

VEDANTA LIMITED

**INVESTOR  
PRESENTATION  
FY2019**

May 2019

*We Are...*  
GROWING  
RESPONSIBLY

OIL & GAS | ZINC-LEAD-SILVER | ALUMINIUM & POWER | COPPER | IRON ORE & STEEL

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# FY2019 Review

**Venkat**

Chief Executive Officer

## Safety

- Zero fatality in Q4 (9 in FY 2019)

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- Safety focus across business:
  - Visible leadership
  - Safety Critical Tasks ensuring controls in place
  - Business Partner engagement

## Environment

- 94% waste recycling in FY 2019

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- 16.6% reduction in GHG Emissions

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- Conserved 1.4 million GJ of energy

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- Conserved 2.3 million cubic meter of water

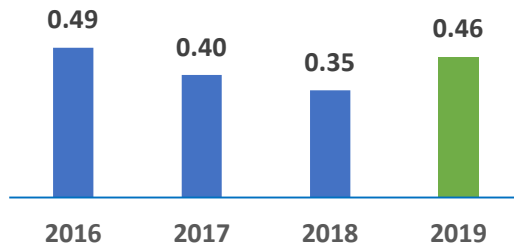
## Sustainability

- Reusing 60% tailings as ‘paste-fills’ for void replacement at Zinc India underground mine

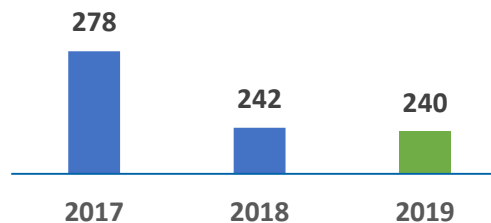
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- Using tailings dams and waste pits as land for solar farms at Zinc India (**38MW plant saving additional land footprint of 190 acres**)

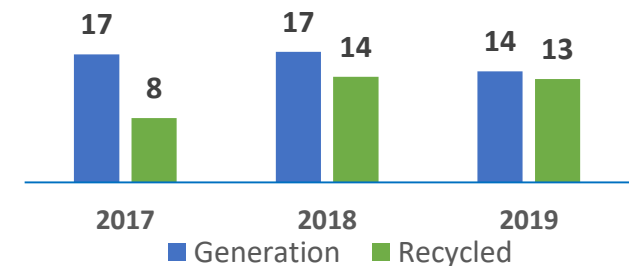
LTIFR






Water Consumption (m<sup>3</sup>)



Waste Recycling (mMT)  
(High volume low effect)



## Benefitting the lives of 3.0 million people across 1,042 villages Spent ₹ 309 Crore in FY 2019 (₹ 244 Cr in FY 2018)

<p><b>Nand Ghar</b></p>		<ul style="list-style-type: none"> <li>• 502 centers across Rajasthan, Uttar Pradesh, Madhya Pradesh, Goa and Uttarakhand</li> <li>• Supporting 17,000 children and 15,000 women</li> <li>• Building world class model of pre-school education and healthcare</li> <li>• Targeting 4,000 centers, 85 million children and 20 million women across 11 states</li> </ul>
<p><b>Sports</b></p>		<ul style="list-style-type: none"> <li>• Sesa Football Academy, four centers train over 500 youth players every week</li> <li>• At Zinc Football, 64 community feeder academies currently training up nearly 2,000 talents under 14</li> </ul>
<p><b>Medical Centre at Odisha</b></p>		<ul style="list-style-type: none"> <li>• Built 350 bedded state-of-art tertiary care oncology facility at Naya Raipur</li> <li>• Over 4,000 patients treated</li> <li>• Over 250 surgeries</li> <li>• Radiation therapy to 230+ patients and 1,000+ chemotherapy sessions</li> </ul>

## Oil & Gas: Central Polymer Facility



- World’s largest Enhanced Oil Recovery polymer flood project in Mangala Field
- “New age” technology of High Density Multi Stage Fracturing in horizontal transverse wells – first in India

## Zinc International: Collision Awareness System



- Safety: State of the art Collision Awareness system for vehicle and individuals
- “Smart Ore” a digital concept providing end to end solution of mine performance and mine condition

## Zinc India: Autonomous Load Haul Dump (LHD) Machine



- Use of Technology for safety and improved productivity
  - Autonomous machines for 24x7 mining at SK mine
  - Remote controlled LHD for ore hauling

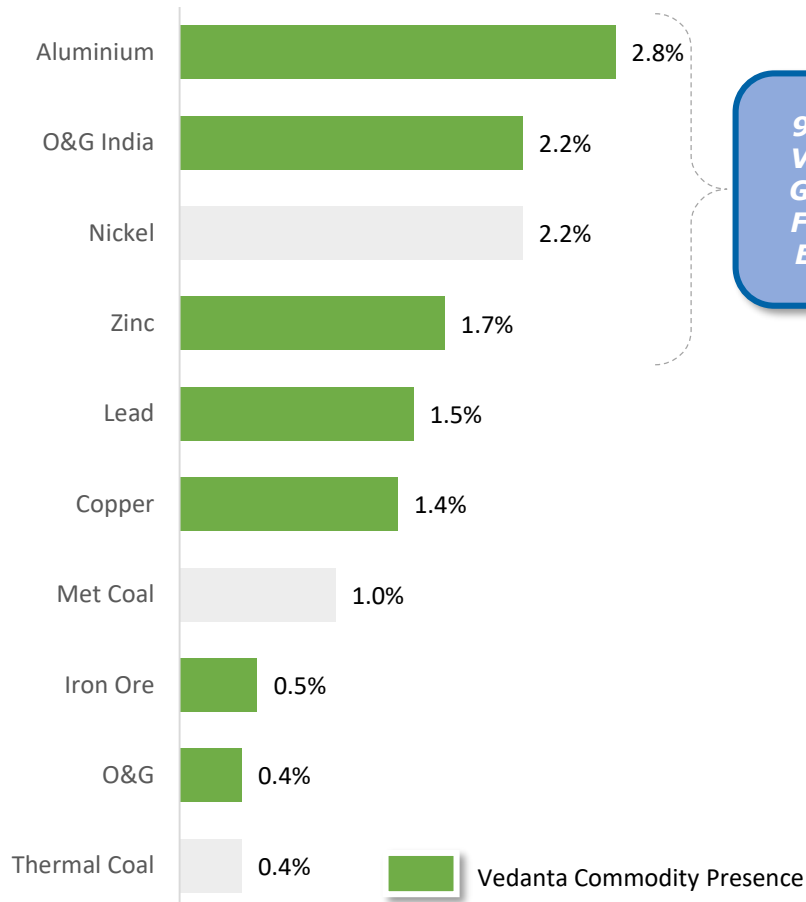
## Aluminium: Improving productivity



- Parameters defined for Category “A” pots based on power consumption, Fe content
- Increase in Category A pots from 74% in FY2018 to 84% in FY2019 through process efficiency and stabilization measures

## Vedanta's Focus is on the Right Commodities – Base Metals & Oil

### Global Demand CAGR 2019-30E



Source: Wood Mackenzie

### India mineral reserves ranking globally



Source: USGS Mineral Commodity Summaries (February 2019), OPEC Annual Statistical Bulletin 2018.

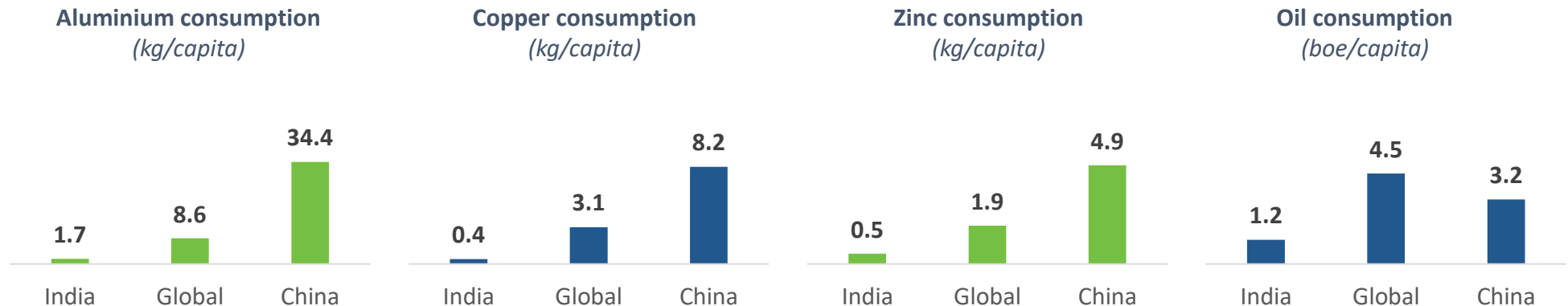
**Significant Presence in Commodities with Leading Global Demand Growth**



## India Key Metrics

<p><b>5.6 trillion</b> (2030) 2.8 trillion (2019)</p> <p><b>GDP (real)</b></p>	<p><b>3,699</b> (2030) 2,054 (2019)</p> <p><b>Per capita income (real)</b></p>	<p><b>40%</b> (2030) 34% (2019)</p> <p><b>Urbanisation</b></p>	<ul style="list-style-type: none"> <li>• National Mineral Policy (NMP)</li> <li>• Hydrocarbon Exploration and Licensing Policy (HELP)</li> <li>• Open Acreage Licensing Policy (OALP)</li> </ul> <p><b>Regulatory Reforms</b></p>
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## India demand potential



Source: Wood Mackenzie, IMF, IHS Markit, BMI, BP Energy Outlook 2019

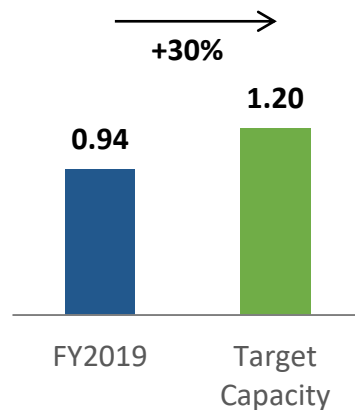
Note: All commodities demand correspond to primary demand

# Significant Production Ramp-up across all businesses

## Zinc India

- ✓ Expansion to 1.2 Mtpa
- ✓ Silver to 750-800 tonnes
- ✓ 1.35 Mtpa next phase expansion

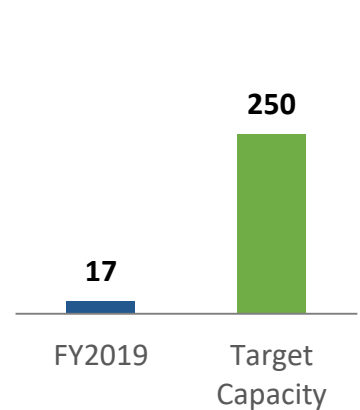
(mined metal Mtpa)



## Zinc International

- ✓ Gamsberg 250 kt (Full potential) in Phase-I
- ✓ Skorpion pit extension
- ✓ Gamsberg Phase II for 450 kt

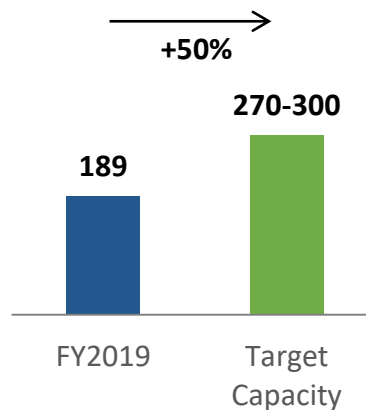
(Gamsberg mined metal kt)



## Oil & Gas

- ✓ Growth projects including:
  - Enhanced oil recovery
  - Tight Oil & Gas
  - Infill and upgrade projects
  - Exploration projects incl OALP

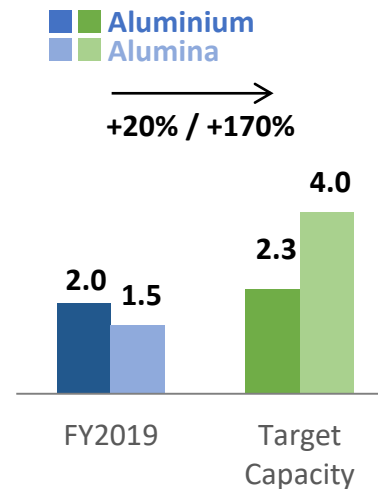
(kboepd)



## Aluminium

- ✓ Ramp-up of Jharsuguda II total smelter from 2.0 Mtpa to 2.3 Mtpa
- ✓ Ramp-up of Alumina from 1.5 Mtpa to 2.7 Mtpa to 4.0 Mtpa in the near to medium term

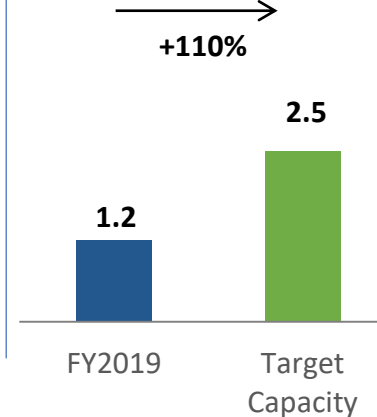
(kt)



