12%	Higher availability
Operating Expenses	1771	1223	-45%	Higher coal price
Operating Profit	24	380	-94%	Higher under recovery
Other Income	2	7	-71%	
EBITDA	26	387	-93%	
Interest & Finance Cost	133	412	68%	Mainly due to MTM gains on IRS contracts - Rs 100 Crs, lower int due to refinancing,- Rs 20 Crs, Int waived off by Tata Power- Rs 90 Crs
Forex Loss / (Gain)	<b>(128)</b>	63	303%	Realignment gains due to favorable currency movement
Depreciation	163	108	-51%	Addition due to Govt. grant accounting
<b>PBT</b>	<b>(142)</b>	<b>(196)</b>	28%	

## CGPL: Key highlights- Yearly



Item	FY17	FY16	Variance	Remarks
Generation (MUs)	27460	25681		
Sales (MU)	25302	23679		
Availability (%)	80%	80%		
FOB price of coal (USD/Tonne)	49.51	46.73		
Revenue (₹ /Unit)	2.39	2.51		
Under Recovery ((₹ /Unit)	<b>(0.60)</b>	<b>(0.30)</b>		
<b>Financials (₹ in crs )</b>				
Operating Income	6112	5908	3%	Higher availability
Operating Expenses	5577	4665	-20%	Higher coal price
Operating Profit	535	1243	-57%	Higher under recovery
Other Income	22	30	-27%	
EBITDA	558	1273	-56%	Higher Under Recovery
Interest & Finance Cost	675	1295	48%	Mainly due to MTM gains on IRS contracts - Rs 346 Crs, lower int due to refinancing,- Rs 40 Crs, Int waived off by Tata Power- Rs 180 Crs
Forex Loss / (Gain)	229	588	61%	Realignment gains due to favorable currency movement
Depreciation	503	389	-29%	Govt. gain accounting
<b>PBT</b>	<b>(849)</b>	<b>(999)</b>	<b>15%</b>	

# Coal Business: Key highlights

QoQ-

Coal Company - KPC	Q4 FY17	Q4 FY16
Coal Mined (MT)	14.26	13.94
Coal Sold (MT)	14.12	14.68
FOB Revenue (USD/T)	63.92	47.21
Royalty (USD/T)	9.05	6.52
Net Revenue after royalty (USD/T)	54.87	40.69
Cost of Production (USD/T)	31.76	29.86
COGS (\$/T) - Includes Inv Movement	31.67	32.10
Gross Profit	23.20	8.59

YoY-

Coal Company - KPC	FY17	FY16
Coal Mined (MT)	58.27	57.54
Coal Sold (MT)	58.74	56.80
FOB Revenue (USD/T)	54.53	51.48
Royalty (USD/T)	7.43	6.67
Net Revenue after royalty (USD/T)	47.10	44.81
Cost of Production (USD/T)	30.39	33.48
COGS (\$/T) - Includes Inv Movement	31.05	33.44
Gross Profit	16.05	11.37

Note: The coal related data excludes the Artumin Mine which has been sold off.

# Coal to Power Generation – An Integrated view



## Generation at Mundra

CGPL	FY17	FY16	Variance	%
Revenue	6112	5908	204	3%
EBITDA	535	1243	(708)	-57%
PAT	(849)	(999)	150	-15%



## Coal mining & Coal Infra Cos

Fig in ₹ Cr

Coal & Infrastructure Business	FY17	FY16	Variance	%
Revenue	7862	7850	12	0%
EBITDA	1958	1017	942	93%
PAT	854	189	665	352%

## Coal Logistics Co

Fuel Logistics Business	FY17	FY16	Variance	%
Revenue	709	608	101	17%
EBITDA	304	137	167	122%
PAT	204	86	118	137%

**Incremental EBITDA LOSS of Rs. 708 Crs**



**Incremental PAT Gain of Rs. 783 Crs**

**Incremental losses in CGPL due to coal price increases largely offset by gains in Coal & Logistics businesses**

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# Renewable Portfolio - Overview

## Company Overview



TPREL is the largest renewable energy player in India with more than 9 years of experience having an operating portfolio of 2 GW and is held 100% by experienced Tata Power



Balanced portfolio with complimentary renewable energy sources and presence across 11 states, thereby de-risking portfolio



Robust platform to benefit from the huge market potential to increase the capacity by ~3.2x to reach 6 GW

## Renewable Portfolio

The Tata Power Company Limited

376 MW

Tata Power Renewable Energy Limited  
operating 423 mw and 326 under construction

By way of scheme of arrangement

Welspun Renewables Energy Private Limited  
(1,149 MW)

Indo Rama Renewables Jath Limited  
(30 MW)

## Financial Overview (Rs in Crs)

Particular	FY 17		
	TPREL (conso)	WREPL	Tata Power, Standalone, Wind Assets
Total Revenue incl other inc	437	646	296
EBITDA	401	583	257
PAT	66	116	34
Net Worth	4797	1813	230
Net Debt	2620	5549	700

Nearly 2 GW of Operating capacities and 326 MW in pipeline

# Renewables- Way forward



Non-Fossil based capacities to be 30-40% of the total portfolio

326 MW of projects in pipeline to be commissioned in FY18

Adequate potential capacity still available to be tapped

Renewable Portfolio to be 2500 MW taking the non fossil fuel based capacities to 3500 MW

Growth plans to be pursued with a cautious approach

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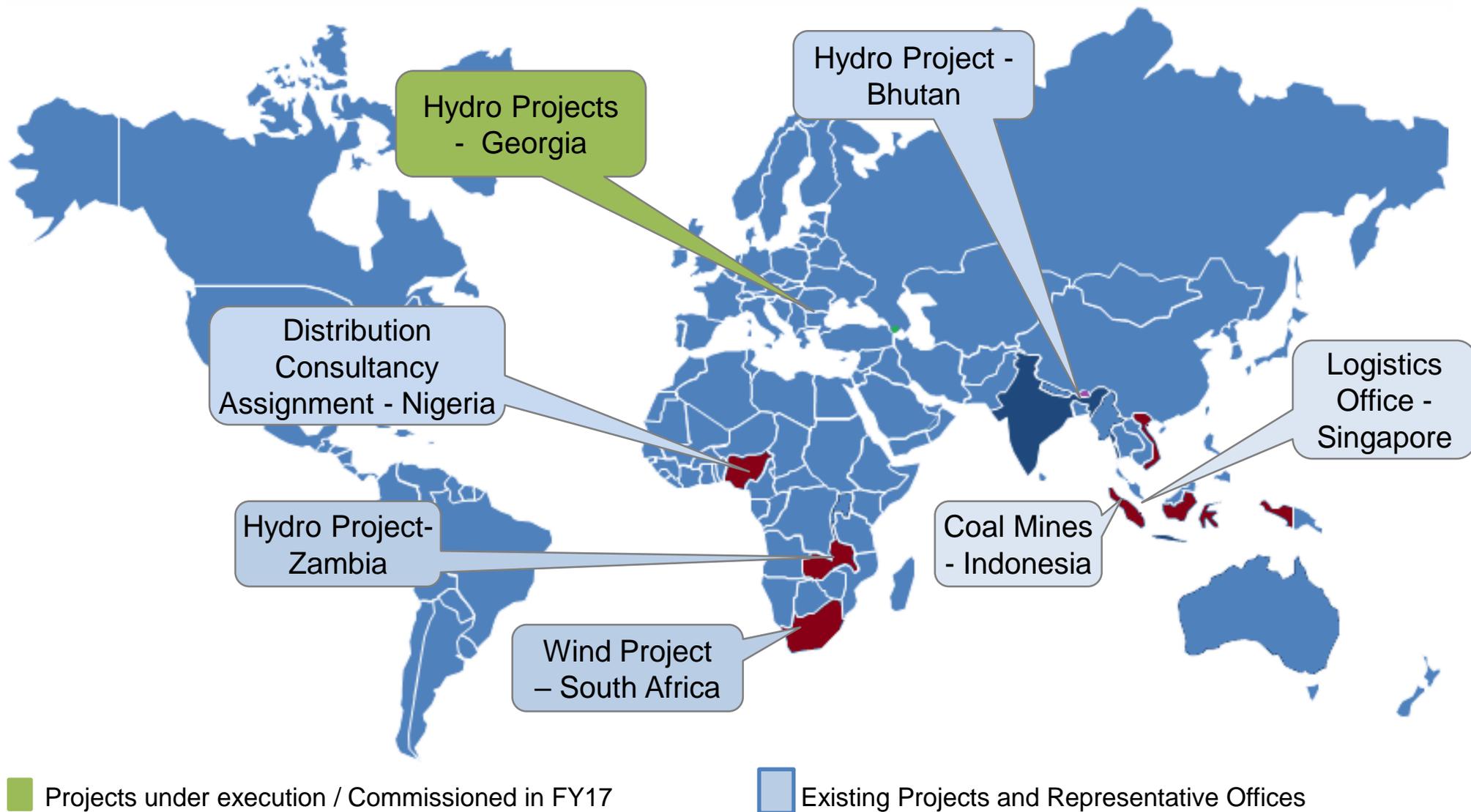
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# International Presence