## Steel

- ✓ Achieve 1.5 Mtpa production in FY20
- ✓ Expansion to 2.5 Mtpa
- ✓ Integration with Jharkhand Iron Ore Mine

(kt)





**Continue Focus on World Class ESG Performance**



**Augment Our Reserves & Resources Base**



**Delivering on Growth Opportunities**



**Optimise Capital Allocation & Maintain Strong Balance Sheet**



**Operational Excellence**

# Financial Update

**Arun Kumar**

Chief Financial Officer



EBITDA	FCF post capex	ND/EBITDA	Net Debt
₹ 24,012 cr	₹ 11,553 cr	1.1x	₹ 26,956 cr
Down 4% y-o-y	Up 47% y-o-y	Lowest among Indian peers	Higher 23% y-o-y

EBITDA Margin*	Contribution to Exchequer	ROCE <sup>^</sup>	Dividend Yield
30%	~₹ 42,400 cr	c. 13%	8.6%
Industry leading margin	Highest till date	Industry leading return	Best amongst Nifty

\* Excludes custom smelting at Copper India and Zinc-India operations

<sup>^</sup> ROCE is calculated as EBIT net of tax outflow divided by average capital employed

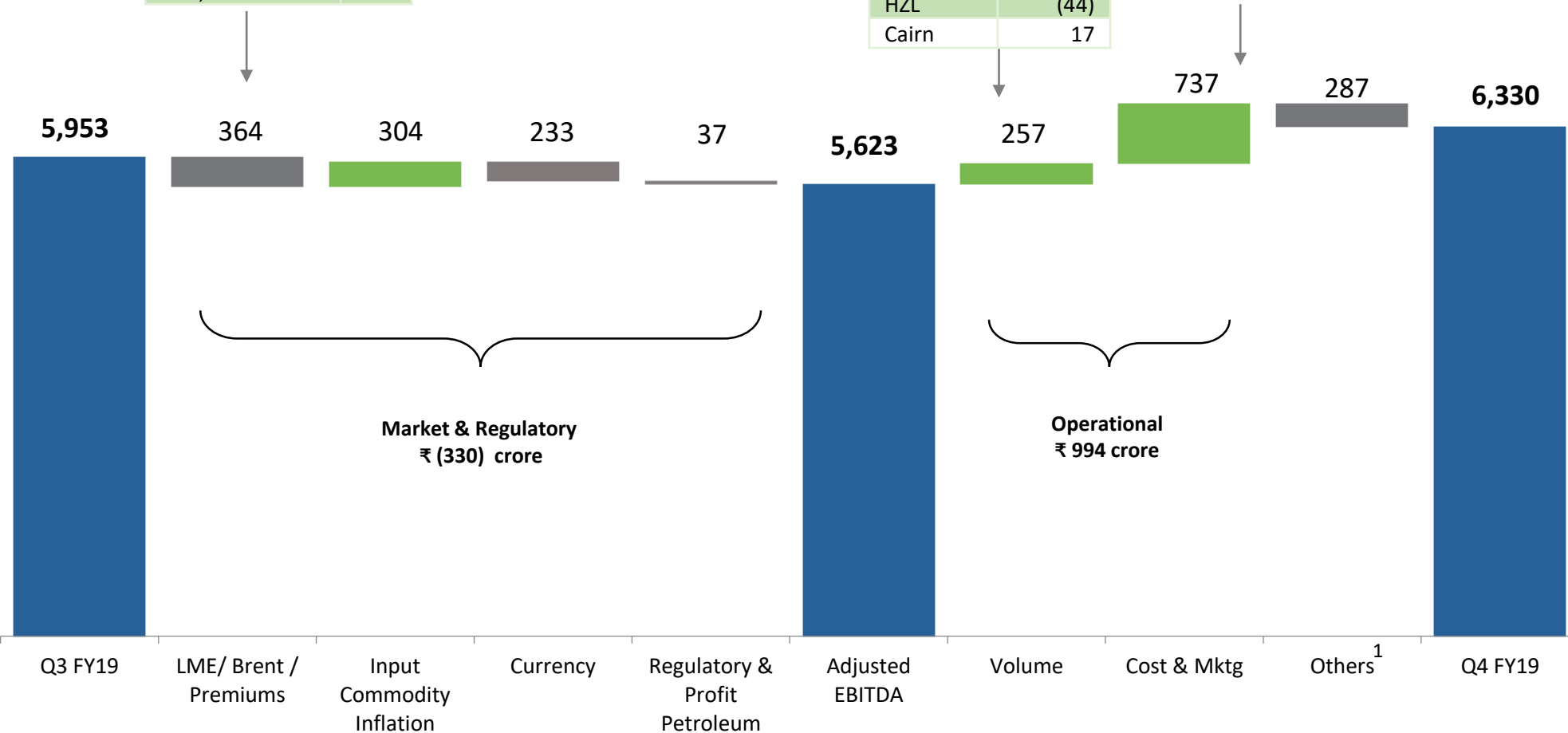
# EBITDA Bridge (Q3 FY2019 vs. Q4 FY2019)

(In ₹ crore)

Aluminum	(303)
Brent	(142)
Zinc, Lead & Silver	81

Iron-ore	148
ESL	87
ZI	76
Power	(32)
HZL	(44)
Cairn	17

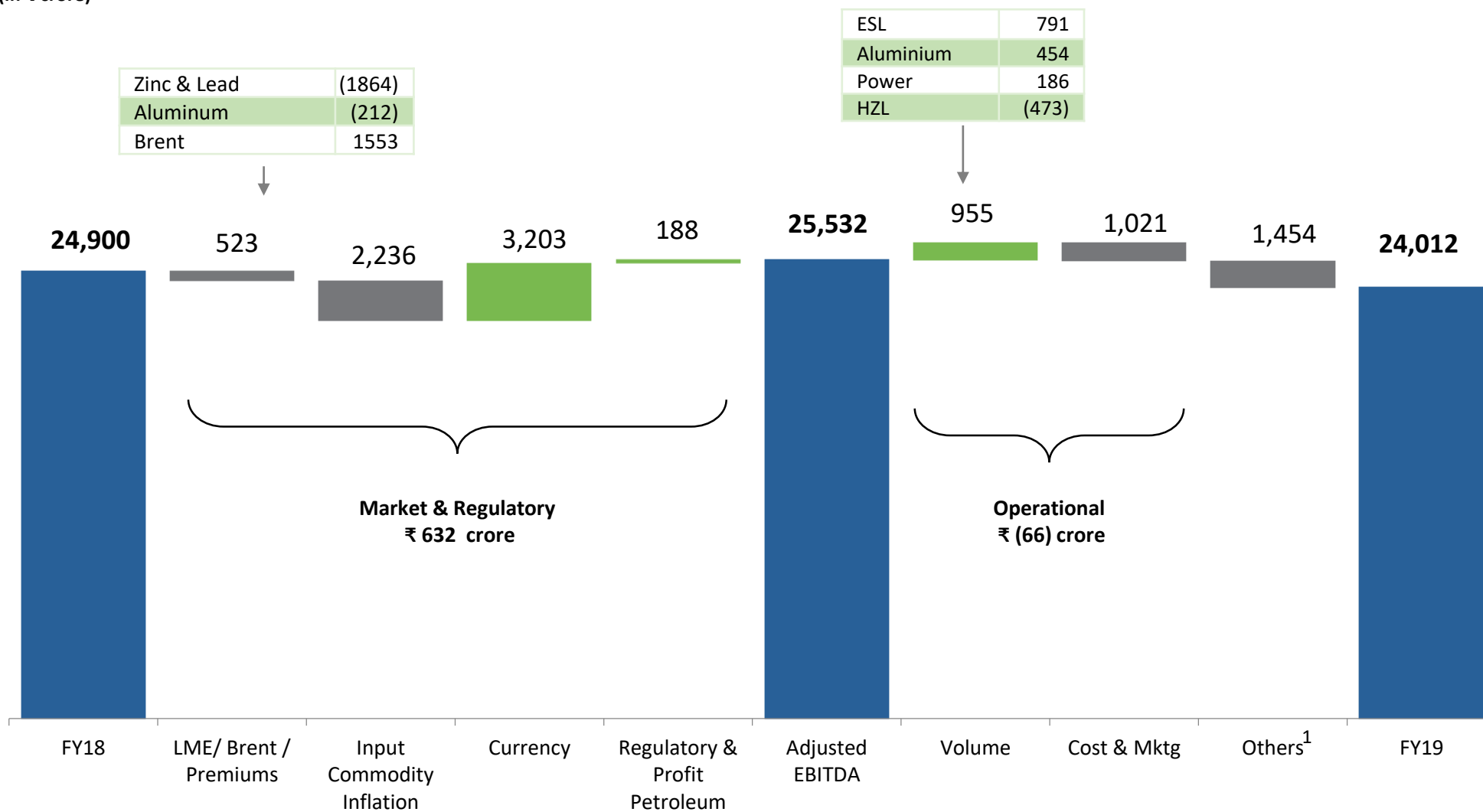
Aluminium	594
ZI	72
Cairn	27
Mktg & others	44



Note 1. Others mainly include impact of write back of liability pursuant to settlement agreement with a contractor at Balco in Q3 FY 2019.

# EBITDA Bridge (FY2018 vs. FY2019)

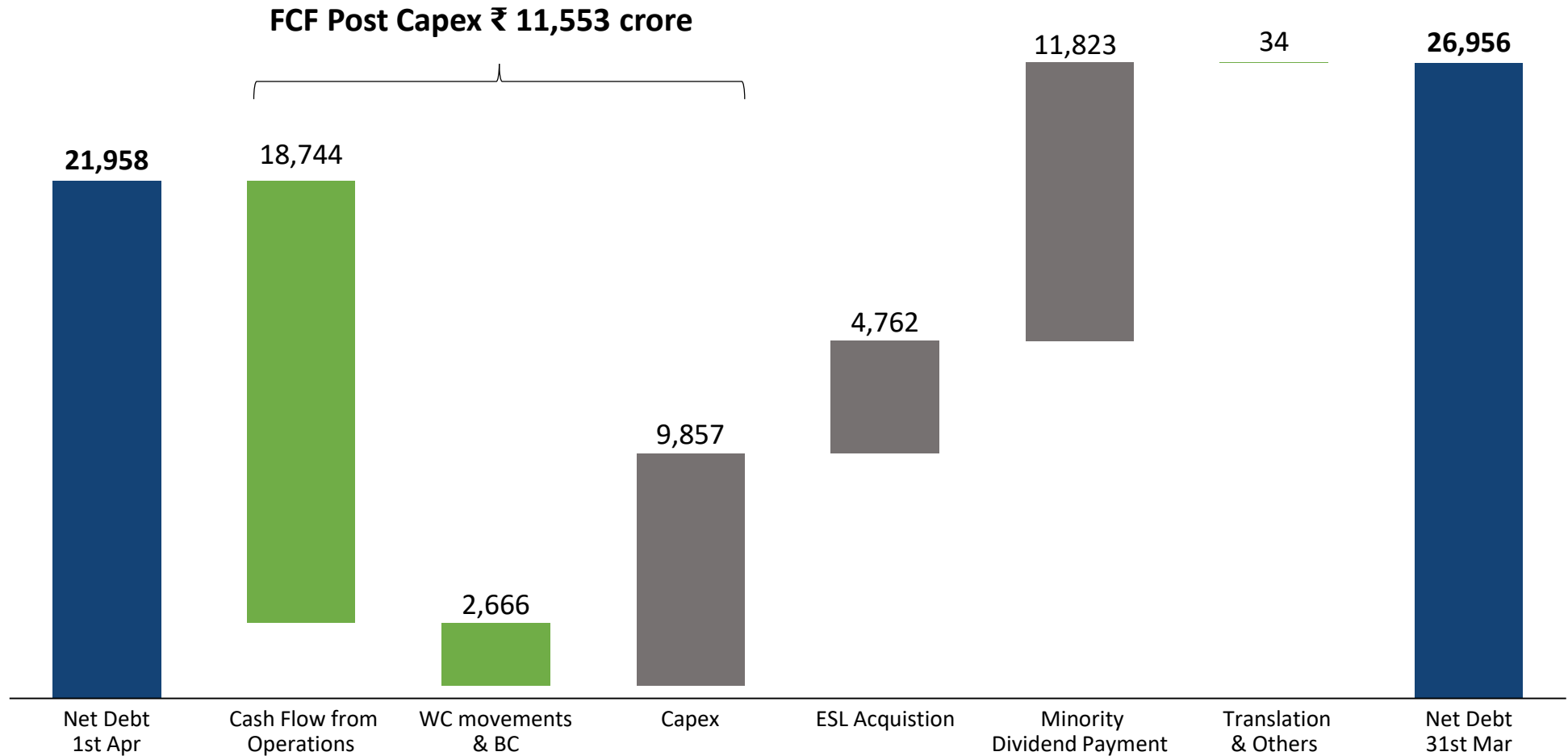
(In ₹ crore)



Note 1. Others mainly include impact of shutdown of Tuticorin Smelter.

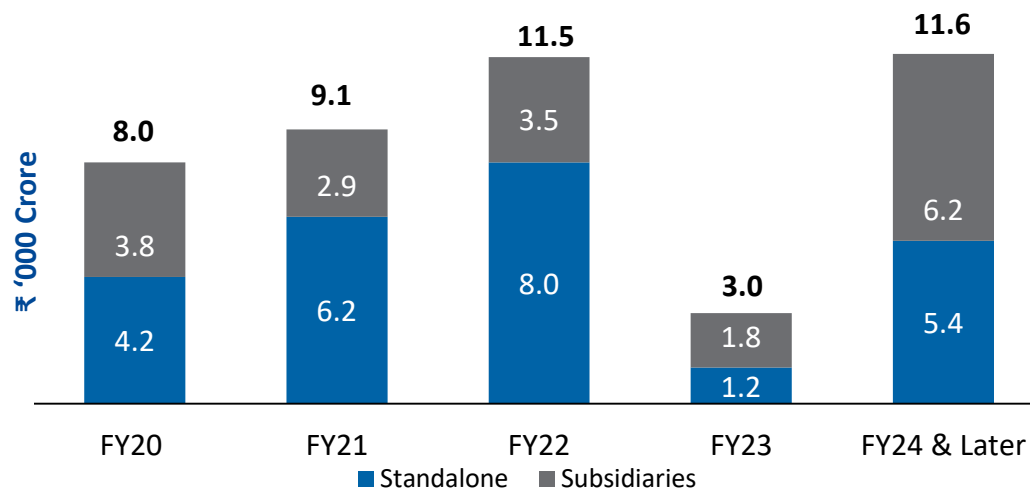
# Net Debt for FY2019

(In ₹ crore)





## Term Debt Maturities - ₹ 43,249 Crore (\$6.3 bn) (as of 31 Mar 2019)



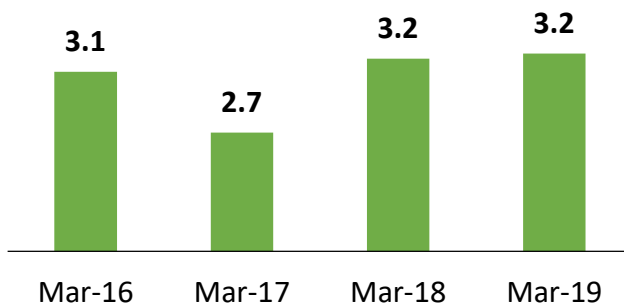
## Liquidity

- Cash and investments @ ₹ 39,269 cr rated Tier I by CRISIL;
- Undrawn line of credit ₹ c. 6,400 crore

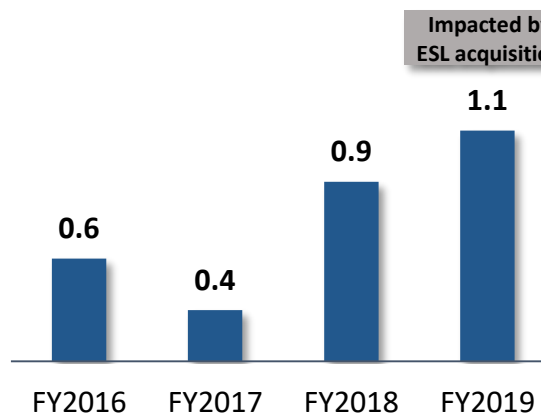
## Net Interest – Reducing q-o-q

- **Interest Income** – Returns ~7%.
- **Interest Expense** – Maintained ~8%
- Average term debt maturity maintained above 3 years

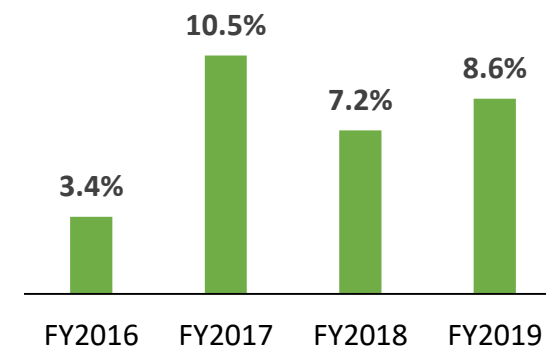
## Average Term Debt Maturity (years)



## Net Debt / EBITDA



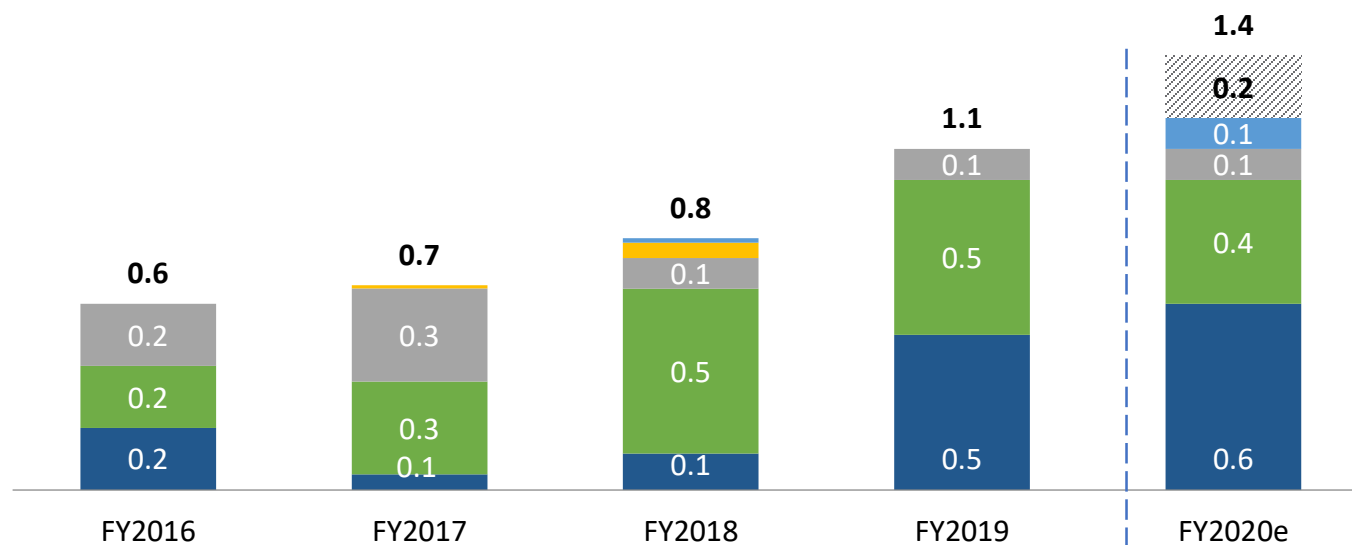
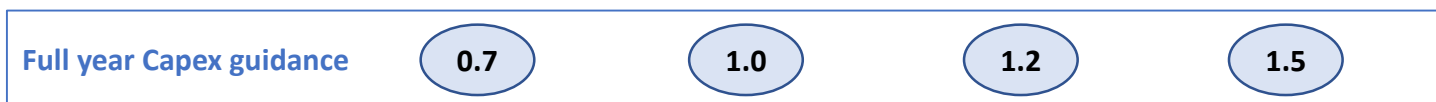
## Dividend Yield



# Self funded Capex Delivering Superior Returns

## Growth CAPEX Profile, \$bn

■ Oil & Gas ■ Zinc ■ Al & Power ■ Copper ■ Other ■ Optionality



FCF pre capex, \$bn	2.4	2.8	2.0	2.8
ROCE <sup>1</sup>	~5%	~15%	~17%	~13%

1. ROCE is calculated as EBIT net of tax outflow divided by average capital employed.



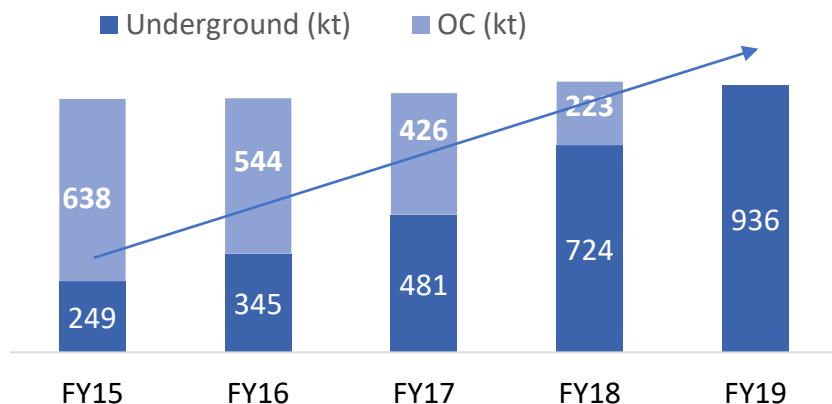
VEDANTA LIMITED  
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FY2019

# Business Update

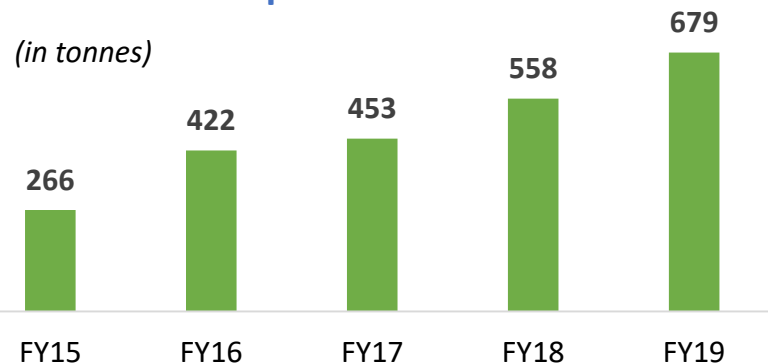
**Venkat**

Chief Executive Officer

## Record Underground Mine Performance



## Ranked 9<sup>th</sup> in the elite club of silver producers



## FY2019

Record production of

- Mined metal from UG mines, up 29% y-o-y
- Silver at 679 tonnes, up 22% y-o-y
- Lead metal at 198kt, up 18% y-o-y
- Zinc COP ex royalty at \$1,008/t
- Commissioned Various Projects in Q4 - SK Mine shaft, Zawar 2 Mtpa Mill, Rampura Agucha 2<sup>nd</sup> Paste fill Plant

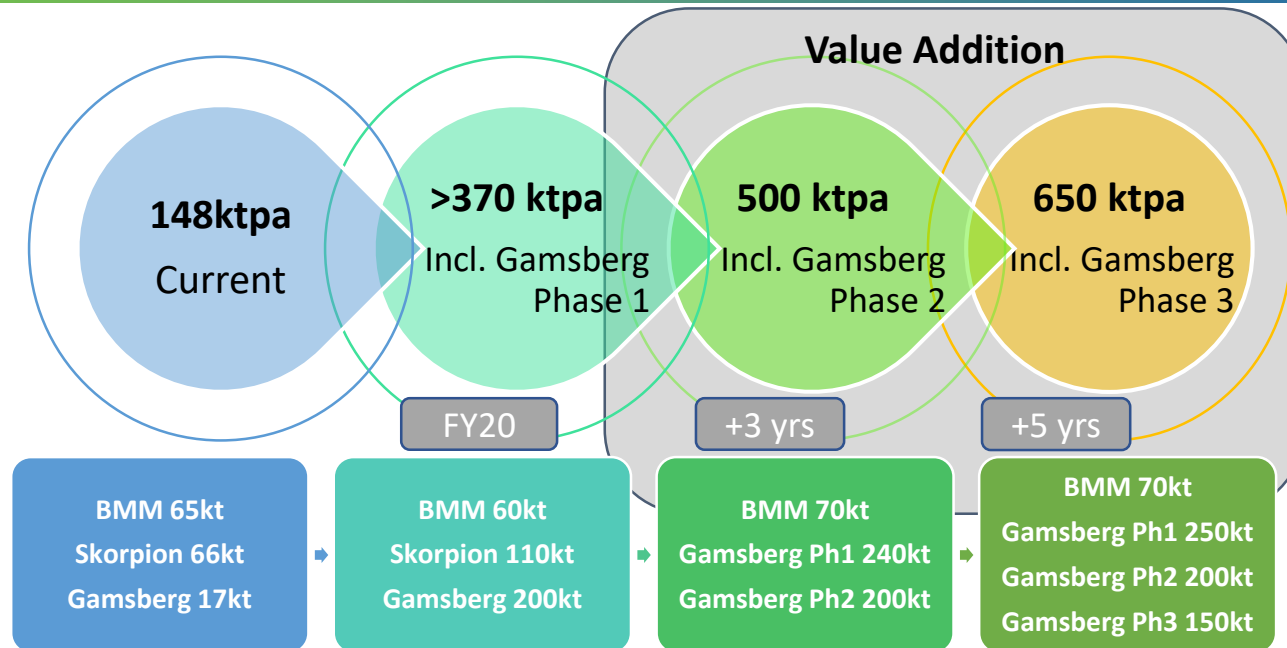
**On Track to achieve design capacity of 1.2 Mtpa by end of Q2 FY20**