# Power Projects - Summary

Particular	Unit	Domestic Projects	International projects*	Total
Capacity	MW	9917	660	10577
Equity Investment	Rs. Cr.	12795	963	13755

**660 MW of assets added in the last three years at an Investment of Rs. 963 Cr**

# Itezhi Tezhi Power Plant, Zambia



- Capacity & type**
  - 120 MW (2 units of 60 MW each),
  - Hydro Power plant on Itezhi Tezhi dam on the Kafue River
- Project Cost**
  - Project Cost: US\$ 234.4 million
- Funding**
  - Debt – US\$ 169.87 million,
  - Equity – US\$ 64.58 million (Tata Power & Zesco hold 50 % each)
- Power offtake**
  - 25 years PPA with ZESCO, Zambia State Utility Co, Availability based average tariff = 8.82 US\$/kWh,
- Completion**
  - 24 May 2016



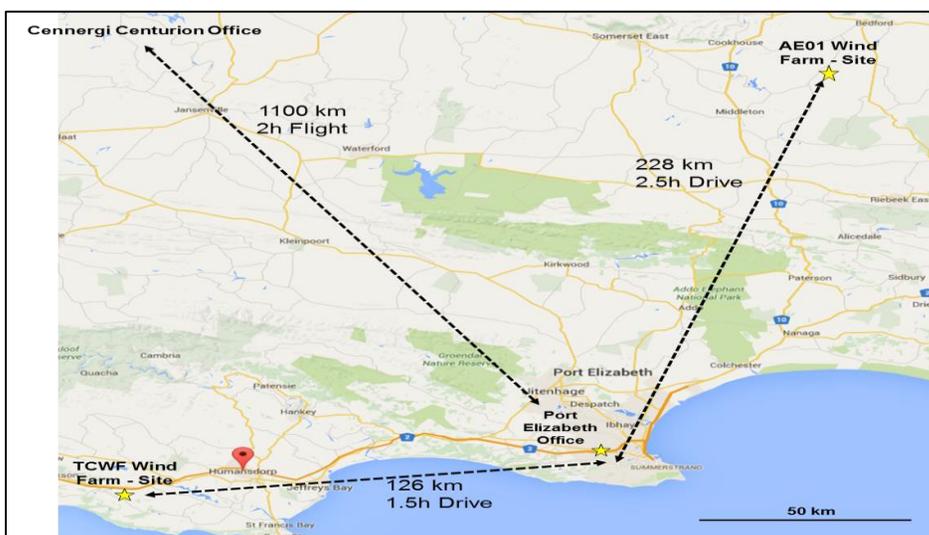
	Performance
Availability %	100%
Revenue*	265
EBITDA*	188
PAT*	111

\* ( in INR Crores ), for 50% share

# Cennergi Wind Projects



<b>Capacity &amp; type</b>	<ul style="list-style-type: none"> <li>134 MW Amakhala Emoyeni &amp; 95 MW Tsitsikamma Wind Farm Project in the <i>Eastern Cape, South Africa</i></li> </ul>
<b>Project Cost</b>	<ul style="list-style-type: none"> <li>Projects based in the <i>Eastern Cape</i>, 134 MW Amakhala Emoyeni &amp; 95 MW Tsitsikamma Wind Farm Project</li> </ul>
<b>Funding</b>	<ul style="list-style-type: none"> <li>Project Cost: ZAR Mio 6634 ( USD 474 Mio @ Exc Rate of 1 USD=14 ZAR )</li> <li>Debt – US\$ 169.87 million, Equity – US\$ 64.58 million (Tata Power share of 50%)</li> </ul>
<b>Power offtake</b>	<ul style="list-style-type: none"> <li>20 years PPA with Eskom, Competitive Bid tariff, FY 2017 Tariff - ZAR 1417.83/MWh,</li> </ul>
<b>Completion</b>	<ul style="list-style-type: none"> <li>Aug 2016</li> </ul>