Q1 FY20

- 2<sup>nd</sup> Paste Fill plant at SK Mine
- Fumer Plant commissioning

Q2 FY20

- RA Mine Shaft
- Zawar dry tailing plant



### Skorpion & Black Mountain

- Plan to increase production by ramping up Pit 112
- FY2019:
  - **Skorpion:** Production of 66kt
  - **BMM:** Production of 65kt
  - CoP (BMM + Skorpion) at \$1,937/t

### Gamsberg

**Gamsberg in operation and full ramp up by H1 FY20**

- Project completed within target capex of \$400 mn
- Commercial Production achieved in March'19
- Successful ore blending to deliver quality product
- Production of 17kt\* in FY19 at a CoP of \$1,474/t

\* Including trail run production of 9.6kt

## 10 Year PSC Extension

Approval for Rajasthan & Ravva PSC Extension as per GoI policy, subject to certain conditions

## \$ 3.2bn Gross Capex

Growth Capex driven through Integrated Partnership model with global oil field service companies

## 11 Developmental Rigs

99 wells drilled and 33 hooked up

## 90 mmscfd

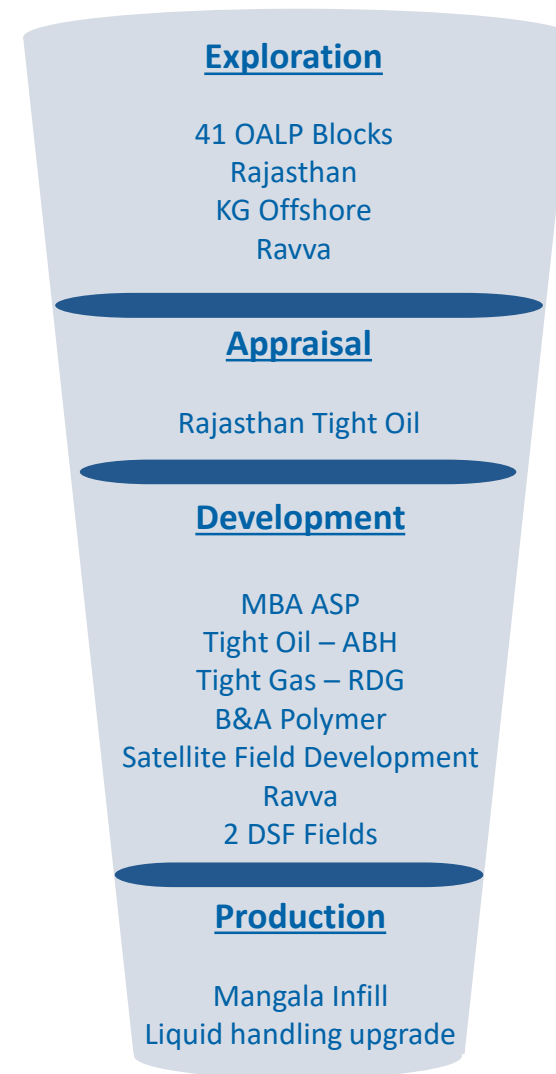
RDG early gas production facility commissioned, ramp up commenced

## 41 OALP Blocks

Global tender issued inviting bids for end-to-end integrated contracts

## 2 New Onshore Block

Hazarigaon in Assam and Kaza in KG block contract signed under Discovered Small Fields (DSF) Bid Round II in March 2019



## Development Projects

- Rich project portfolio comprising of enhanced oil recovery, tight oil and tight gas
- Focus on cutting edge technology enabling world class recovery rates
- Projects generate IRR of > 20% at oil price of \$ 40/bbl
- Number of Wells from 500+ to 900+
- Gas mix increasing to > 15%

## Exploration Projects

- Gross capex of \$400mn in the prolific basins of Barmer, Ravva & KG offshore
- Oil discovery in 2<sup>nd</sup> well at KG Basin
- Evaluation of both the discoveries in KG Basin under progress
- Integrated contracts awarded for execution in Rajasthan & Ravva

## OALP & DSF

- 41 blocks in OALP enhanced acreage from ~ 5,000 sq. km to ~ 55,000 sq. km
- Global tender issued inviting bids for end-to-end integrated contracts
- Awarded 2 onshore fields under DSF Bid Round II

**Increased activity levels with disciplined low cost operating model leading to higher reserves and production**

# Oil & Gas: Solidifying Long-Standing Reputation of Adopting Cutting Technology to foster world class recovery rates

Resources



Reserves



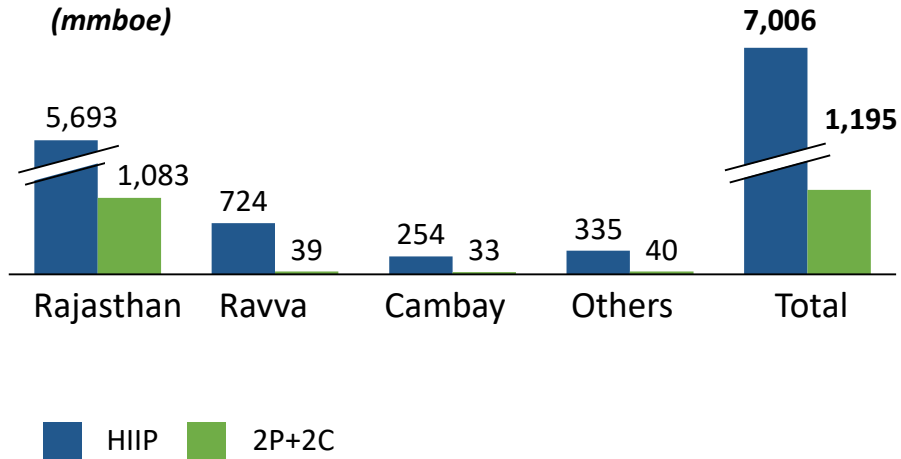
Production

## World Class Resource Base

(As at March 2019)

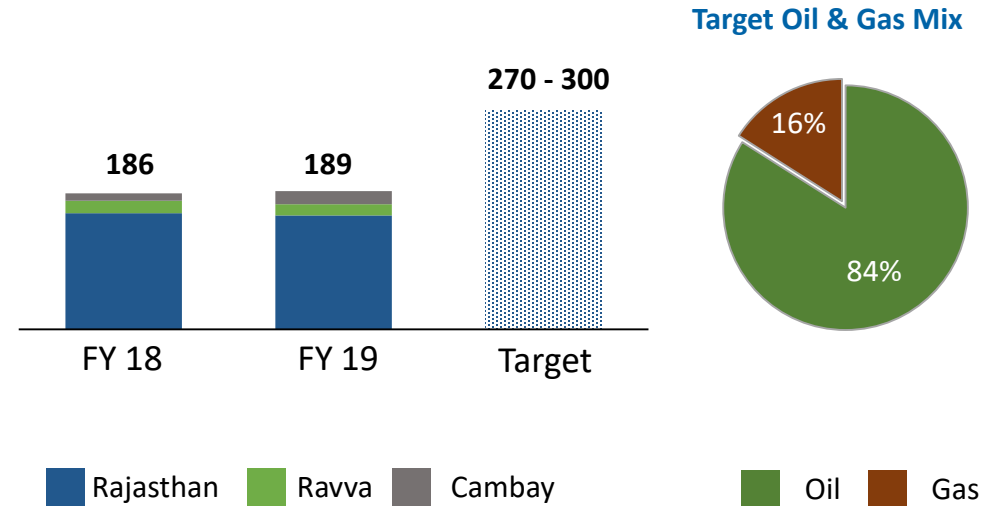
- Hydrocarbon Initially in Place of 7 bn boe
- 2P Reserves & 2C Resources of 1.2 bn boe

(mmboe)



## Production being ramped up – Increasing Gas Mix

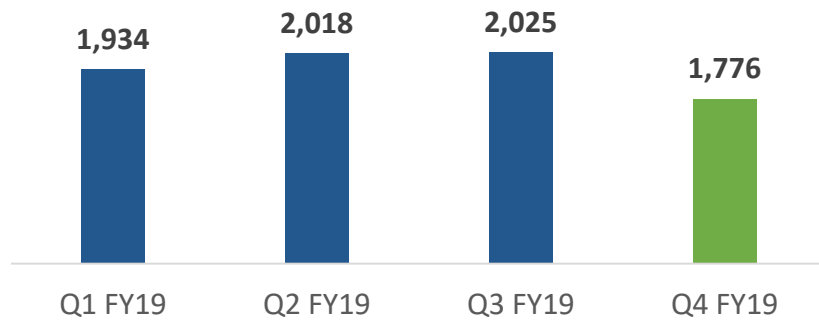
Gross Average Volume (kboepd)





# Aluminium: Significant progress on Strategic levers

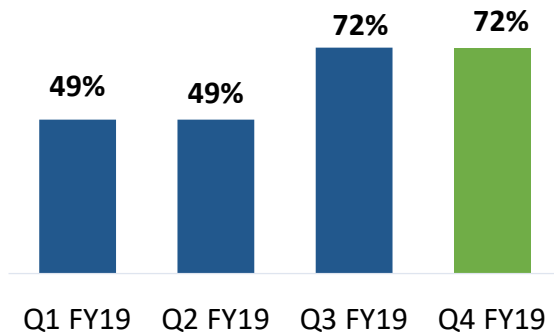
Mar'19 COP at \$ 1,700/t



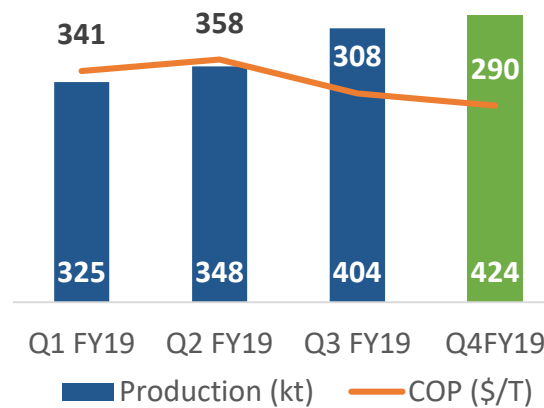
FY2019

- Structural Reduction in Aluminium Cost
- Achieved Alumina Peak run rate of 1.8 Mtpa during the year
- Increased Local Bauxite supply met 30% of requirement
- Ramped Up Lanjigarh volume and local Bauxite reduced Alumina cost