	Performance
Availability %	100%
Revenue*	99
EBITDA*	113
PAT*	(55)

\* Rs Cr for 50% share

# Shuakhevi Hydro Power Project, Georgia



Capacity & type	▪ Phase-I: Shuakhevi (187 MW) & Phase-II: Koromkheti (115 MW) in South West Georgia.
Project Cost	▪ US\$ 420 Million
Funding	▪ Debt – US\$ 250 Million, Equity – US\$ 170 million (Tata Power 40% , Clean Energy Invest AS, Norway 40% IFC 20% each)
Power offtake	▪ Export Power to Turkey at Merchant rates and partly sell domestically to ESCO, Goergian State Utility,
Completion	▪ Phase 1 expected to be commissioned in May 2017



- 37 kms of tunnel constructed in record
- Three different types of dams/weir constructed under varying geological and sub-surface conditions.
- First hydropower project certified by the UNFCCC for carbon emission reductions.
- Largest private sector hydro power plant representing largest FDI in the energy sector and expected to reduce greenhouse gas emissions by more than 200,000 tons per year.

# Dagachu Power Project, Bhutan



- Capacity & type**
  - Dagachu 126 MW, run of the river hydro power plant on dagachhu river in Bhutan
- Project Cost**
  - US\$ 200 Million
- Funding**
  - Debt – US\$ 120 Million , Equity – US\$ 80 million
  - (Druk Green Power 59% , Tata Power 26%, National Pension fund & PF of Bhutan, 15% each)
- Power offtake**
  - Power export to India through 25 years Long Term PPA with Tata Power Trading Co Limited.
- Completion**
  - March 2015



	Performance
Availability %	100%
Revenue*	31
EBITDA*	31
PAT*	13

\* Rs Cr for, for 26% share

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# Tata Power Platform

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- To acquire Thermal, Hydel and Transmission Assets in India
- Platform incorporated with the following sponsors / Investors:
  - Tata Power (26%)
  - ICICI Bank (10%)
  - CDPQ (30%)
  - KIA (18%)
  - SGRF (16%)
- Tata Power will provide strategic, operational and financial advise
- Five to six generating assets, one transmission asset are shortlisted and being evaluated