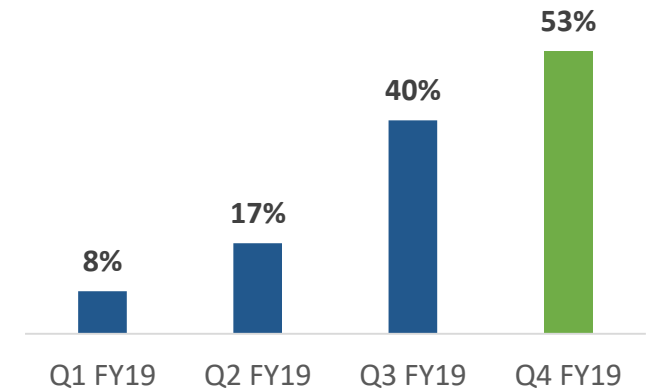
Coal Secured %

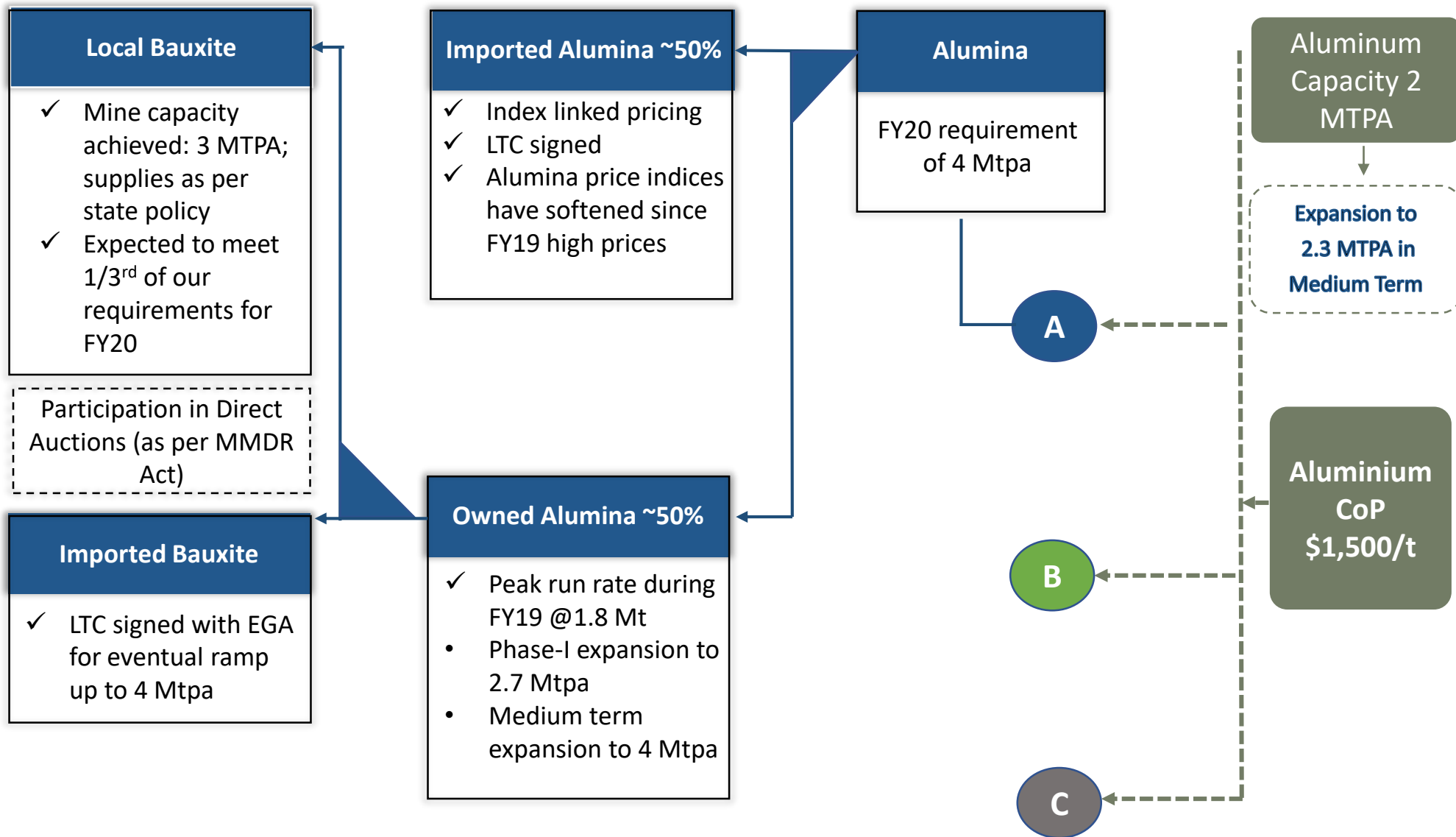


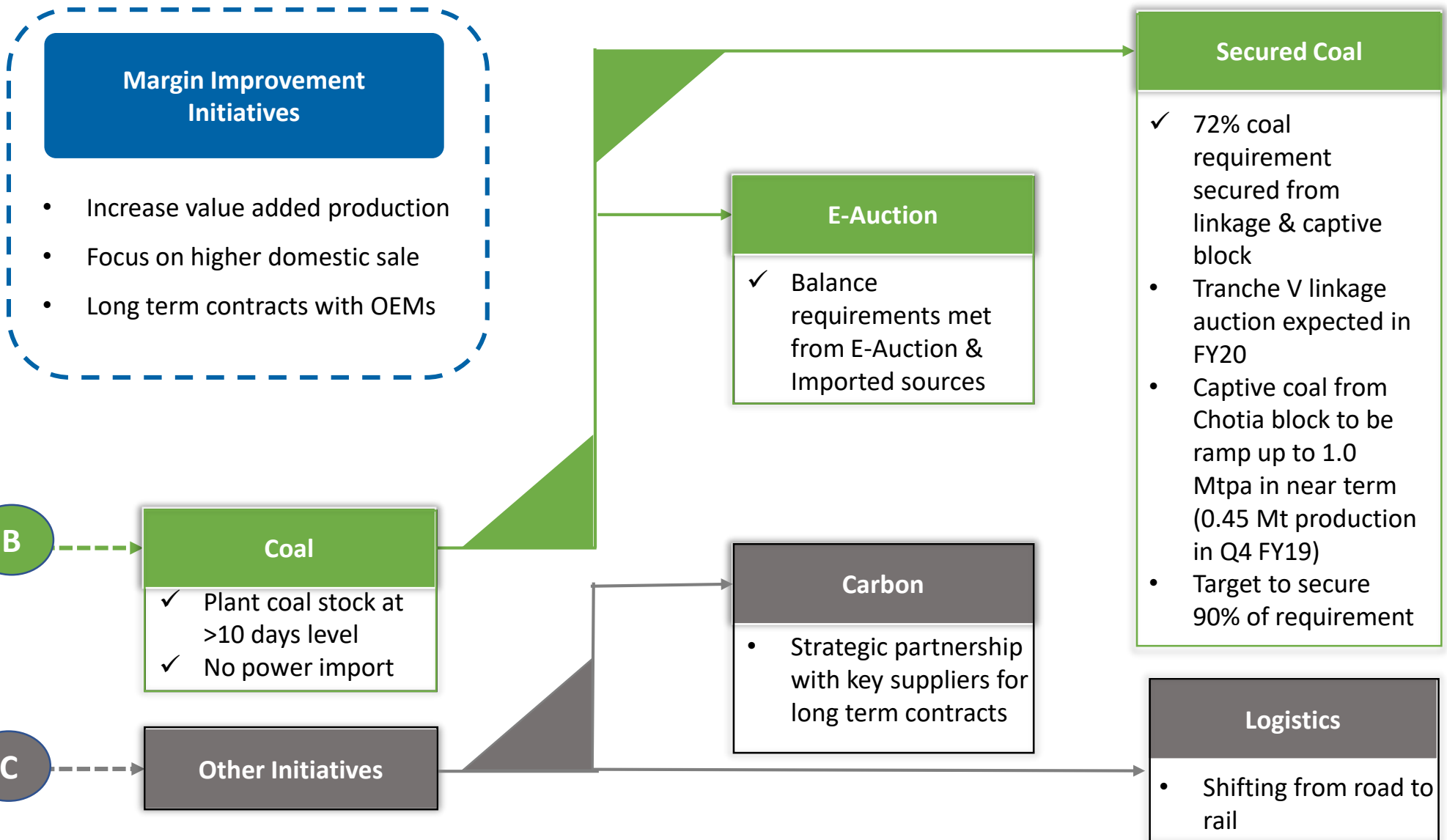
Alumina Production & COP



Local Bauxite Sourcing







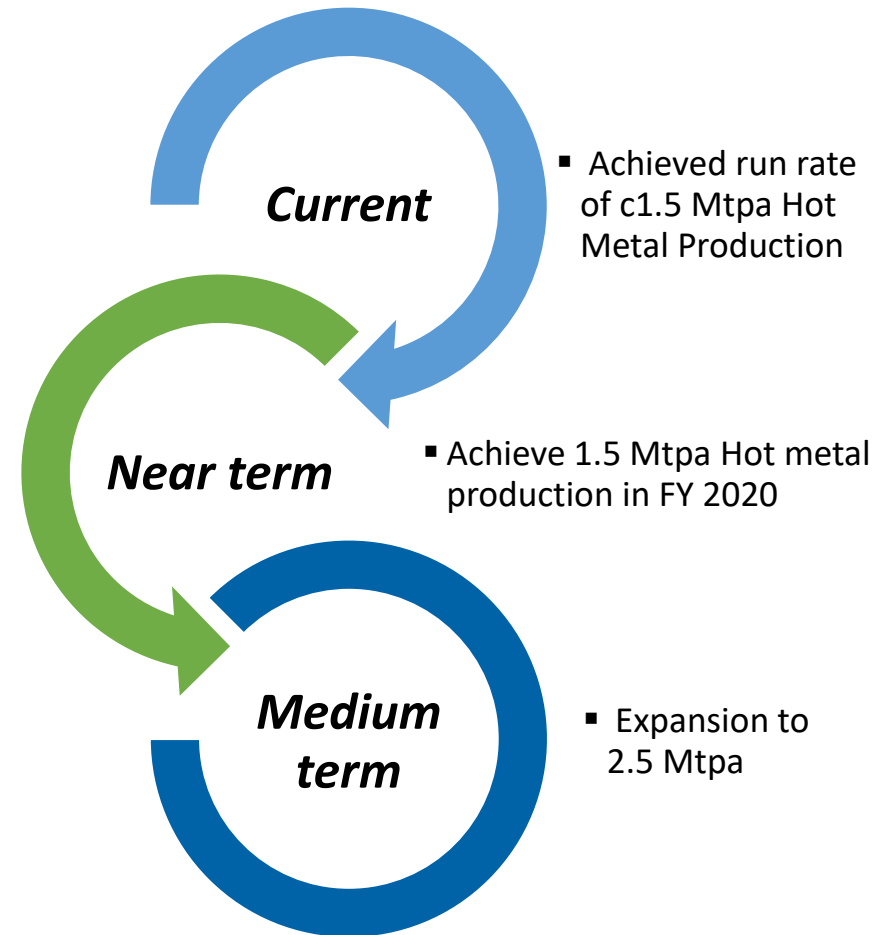
## FY2019

- Record production of 1,199kt; up 17% y-o-y
- Ever highest sales of 1,185kt; up 15% y-o-y
- Industry leading margin at \$115/t up 116% y-o-y
- VAP sale at 85%, up 8% y-o-y

## Growth Plan


- Ramp up to design capacity of 2.5 Mtpa
- Diversified product mix – wire rod, rebar, DI pipe, billet, pig iron
- Integration with Jharkhand Iron ore mines

## Asset turnaround strategy



Turnaround Performance through focused cost control, operational and commercial excellence


1  Large Diversified Asset Base with an Attractive Commodity Mix

3  Well-Invested Assets Driving Cash Flow Growth

5  Strong Financial Profile

2  Ideally Positioned to Capitalise on Favourable Geographic Presence

4  Operational Excellence and Technology Driving Efficiency and Sustainability

6  Proven Track Record

# Appendix



Segment	FY20 Production	FY20 CoP
<b>Zinc India</b>	Mined Metal and Finished Metal: c 1.0 Mtpa Silver: 750 - 800 tonnes	< \$1,000/t excluding royalty
<b>Zinc International</b>	Skorpion and BMM: >170kt Gamsberg: 180 - 200kt	ZI COP (excl Gamsberg) : \$1,400/t Gamsberg: c \$1,000/t
<b>Oil &amp; Gas</b>	Gross Volume: 200-220 kboepd	Opex: ~ \$7.5/boe
<b>Aluminium</b>	Alumina: 1.7-1.8 Mtpa Aluminium: 1.9 – 1.95 Mtpa	COP*: \$ 1,725 – 1,775/t
<b>Power</b>	TSPL plant availability: >80%	
<b>Iron Ore</b>	Karnataka (WMT): 4.5 Mtpa Goa: To be updated on re-start of operations	
<b>ESL</b>	Hot Metal – c 1.5 Mtpa	Margin: \$130 - \$140/t
<b>Copper - India</b>	To be updated on re-start of operations	

*\*Hot Metal COP*

## Depreciation & Amortization

- Higher FY vs FY on account of non cash impairment reversal and change in reserve estimates in Q4 FY 2018 at Oil and Gas business , higher ore production at Zinc businesses and acquisition of ESL.
- Higher in Q4 FY19 due to change in reserve estimates at Oil and Gas business in Q4 FY 2018.

## Finance Cost

- Higher in FY19 and Q4 due to borrowing for ESL Acquisition, temporary borrowing at Zinc India, higher interest rates in line with market trends offset by higher interest capitalisation.

## Investment income

- Higher in FY19 and Q4 primarily on account of MTM gains on treasury investment made by overseas subsidiary.

## Taxes

- FY 19 tax rate of 28% (before exceptional & DDT) , in line with earlier guidance.