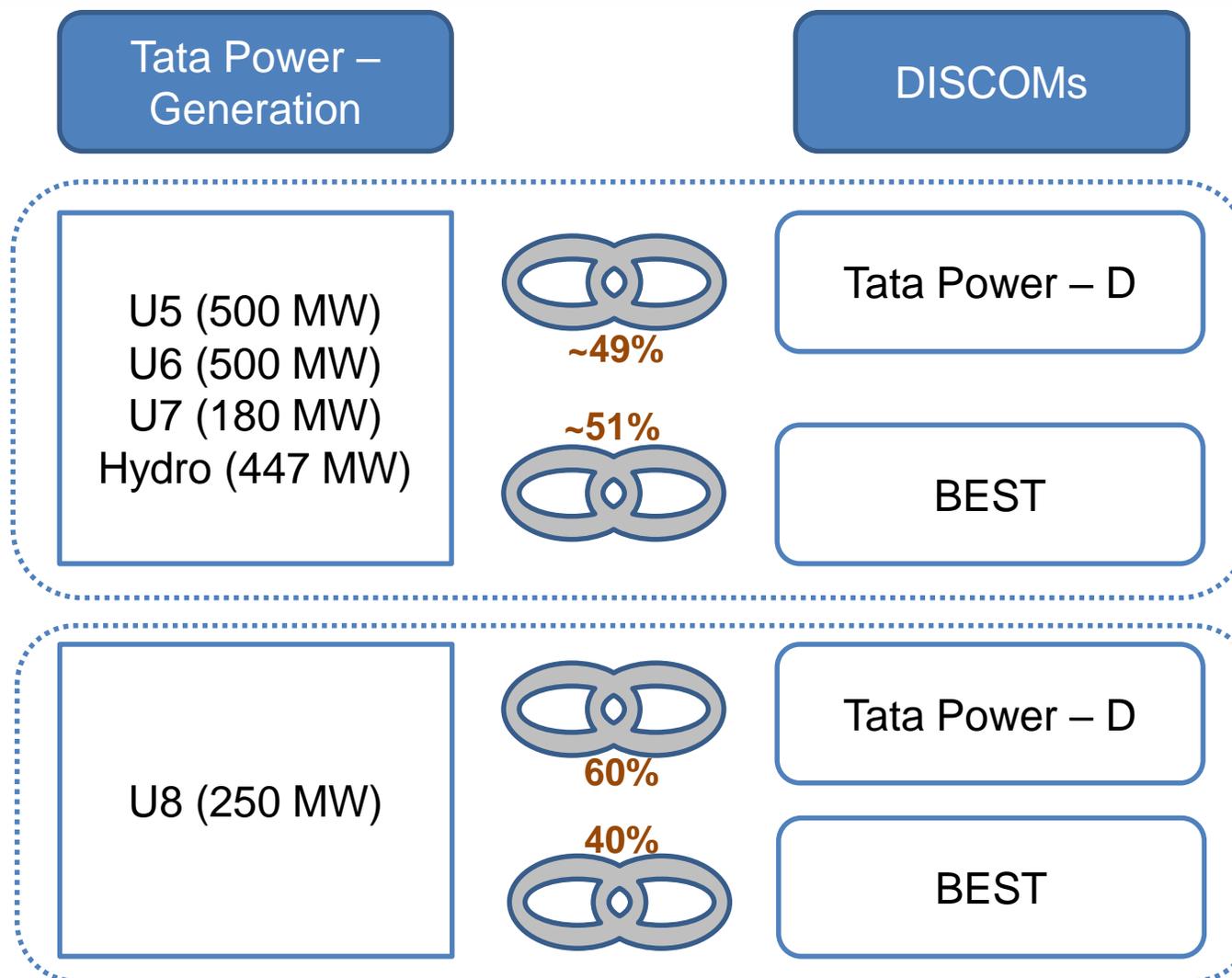
**Inorganic growth potential through Platform**

- Franchise for the distribution of electricity in Ajmer, Rajasthan
- Operate, maintain, billing and collection in Ajmer circle for a period of 20 years
- Experience of Delhi, where the losses reduced from a whopping 53 per cent to 8.8 per cent, to be replicated through strategic planning, transparency and customer oriented methods.

**Significant potential to increase Distribution Footprint**

# Tata Power – Mumbai Operations Generation

Current Power Tie up with Mumbai DISCOMs till 31<sup>st</sup> March 2018



Company is working with key stakeholders for extending current PPAs

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# Leverage Management- Debt Profile



Fig in ₹ Cr

	Standalone			Consolidated		
	Rupee	Forex	Total	Rupee	Forex	Total
Long term	8,848	-	8,848	17,502	7,641	25,143
Short term	1,983	409	2,392	8,475	7,804	16,280
Current Maturity of LT	4,879	385	5,264	6,279	1,118	7,397
<b>Total Debt</b>	<b>15,710</b>	<b>794</b>	<b>16,504</b>	<b>32,256</b>	<b>16,564</b>	<b>48,820</b>
(-)Cash			233			2,039
<b>Net Debt</b>			<b>16,271</b>			<b>46,781</b>
<b>Equity</b>			<b>16,549</b>			<b>15,148</b>
<b>Net Debt to Equity</b>			<b>0.98</b>			<b>3.09</b>