In ₹ Crore	FY'19	FY'18	Q4 FY'19	Q4 FY'18
Revenue from operations	90,901	92,011	23,092	27,311
Other operating income	1,147	912	376	319
EBITDA	24,012	24,900	6,330	7,767
Depreciation & amortization	(8,192)	(6,283)	(2,258)	(1,683)
Finance Cost	(5,689)	(5,112)	(1,401)	(1,205)
Investment Income	3,618	3,205	1,599	917
Exchange gain/(loss)	(509)	(38)	(166)	(73)
Exceptional items - credit/(expense)	320	2,897	-	2,869
Taxes	(3,750)	(5,339)	(886)	(2,403)
Taxes – DDT	-	1,536	-	1,536
Taxes on exceptional items	(112)	(2,074)	-	(2,050)
<b>Profit After Taxes (before exceptional items and DDT)</b>	<b>9,490</b>	<b>11,333</b>	<b>3,218</b>	<b>3,320</b>
Profit After Taxes (before exceptional items)	9,490	12,869	3,218	4,856
Profit After Taxes	9,698	13,692	3,218	5,675
<b>Attributable profit (before exceptional items and DDT)</b>	<b>6,857</b>	<b>8,025</b>	<b>2,615</b>	<b>2,420</b>
Attributable profit (before exceptional items)	6,857	9,561	2,615	3,956
Attributable PAT	7,065	10,342	2,615	4,802
Minorities % (before exceptional items and DDT)	28%	30%	19%	26%

Note: Previous period figures have been regrouped or re-arranged wherever necessary to conform to the current period's presentation



Capex in Progress	Status	Capex <sup>3</sup> (\$mn)	Spent up to 31 Mar'18 <sup>4</sup>	Spent in FY2018 <sup>4</sup>	Unspent as at 31 Mar'19 <sup>5</sup>
<b>Cairn India</b> <sup>1</sup> – Mangala Infill, Liquid handling, Bhagyam & Aishwariya EOR, Tight Oil & Gas etc		2,481	183	469	1,829
<b>Aluminium Sector</b>					
Jharsuguda 1.25mtpa smelter	Line 3: Fully capitalised Line 4: Fully Capitalised Line 5: Six Section capitalised	2,920	2,846	69	5
<b>Zinc India</b>					
1.2mtpa mine expansion	Phase-wise by FY2020	2,076	1,265	304	507
Others		218	64	60	94
<b>Zinc International</b>					
Gamsberg Mining Project <sup>2</sup>	Completed Capitalisation	400	241	123	36
<b>Copper India</b>					
Tuticorin Smelter 400ktpa	Project is under Force Majeure	717	189	9	519
<b>Avanstrate</b>					
Furnace Expansion and Cold Repair	Completed	48	3	38	7
<b>Capex Flexibility</b>					
<b>Metals and Mining</b>					
Lanjigarh Refinery (Phase II) – 5mtpa	Under evaluation	1,570	836	21	713
Zinc India (1.2 Mtpa to 1.35mtpa mine expansion)	Subject to Board approval	698	-	1	697
Skorpion Refinery Conversion	Currently deferred till Pit 112 extension	156	14	-	142

1. Capex approved for Cairn represents Net capex, however Gross capex is \$3.2 bn.

2. Capex approved for Gamsberg \$400 mn excludes interest during construction.

3. Is based on exchange rate at the time of approval.

4. Is based on exchange rate at the time of incurrence

5. Unspent capex represents the difference between total capex approved and cumulative spend as on 31<sup>st</sup> March 2019.

Company	31 Mar 2019 (₹ Crore)			31 Mar 2018 (₹ Crore)		
	Debt	Cash & LI	Net Debt	Debt	Cash & LI	Net Debt
Vedanta Limited Standalone	42,204	8,269	33,935	40,713	7,132	33,581
Cairn India Holdings Limited <sup>1</sup>	2,624	8,326	(5,702)	2,773	5,653	(2,880)
Zinc India	2,538	19,512	(16,974)	-	22,189	(22,189)
Zinc International	415	926	(511)	-	625	(625)
BALCO	4,416	436	3,980	4,915	60	4,855
Talwandi Sabo	8,665	262	8,403	8,651	23	8,628
Vedanta Star Limited <sup>2</sup>	3,375	31	3,344	-	-	-
Others <sup>3</sup>	1,988	1,507	481	1,107	519	588
<b>Vedanta Limited Consolidated</b>	<b>66,225</b>	<b>39,269</b>	<b>26,956</b>	<b>58,159</b>	<b>36,201</b>	<b>21,958</b>

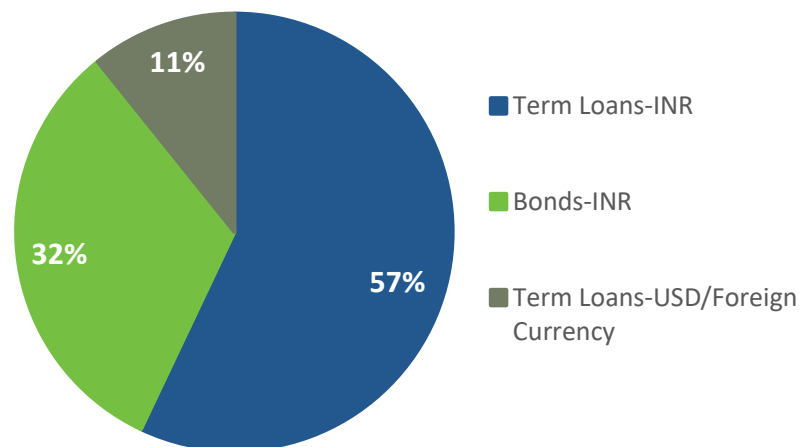
Notes: Debt numbers are at Book Value and excludes inter-company eliminations.

1. Cairn India Holdings Limited is a wholly owned subsidiary of Vedanta Limited which holds 50% of the share in the RJ Block

2. Vedanta Star limited, 100% subsidiary of VEDL which owns 90% stake in ESL

3. Others includes MALCO Energy, CMT, VGCB, Electrosteel, Fujairah Gold, Vedanta Limited's investment companies and ASI.

## Diversified Funding Sources for Term Debt of \$6.3bn (as of 31<sup>st</sup> Mar 2019)



- Term debt of \$3.6bn at Standalone and \$2.6bn at Subsidiaries, total consolidated \$6.3bn

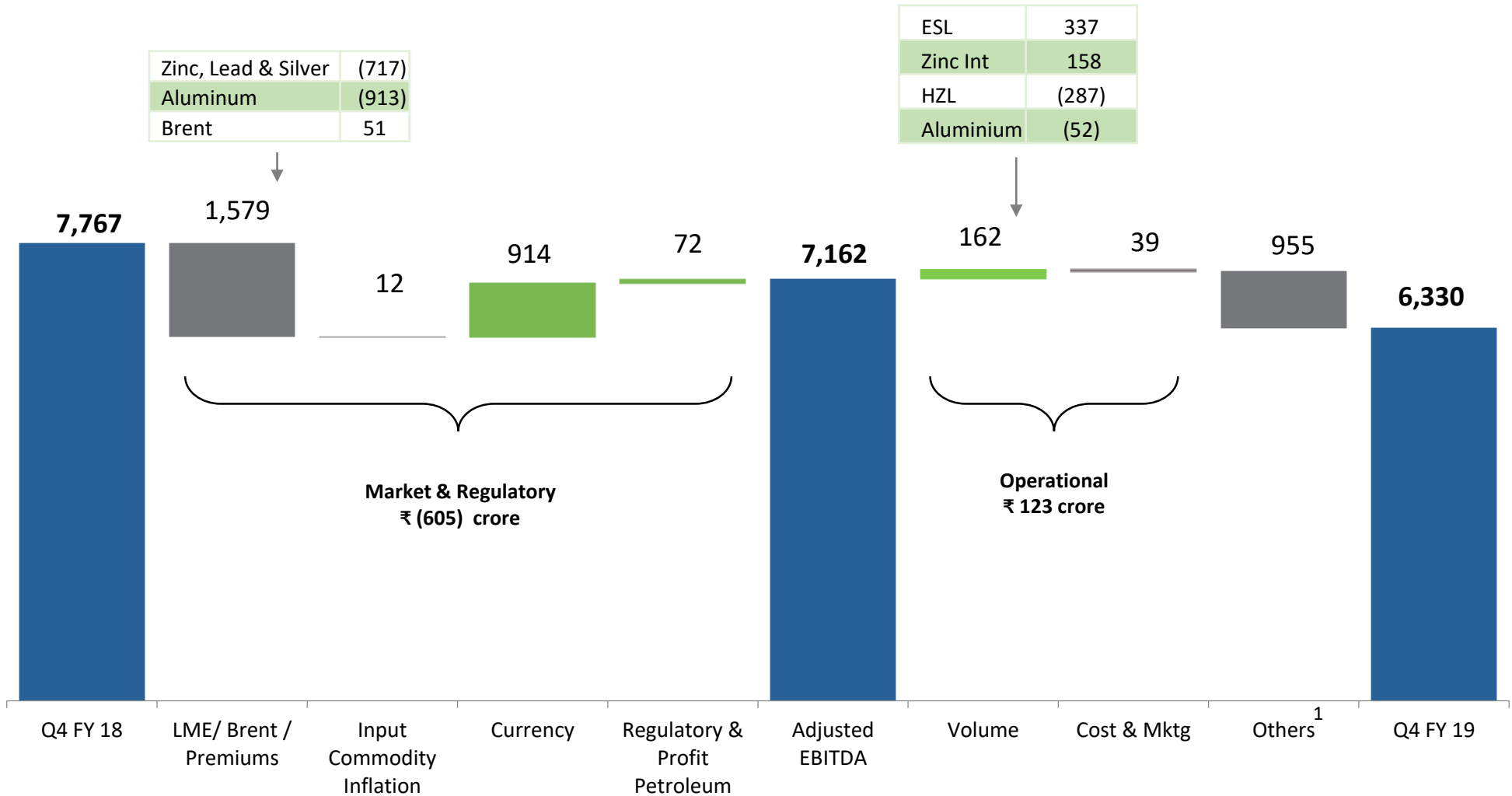
Note: USD-INR: ₹ 69.1713 at 31 Mar 2019

## Debt Breakdown (as of 31 Mar 2019)

Debt breakdown as of 31 March 2019	(in \$bn)	(₹ in 000' Cr)
Term debt	6.3	43.2
Working capital	0.6	3.9
Short term borrowing	2.8	19.1
<b>Total consolidated debt</b>	<b>9.6</b>	<b>66.2</b>
<b>Cash and Liquid Investments</b>	<b>5.7</b>	<b>39.3</b>
Net Debt	3.9	27.0
<b>Debt breakup (\$9.6bn)</b>		
- INR Debt		92%
- USD / Foreign Currency Debt		8%

# EBITDA Bridge (Q4 FY 2019 vs. Q4 FY 2018)

(In ₹ crore)



Note 1. Others mainly include impact of shutdown of Tuticorin smelter and pot relining accounting change in Q4 FY2018.

# Segment Summary – Zinc India

Production (in '000 tonnes, or as stated)	Q4			Q3	Full year		
	FY 2019	FY 2018	% change YoY	FY2019	FY 2019	FY 2018	% change YoY
<b>Mined metal content</b>	<b>245</b>	<b>255</b>	<b>(4%)</b>	<b>247</b>	<b>936</b>	<b>947</b>	<b>(1%)</b>
Underground mines	245	197	24%	247	936	724	29%
Open cast mines	-	57	-	-	-	223	-
<b>Integrated metal</b>							
Refined Zinc – Integrated	175	206	(15%)	188	696	791	(12%)
Refined Lead – Integrated <sup>1</sup>	53	50	6%	54	198	168	18%
Refined Saleable Silver - Integrated (in tonnes) <sup>2</sup>	191	170	13%	178	679	558	22%
<b>Financials (In ₹ crore, except as stated)</b>							
Revenue	5,354	6,151	(13%)	5,467	20,656	22,050	(6%)
EBITDA	2,777	3,622	(23%)	2,839	10,600	12,254	(13%)
Zinc CoP without Royalty (₹ /MT)	69,600	59,600	17%	71,900	70,400	63,600	11%
Zinc CoP without Royalty (\$/MT)	987	925	7%	997	1,008	976	3%
Zinc CoP with Royalty (\$/MT)	1,373	1,373	-	1,332	1,381	1,365	1%
Zinc LME Price (\$/MT)	2,702	3,421	(21%)	2,631	2,743	3,057	(10%)
Lead LME Price (\$/MT)	2,036	2,523	(19%)	1,964	2,121	2,379	(11%)
Silver LBMA Price (\$/oz)	15.6	16.8	(7%)	14.5	15.4	16.9	(9%)

1. Excludes captive consumption of 1,403 tonnes in Q4 FY 2019 vs 1,570 tonnes in Q4 FY 2018 & 1,554 tonnes in Q3 FY 2019. For FY2019 it was 6,534 MT as compared to 6,946 MT in FY2018
2. Excludes captive consumption of 7.5MT in Q4 FY 2019 and 8.2 MT in Q4 FY 2018 & 8.1 MT in Q3 FY 2019. For FY2019 it was 34.2 MT as compared with 36.4 MT in FY2018

# Segment Summary – Zinc International

Production (in'000 tonnes, or as stated)	Q4			Q3	Full year		
	FY 2019	FY 2018	% change YoY	FY2019	FY 2019	FY 2018	% change YoY
Refined Zinc – Skorpion	21	22	(5%)	20	66	84	(22%)
Mined metal content- BMM	19	13	41%	18	65	72	(10%)
Mined metal content- Gamsberg*	14	-	-	3	17	-	-
<b>Total</b>	<b>54</b>	<b>35</b>	<b>53%</b>	<b>41</b>	<b>148</b>	<b>157</b>	<b>(5%)</b>
<b>Financials (In ₹ Crore, except as stated)</b>							
Revenue	1,002	822	22%	622	2,738	3,446	(21%)
EBITDA	391	259	51%	206	698	1,415	(51%)
CoP – (\$/MT)	1,488	1,976	(25%)	1,757	1,912	1,603	19%
Zinc LME Price (\$/MT)	2,702	3,421	(21%)	2,631	2,743	3,057	(10%)
Lead LME Price (\$/MT)	2,036	2,523	(19%)	1,964	2,121	2,379	(11%)

\* Including trial run production of 6.6 kt in Q4 FY 19, 3.0 kt in Q3 FY 19 and 9.6 kt in FY 19.