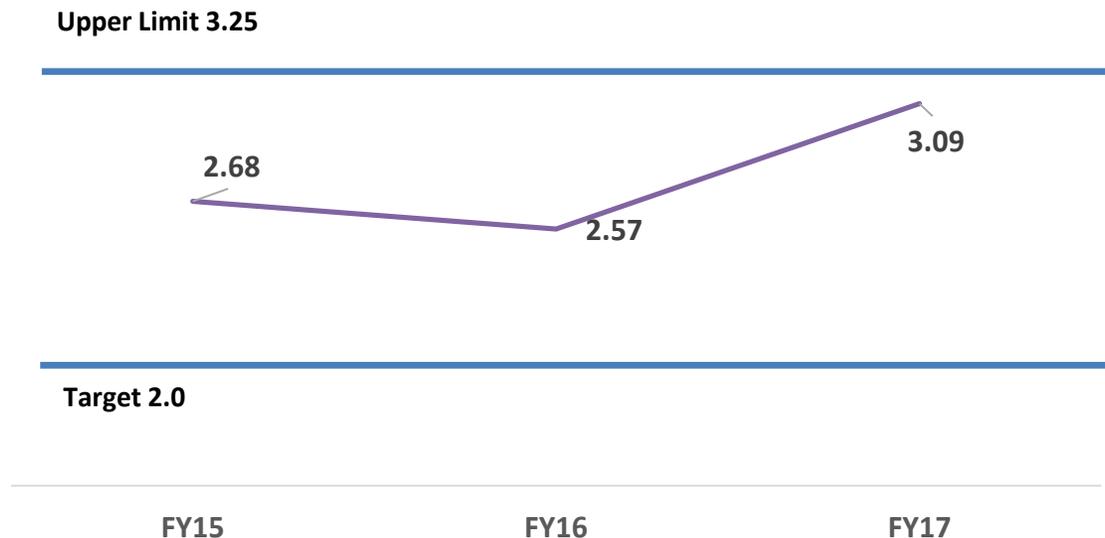
Includes NCD of Rs 3500 crore raised for Welspun Acquisition

Includes debt of WREPL debt of Rs 5500 crore consolidated on acquisition

Impacted by interim debt funding of Welspun acquisition.

# Leverage Management- Debt Profile

Net Debt / Equity (x)



**Leverage has gone up primarily due to Welspun acquisition debt and deterioration in CGPL net worth**

**Leverage to be improved through various options including monetization of non core assets**

# SUMMARY



An Integrated player across the value chain, well positioned to withstand sectoral challenges and capitalize on opportunities

Existing “Assured returns” business contribute significantly to the Profitability

Integrated Power and Coal Business providing a hedge from further losses; other initiatives to reduce losses

Focus on Renewables without compromising on Returns

Target to achieve a D:E ratio and Net Debt to EBITDA which are reasonable

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# Major Impact Areas

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- ✓ Erstwhile subsidiaries Coal & Infra Companies, Overseas Joint Ventures, IEL, Powerlinks and Dugar Hydro have been reclassified as Joint Ventures and not consolidated now on line by line basis .
- ✓ Fair valuation of forward and option contracts and IRS
- ✓ De-recognition of Interest on Forex Loan Capitalized.
- ✓ Investments including Mutual Funds accounted at fair value
- ✓ No Revaluation of Investments and Fixed Assets

# First Time Adoption Choices Exercised

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- ✓ Gain or loss arising out of fair value of the long term investment to be taken into Other Comprehensive Income and of trade investment to Profit & Loss Account.
- ✓ Property Plant & Equipment (PPE) of Regulated assets unchanged. For others it is Ind - AS cost or Fair valuation.
- ✓ Cumulative Translation Gain/Loss (Foreign Currency Translation Reserve) has been transferred to General Reserve.
- ✓ Cost of the investments in subsidiaries, joint ventures and associates has been accounted by taking previous GAAP carrying amount.
- ✓ The Company has discontinued with the existing policy as per the previous GAAP for accounting for exchange differences arising from translation of long-term foreign currency monetary items.

# Consolidation and Joint Arrangement – Change in status & consolidation of Joint Ventures



Name of the Companies	I-GAAP Accounting as Subsidiaries	Ind AS Accounting as JVs	Impact on Conso Balance Sheet and Profit & Loss
Powerlinks Transmission Ltd	Subsidiaries in I-GAAP and consolidated as per AS 21	Converted as a Joint Venture- Equity Accounting	Yes
Industrial Energy Limited			
Dugar Hydro Power Limited			

# Consolidation and Joint Venture – Change in Consolidation method for major Joint Ventures



Joint Venture	Existing GAAP accounting	IND-AS Accounting	Impact on Conso Balance Sheet & Profit & Loss Account
Arutmin	Proportionate consolidation method	Equity Accounting	Yes
KPC			
Indocoal			
Candice			
OTP Geothermal			
Kalimantan Prima Power			
Cennergi			
PTMP			
BSSR			
ANBV			
Tubed Coal mines		Proportionate consolidation	No
Mandakini Coal Company			

The overall impact of change will be the reduction in the value of assets and liabilities in the Consolidated Balance sheet and reduction in the revenue figure in Consolidated Profit & Loss A/c. Net assets value will be shown as Investment and share of profit will be added as per equity accounting.

# How does INDAS affect accounting of Derivative Instruments



- Mark To Market (MTM) on loan is now taken to P & L instead of being capitalised.
- MTM on hedge will now be taken to P & L. Earlier, the impact on translation of hedge (forwards) was taken to Fixed assets.
- Realignment of options taken for principal and Interest were ignored in I-GAAP, whereas in IND-AS, instead of realignment, MTM will flow through the P & L.
- Gain on options, if any, will be taken to P & L in Ind-AS. Earlier, we could not book the gains under options.
- On the IRS, the movement between the hedge rate and the MTM rate will affect the P & L. Earlier, the impact used to be retained in the balance sheet.

**TATA POWER**

Lighting up Lives!

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Agility                      Care  
   Integrity  
Excellence                      Collaboration  
Trust                                      Respect

# Annexure

# Tata Power (Standalone) - Quarterly Financial Performance

Fig in ₹ Cr

PARTICULAR	Q4FY17	Q4FY16	VARIANCE	REMARKS
Operating Income	1950	2019	-3%	
Operating Expenses	1429	1454	-2%	₹30 Cr. prov. for unit 6 spares provision in this quarter
Operating Profit	521	565	-8%	
Other Income	155	230	-33%	PY had Interest income from CGPL
EBITDA	677	795	-15%	
Interest cost	362	279	-30%	Due to Welspun acquisition debt
Depreciation	160	154	-4%	
Tax Expenses	97	-9		PYQ had tax reversal excess provision (-) ₹69 C
<b>PAT</b>	<b>58</b>	<b>371</b>	<b>-84%</b>	
Adjustments for Docomo	-651			
PAT after Adjustments	-593			

# Tata Power (Standalone) - Yearly Financial Performance



Fig in ₹ Cr

PARTICULAR	FY17	FY16	VARIANCE	REMARKS
Operating Income	7282	8315	12%	Lower carrying cost Rs 79 Crs, Tax Rs 37 Crs, O&M Rs 67 Crs,, PY had a favorable MYT order Rs 137 Crs and reversal of disallowance for Rs 85 Crs and lower fuel and power procurement cost.
Operating Expenses	5108	5735	11%	Provision for Tiruldih & Narajmarthapur asset disposal (-) ₹65 Cr, ₹30 Cr. prov. for unit 6 spares provision, lower fuel and power procurement cost
Operating Profit	2174	2580	-16%	
Other Income	914	905	1%	
EBITDA	3088	3485	-11%	
Interest cost	1296	1146	-13%	Int on Welspun Acq Debt Rs 197 Crs
Depreciation	634	605	-5%	
Tax Expenses	223	379	41%	Reversal tax entry for Deferred tax for Rs 180 Crs pursuant to the order Dispute Resolution Panel
<b>PAT</b>	<b>935</b>	<b>1355</b>	<b>31%</b>	
Adjustments for Docomo	-651			Adjustment for Docomo Liability
PAT after Adjustments	284	1355		

# Maithon - Key highlights



Quarterly	Particular	Q4 FY17	Q4 Fy16	Variance	Remarks
	Generation (MUs)	1932	1,795	8%	
	Sales (MU)	1826	1,698	8%	
	Availability (%)	94%	88%		
	Regulated Equity (Rs cr)	1444	1,444		
	Operating Income (Rs cr)	613	589	4%	
	EBITDA (Rs cr)	195	224	-13%	Due to Overhaul & Increase in O&M exp
	Interest cost (Rs cr)	59	70	16%	
	PAT (Rs cr)	61	74	-18%	

Yearly	Particular	FY17	FY16	Variance	Remarks
	Generation (MUs)	7,356	7,173	3%	
	Sales (MU)	6,939	6,745	3%	
	Availability (%)	92%	90%		
	Regulated Equity (Rs cr)	1444	1403		
	Operating Income (Rs cr)	2,405	2,302	5%	Entire capacity was tied up during the year.
	EBITDA (Rs cr)	821	793	4%	
	Interest cost (Rs cr)	258	310	17%	Due to refinancing of loans
	PAT (Rs cr)	256	189	37%	