# Segment Summary – Oil & Gas

OIL AND GAS (boepd)	Q4			Q3	Full year		
	FY 2019	FY 2018	% change YoY	FY2019	FY 2019	FY 2018	% change YoY
<b>Average Daily Gross Operated Production (boepd)</b>	<b>187,063</b>	<b>190,172</b>	<b>(2%)</b>	<b>187,191</b>	<b>188,784</b>	<b>185,587</b>	<b>2%</b>
Rajasthan	152,825	162,357	(6%)	151,574	155,903	157,983	(1%)
Ravva	15,067	16,271	(7%)	16,775	14,890	17,195	(13%)
Cambay	19,170	11,543	66%	18,842	17,991	10,408	73%
<b>Average Daily Working Interest Production (boepd)</b>	<b>118,135</b>	<b>121,929</b>	<b>(3%)</b>	<b>117,521</b>	<b>119,798</b>	<b>118,620</b>	<b>1%</b>
Rajasthan	106,978	113,650	(6%)	106,102	109,132	110,588	(1%)
Ravva	3,390	3,661	(7%)	3,774	3,350	3,869	(13%)
Cambay	7,668	4,617	66%	7,537	7,196	4,163	73%
KG-ONN 2003/1	99	-	-	108	119	-	-
<b>Total Oil and Gas (million boe)</b>							
Oil & Gas- Gross operated	16.8	17.1	(2%)	17.2	68.9	67.7	2%
Oil & Gas-Working Interest	10.6	11.0	(3%)	10.8	43.7	43.3	1%
<b>Financials (In ₹ crore, except as stated)</b>							
Revenue	3,175	2,749	15%	3,350	13,223	9,536	39%
EBITDA	1,805	1,509	20%	1,973	7,656	5,429	41%
Average Oil Price Realization (\$ / bbl)	62.1	59.0	5%	65.1	66.0	50.7	30%
Brent Price (\$/bbl)	63.1	66.8	(6%)	68.8	70.4	57.5	22%

OIL AND GAS (boepd)	Q4			Q3	Full year		
	FY 2019	FY 2018	% change YoY	FY2019	FY 2019	FY 2018	% change YoY
<b>Average Daily Production</b>							
Gross operated	187,063	190,172	(2%)	187,191	188,784	185,587	2%
Oil	172,859	181,612	(5%)	176,997	178,207	177,678	-
Gas (Mmscfd)	85	51	66%	61	64	47	34%
Non operated- Working interest	99	-	-	108	119	-	-
Working Interest	118,135	121,929	(3%)	117,521	119,798	118,620	1%
<b>Rajasthan (Block RJ-ON-90/1)</b>							
Gross operated	152,825	162,357	(6%)	151,574	155,903	157,983	(1%)
Oil	143,975	157,592	(9%)	146,534	149,964	154,307	(3%)
Gas (Mmscfd)	53	29	86%	30	36	22	61%
Gross DA 1	134,310	145,338	(8%)	131,473	137,076	141,385	(3%)
Gross DA 2	18,171	16,773	8%	19,598	18,342	16,450	12%
Gross DA 3	345	246	40%	503	485	149	-
Working Interest	106,978	113,650	(6%)	106,102	109,132	110,588	(1%)
<b>Ravva (Block PKGM-1)</b>							
Gross operated	15,067	16,271	(7%)	16,775	14,890	17,195	(13%)
Oil	12,202	14,081	(13%)	13,881	12,443	14,795	(16%)
Gas (Mmscfd)	17	13	31%	17	15	14	2%
Working Interest	3,390	3,661	(7%)	3,774	3,350	3,869	(13%)
<b>Cambay (Block CB/OS-2)</b>							
Gross operated	19,170	11,543	66%	18,842	17,991	10,408	73%
Oil	16,682	9,939	68%	16,581	15,800	8,576	84%
Gas (Mmscfd)	15	10	55%	14	13	11	20%
Working Interest	7,668	4,617	66%	7,537	7,196	4,163	73%
<b>Average Price Realization</b>							
Cairn Total (US\$/boe)	61.2	58.8	4%	64.6	65.3	50.5	29%
Oil (US\$/bbl)	62.1	59.0	5%	65.1	66.0	50.7	30%
Gas (US\$/mscf)	7.9	8.7	(9%)	8.7	8.5	7.4	14%



# Segment Summary – Aluminium

Particulars (in'000 tonnes, or as stated)	Q4			Q3	Full year		
	FY 2019	FY 2018	% change YoY	FY2019	FY 2019	FY 2018	% change YoY
Alumina – Lanjigarh	424	351	21%	404	1,501	1,209	24%
<b>Total Aluminum Production</b>	<b>481</b>	<b>477</b>	<b>1%</b>	<b>502</b>	<b>1,959</b>	<b>1,675</b>	<b>17%</b>
Jharsuguda-I	135	132	2%	137	545	440	24%
Jharsuguda-II <sup>1</sup>	203	202	-	221	843	666	27%
245kt Korba-I	66	66	1%	66	260	259	-
325kt Korba-II <sup>2</sup>	77	77	1%	79	311	310	-
<b>Financials (In ₹ crore, except as stated)</b>							
Revenue	6,547	7,076	(7%)	7,605	29,229	23,156	26%
EBITDA – BALCO	132	301	(56%)	356	957	761	26%
EBITDA – Vedanta Aluminium	265	933	(72%)	(94)	1,245	1,893	(34%)
<b>EBITDA Aluminum Segment</b>	<b>397</b>	<b>1,234</b>	<b>(68%)</b>	<b>262</b>	<b>2,202</b>	<b>2,654</b>	<b>(17%)</b>
Alumina CoP – Lanjigarh (\$/MT)	290	326	(11%)	308	322	326	(1%)
Alumina CoP – Lanjigarh (₹ /MT)	20,400	20,900	(2%)	22,200	22,500	21,000	7%
Aluminium CoP – (\$/MT)	1,776	1,970	(10%)	2,025	1,940	1,887	3%
Aluminium CoP – (₹ /MT)	125,200	126,600	(1%)	146,000	135,600	121,600	12%
Aluminum CoP – Jharsuguda (\$/MT)	1,771	1,955	(9%)	2,015	1,938	1,867	4%
Aluminium CoP – Jharsuguda(₹ /MT)	124,900	125,700	(1%)	145,300	135,500	120,300	13%
Aluminum CoP – BALCO (\$/MT)	1,789	2,005	(11%)	2,045	1,945	1,923	1%
Aluminium CoP – BALCO (₹ /MT)	126,100	128,900	(2%)	147,500	135,900	123,900	10%
Aluminum LME Price (\$/MT)	1,859	2,159	(14%)	1,971	2,035	2,046	(1%)

1. Including trial run production of 13.5 kt in Q4 FY2019 and 9.8 kt in Q4 FY2018 and 14.0 kt in Q3 FY2019. For FY 2019 Trial run production was 60.5 kt vs 61.8 kt in FY2018

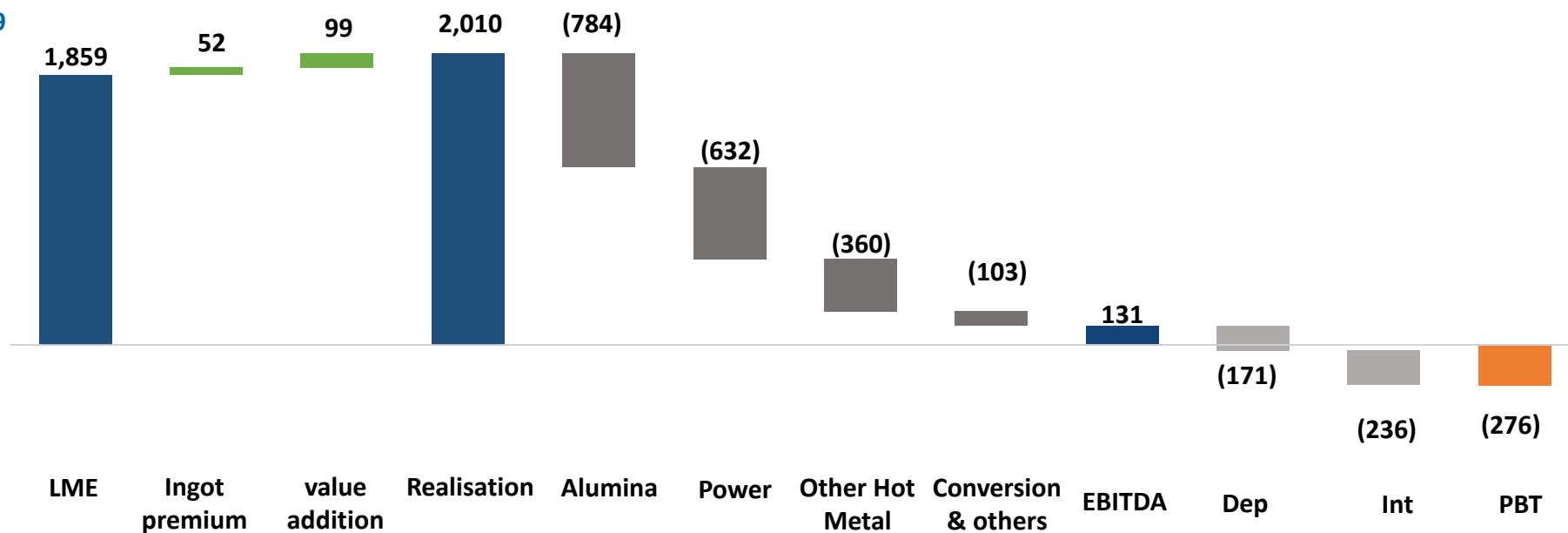
2. Including trial run production of NIL in Q4 FY 2019 and NIL tonnes in Q4 FY2018 and NIL tonnes in Q3 FY2019. For FY 2019 Trial run production was NIL vs 16.1 kt in FY2018

# Aluminium profitability

\$/t

Q3 '19	1,971	29	93	2,093	(875)	(793)	(357)	11	\$79/t	(146)	(225)	(292)
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Q4 '19



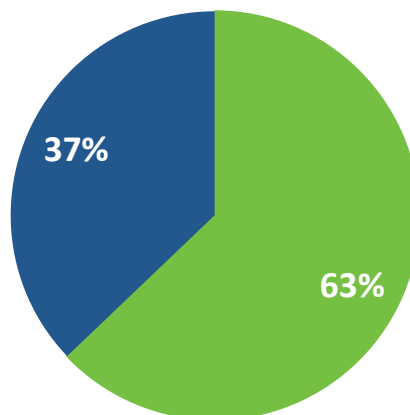
Operating costs

Particulars (in million units)	Q4			Q3	Full year		
	FY 2019	FY 2018	% change YoY	FY2019	FY 2019	FY 2018	% change YoY
<b>Total Power Sales</b>	<b>3,520</b>	<b>3,109</b>	<b>13%</b>	<b>3,165</b>	<b>13,517</b>	<b>11,041</b>	<b>22%</b>
Jharsuguda 600 MW	615	404	52%	136	1,039	1,172	(11%)
BALCO 600 MW	593	388	53%	438	2,168	1,536	41%
HZL Wind Power	77	58	33%	48	449	414	9%
MALCO	-	-	-	-	-	4	-
TSPL	2,235	2,258	(1%)	2,543	9,858	7,915	25%
<b>Financials (in ₹ crore except as stated)</b>							
Revenue	1,593	1,764	(10%)	1,623	6,524	5,652	15%
EBITDA	360	594	(39%)	364	1,527	1,665	(8%)
Average Cost of Generation(₹ /unit) ex. TSPL	3.10	2.73	14%	2.92	2.90	2.33	24%
Average Realization (₹ /unit) ex. TSPL	3.09	3.01	3%	3.58	3.38	2.88	17%
TSPL PAF (%)	85%	93%	-	81%	88%	74%	-
TSPL Average Realization (₹ /unit)	3.96	3.43	15%	4.19	4.09	3.52	16%
TSPL Cost of Generation (₹ /unit)	2.90	2.33	24%	3.18	3.08	2.54	21%

## Power Generation Capacity – c. 9GW

### IPP: 3.3GW

- 600MW Jharsuguda (of 2400MW plant)
- 1,980MW TSPL
- 300MW BALCO (of 1200MW plant)
- 274MW HZL Wind Power
- 100MW MALCO



### CPP: 5.5GW

- 1,215MW Jharsuguda
- 3\*600MW Jharsuguda (of 2400MW plant)
- 540MW BALCO
- 270MW BALCO
- 3\*300MW BALCO (of 1200 MW plant)
- 90MW Lanjigarh
- 474MW HZL
- 160MW Tuticorin
- 80 MW ESL

*Note: MALCO 100MW (IPP) is under care and maintenance since 26<sup>th</sup> May 2017*

*BALCO 300 MW: rreceived an order dated January 1, 2019 from CERC for Conversion of 300 MW IPP to CPP. During Q4 FY2019, 184 units were sold externally from this plant.*

Particulars (in million dry metric tonnes, or as stated)	Q4			Q3	Full year		
	FY 2019	FY 2018	% change YoY	FY2019	FY 2019	FY 2018	% change YoY
<b>Sales</b>	<b>1.4</b>	<b>2.7</b>	<b>(49%)</b>	<b>0.7</b>	<b>3.8</b>	<b>7.6</b>	<b>(49%)</b>
Goa	0.0	2.4	-	0.1	1.3	5.4	(77%)
Karnataka	1.4	0.3	-	0.6	2.6	2.2	19%
<b>Production of Saleable Ore</b>	<b>0.9</b>	<b>1.7</b>	<b>(47%)</b>	<b>0.7</b>	<b>4.4</b>	<b>7.1</b>	<b>(38%)</b>
Goa	-	1.5	-	-	0.2	4.9	(95%)
Karnataka	0.9	0.1	-	0.7	4.1	2.2	89%
<b>Production ('000 tonnes)</b>							
Pig Iron	184	182	1%	163	686	646	6%
<b>Financials (In ₹ crore, except as stated)</b>							
Revenue	853	1,067	(20%)	658	2,911	3,162	(8%)
EBITDA	240	178	35%	101	584	400	46%

## Segment Summary – Steel\*

Particulars (in million dry metric tonnes, or as stated)	Q4			Q3	Full year		
	FY 2019	FY 2018	% change YoY	FY2019	FY 2019	FY 2018	% change YoY
<b>Total Production</b>	<b>347</b>	<b>301</b>	<b>15%</b>	<b>325</b>	<b>1,199</b>	<b>1,025</b>	<b>17%</b>
Pig Iron	35	33	6%	47	142	179	(21%)
Billet	9	9	(7%)	24	39	50	(21%)
TMT Bar	134	99	36%	111	441	300	47%
Wire Rod	116	112	3%	103	427	365	17%
Ductile Iron Pipes	53	47	12%	40	150	130	15%
<b>Financials (In ₹ crore, except as stated)</b>							
Revenue	1,581	1,158	36%	1,198	4,909	3,594	37%
EBITDA	337	164	-	249	970	353	-
Margin (\$/t)	122	103	18%	120	115	53	-

\* Vedanta acquired steel on 4<sup>th</sup> June 2018, Previous period numbers are memorandum information for the purpose of performance evaluation of the Company.

# Segment Summary – Copper India

Production (in '000 tonnes, or as stated)	Q4			Q3	Full year		
	FY 2019	FY 2018	% change YoY	FY 2019	FY 2019	FY 2018	% change YoY
Copper - Cathodes	26	106	(75%)	23	90	403	(78%)
Tuticorin power sales (million units)	-	2	-	-	-	39	-
<b>Financials (In ₹ crore, except as stated)</b>							
Revenue	2,803	7,508	(63%)	2,763	10,739	24,951	(57%)
EBITDA	(69)	347	-	(75)	(235)	1,055	-
Copper LME Price (\$/MT)	6,215	6,961	(11%)	6,172	6,337	6,451	(2%)

Sales volume	Q4 FY2019	FY 2019	Q4 FY2018	FY 2018	Q3 FY2019
<b>Zinc-India Sales</b>					
Refined Zinc (kt)	177	694	210	793	187
Refined Lead (kt)	52	198	50	169	54
<b>Total Zinc-Lead (kt)</b>	<b>229</b>	<b>892</b>	<b>259</b>	<b>961</b>	<b>241</b>
Silver (tonnes)	196	676	169	558	178
<b>Zinc-International Sales</b>					
Zinc Refined (kt)	26	66	23	85	16
Zinc Concentrate (MIC)	22	42	6	34	8
<b>Total Zinc (Refined+Conc)</b>	<b>47</b>	<b>108</b>	<b>29</b>	<b>118</b>	<b>24</b>
Lead Concentrate (MIC)	9	36	8	53	11
<b>Total Zinc-Lead (kt)</b>	<b>56</b>	<b>144</b>	<b>37</b>	<b>171</b>	<b>34</b>
<b>Aluminium Sales</b>					
Sales - Wire rods (kt)	106	367	115	381	90
Sales - Rolled products (kt)	9	26	8	27	6
Sales - Busbar and Billets (kt)	78	383	102	316	105
<b>Total Value added products (kt)</b>	<b>192</b>	<b>776</b>	<b>224</b>	<b>723</b>	<b>200</b>
Sales - Ingots (kt)	275	1,139	263	949	294
<b>Total Aluminium sales (kt)</b>	<b>467</b>	<b>1,916</b>	<b>487</b>	<b>1,672</b>	<b>494</b>

Sales volume	Q4 FY 2019	FY2019	Q4 FY 2018	FY2018	Q3 FY2019
<b>Iron-Ore Sales</b>					
Goa (mn DMT)	0.0	1.3	2.4	5.4	0.1
Karnataka (mn DMT)	1.4	2.6	0.3	2.2	0.6
Total (mn DMT)	1.4	3.8	2.7	7.6	0.7
Pig Iron (kt)	191	684	185	645	155
<b>Copper-India Sales</b>					
Copper Cathodes (kt)	3	6	43	200	2
Copper Rods (kt)	28	112	64	203	31
Sulphuric Acid (kt)	-	9	138	505	-
Phosphoric Acid (kt)	-	1	45	195	-
<b>Total Steel Sales (kt)</b>	<b>392</b>	<b>1,185</b>	<b>291</b>	<b>1,028</b>	<b>290</b>
Pig Iron	37	142	37	185	50
Billet	15	32	5	43	3
TMT Bar	152	442	92	310	102
Wire Rod	125	421	114	360	99
Ductile Iron Pipes	63	148	45	129	36

1. Average excludes TSPL

2. Based on Availability

Sales volume	Q4 FY 2019	FY2019	Q4 FY 2018	FY2018	Q3 FY2019
<b>Power Sales (mu)</b>					
Jharsuguda 600 MW	615	1,039	404	1,172	136
TSPL	2,235	9,858	2,258	7,915	2,543
BALCO 600 MW	593	2,168	388	1,536	438
MALCO	-	-	-	4	-
HZL Wind power	77	449	58	414	48
Total sales	<b>3,520</b>	<b>13,517</b>	<b>3,109</b>	<b>11,041</b>	<b>3,165</b>
<b>Power Realisations (INR/kWh)</b>					
Jharsuguda 600 MW	2.38	2.42	2.67	2.34	3.15
TSPL <sup>2</sup>	3.96	4.09	3.43	3.52	4.19
Balco 600 MW	3.71	3.67	3.21	2.93	3.67
MALCO	-	-	-	3.21	-
HZL Wind power	4.04	4.20	4.04	4.21	3.93
Average Realisations <sup>1</sup>	<b>3.09</b>	<b>3.38</b>	<b>3.01</b>	<b>2.88</b>	<b>3.58</b>
<b>Power Costs (INR/kWh)</b>					
Jharsuguda 600 MW	3.63	4.28	3.46	2.82	4.68
TSPL <sup>2</sup>	2.90	3.08	2.33	2.54	3.18
Balco 600 MW	2.75	2.65	2.20	2.31	2.45
MALCO	-	-	-	41.65	-
HZL Wind power	1.46	0.88	1.09	0.63	2.18
Average costs <sup>1</sup>	<b>3.10</b>	<b>2.90</b>	<b>2.73</b>	<b>2.33</b>	<b>2.92</b>

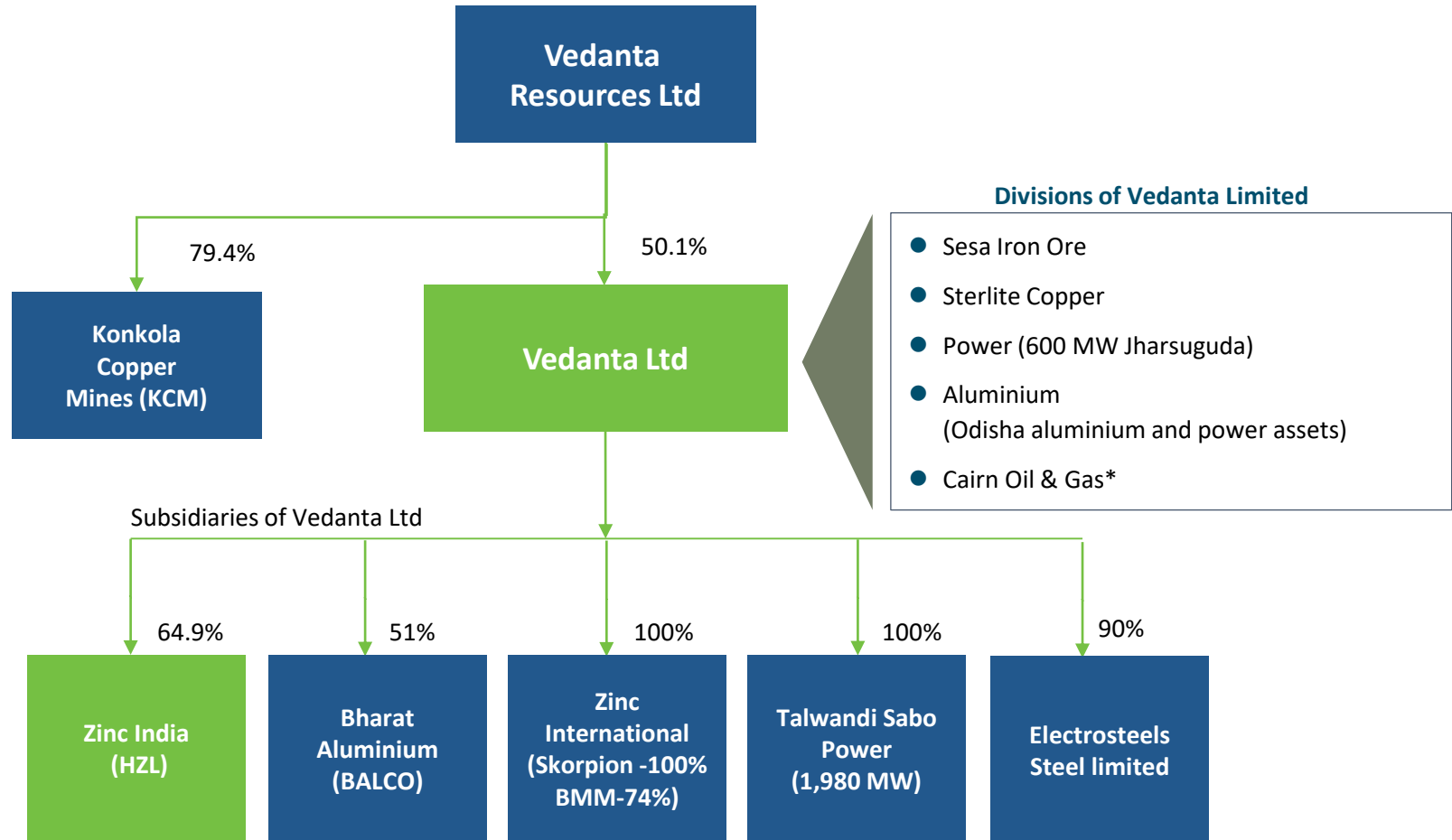


## Foreign Currency - Impact of 1 Rs depreciation in FX Rate

Currency	Increase in EBITDA
INR/USD	~ INR 600 crs / year

## Commodity prices – Impact of a 10% increase in Commodity Prices

Commodity	FY 2019 Average price	EBITDA (\$mn)
Oil (\$/bbl)	70	119
Zinc (\$/t)	2,743	196
Aluminium (\$/t)	2,035	291
Lead (\$/t)	2,121	42
Silver (\$/oz)	15.4	35



Note: Shareholding as on March 31, 2019

\*50% of the share in the RJ Block is held by a subsidiary of Vedanta Ltd

■ Listed entities

■ Unlisted entities

Results conference call is scheduled at 6:30 PM (IST) on May 7, 2019. The dial-in numbers for the call are given below:

Event		Telephone Number
Earnings conference call on May 7, 2019	<b>India – 6:30 PM (IST)</b>	<b>India:</b> +91 7045671221 Toll free: 1800 120 1221 <b>Universal access:</b> +91 22 7115 8015 +91 22 6280 1114
	<b>Singapore – 9:00 PM (Singapore Time)</b>	Toll free number 800 101 2045
	<b>Hong Kong – 9:00 PM (Hong Kong Time)</b>	Toll free number 800 964 448
	<b>UK – 2:00 PM (UK Time)</b>	Toll free number 0 808 101 1573
	<b>US – 9:00 AM (Eastern Time)</b>	Toll free number 1 866 746 2133
For online registration	<a href="https://services.choruscall.in/DiamondPassRegistration/register?confirmationNumber=86186&amp;linkSecurityString=1f2bfd88">https://services.choruscall.in/DiamondPassRegistration/register?confirmationNumber=86186&amp;linkSecurityString=1f2bfd88</a>	
Link to view Live Webcast of Earnings conference	<a href="https://services.choruscall.eu/links/vedantalimited190507.html">https://services.choruscall.eu/links/vedantalimited190507.html</a>	
Replay of Conference Call (May 7, 2019 to May 14, 2019)		Mumbai +91 22 7194 5757 Passcode: 63835#