Recovery of full capacity charges on account of tie-up of entire installed capacity

# Welspun Renewable - Key highlights



Operating and Planned Capacity	Q4 FY17	14 Sept'16 - 31 Mar'17*
<b>Capacity - Wind</b>	<b>146</b>	<b>146</b>
<b>Capacity - Solar</b>	<b>995</b>	<b>995</b>
<b>Capacity - Total</b>	<b>1141</b>	<b>1141</b>
Generation (MUs)	448	879
PLF (%)	23%	20%
Revenue (Rs cr)	316	634
EBITDA (Rs cr)	287	583
Finance Cost	137	313
PAT (Rs cr)	122	116

Performance in line with the expectations, Refinancing of the loans are underway which will lead to reduction in Interest Cost

\* Acquired w.e.f. 14<sup>th</sup> Sep 2016

# Tata Power Renewable (Standalone)- Key highlights



Financials	Q4FY17	Q4 FY16	Remarks	Fig in ₹ Cr
Generation (MUs)	137	80		
Sales (MU)	131	75		
<b>Standalone Performance</b>				
Operating Income	83	68		
Operating Expenses	9	9		
Operating Profit	74	59	Higher Generation Leading to Higher Operating Profit	
Other Income	42	2	Due to interest on loans to Subs, 17 Crs, Int of past dues, 23 Crs	
EBITDA	116	61		
Interest & Finance Cost	33	26		
Depreciation	42	26	Due to Capacity Addition	
PBT	41	9		
PAT	29	5		

79 MW of capacity additions during the quarter

# Tata Power Renewable (Standalone)- Key highlights



Fig in ₹ Cr

Financials	FY 17	FY 16	Remarks
Generation (MUs)	505	340	
Sales (MU)	484	303	
PLF - Wind%	17%		
PLF - Solar %	19%		
Standalone Performance			
Operating Income	318	240	Higher generation
Operating Expenses	31	24	
Operating Profit	287	216	Higher generation
Other Income	82	8	Interest from loans to Subsidiaries & interest on past dues.
EBITDA	369	224	
Interest & Finance Cost	132	97	Due to new capacity addition
Depreciation	139	95	Due to additional capitalization
PAT	69	15	

211 MW of capacity additions during the year

# Tata Power Delhi Distribution Limited – Key Highlights



Fig in ₹ Cr

## Quarterly

Particular	Q4 FY17	Q4 FY16	Remarks
Operating Income	1306	1640	Lower billing rate
EBITDA	84	295	Higher O&M , lower carrying cost Rs 60 Crs, prov for Rithala, past period Rs 50 crs and CY 40 Crs
Interest cost	90	110	
PAT	-1	105	

## Yearly

Particular	FY17	FY16	Remarks
Operating Income	6599	6023	
EBITDA	913	902	
Interest cost	401	472	
PAT	261	174	

# Share of JVs & Associates\*



Fig in ₹ Cr

Jv/Associates	Particulars	FY 17	FY 16
JV	Coal & Infra companies	799	(8)
	International subsidiaries	14	42
	PTL and IEL	123	91
Associates	Panatone Finvest Ltd	146	33
	Tata Projects Ltd	65	31
	Tata Communications Ltd	56	0
	Dagachhu Hydro Power Corp	13	(6)
	Other Associates	1	4
	<b>Total</b>		<b>1,217</b>

\* As appearing in the Consolidated published results

# Regulated Equity & Regulated Asset



Fig in ₹ Cr

<b>Regulated Equity</b>	<b>Q4 FY17</b>	<b>Q4 FY16</b>
Mumbai Operation	3778	3632
Tata Power Delhi Distribution	1163	1211
Maithon Power	1444	1444
Powerlinks Transmission	466	466
<b>Total</b>	<b>6851</b>	<b>6753</b>

<b>Regulated Assets/ (Liability)</b>	<b>Q4 FY17</b>	<b>Q4 FY16</b>
Mumbai Operation	1518	1754
Tata Power Delhi Distribution	4574	4720
<b>Total</b>	<b>6092</b>	<b>6474</b>