

8th June 2023

## Vedanta Resources Limited

### Results for the year ended 31 March 2023

#### Financial highlights

- Record Revenue (before special items) for the year at US\$ 18.1 billion (FY2022: US\$ 17.6 billion), higher 3% YoY. This was primarily driven by higher volumes at Copper and Zinc and strategic hedging gains, partially offset by slip in commodity prices majorly of aluminium, copper, lead, and silver
- Consolidated EBITDA at US\$ 4.6 billion, 26% lower YoY (FY2022: US\$ 6.3 billion)
- Industry leading adjusted EBITDA margin<sup>1</sup> of 29% (FY2022: 40%)
- Strong ROCE at c.20% in FY2023 (FY2022: 32%)
- Profit Attributable to equity holders (before special items) at US\$ 49 million (FY2022: US\$ 825 million)
- Free cash flow (FCF) post-capex of US\$ 1.6 billion (FY2022: US\$ 2.1 billion) driven by strong cash flows from operations and working capital release, partially offset by capex payments.
- Gross debt at US\$ 15.4 billion (FY2022: US\$ 16.1 billion). This was mainly due to deleveraging of US\$ 1.8 billion at Vedanta Resources Standalone partly offset by temporary debt of US\$ 1.1 billion at HZL.
- Net debt at US\$ 12.7 billion (FY2022: US\$ 11.7 billion), primarily due to dividend payment and capex outflow, partially offset by strong cash flow from operations and working capital release.
- Strong liquidity position with cash and cash equivalents of US\$ 2.6 billion (FY2022: US\$ 4.4 billion)
- VRL continues to be in a comfortable position to address all its debt maturities with a strong balance sheet, robust liquidity at its operating subsidiaries and strong track record of raising funds through relationship banks.
- Contribution to the exchequer of c. US\$ 9.4 billion in FY2023 (FY2022: US\$ 7.4 billion)
- Net Debt/EBITDA of 2.8x

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*Note 1: Excluding customs smelter at copper business*

#### Business highlights

##### Zinc India

- Highest ever ore production of 16.74 million tonnes
- Record mined metal production of 1,062 kt, up 4% YoY
- Historic refined zinc-lead production of 1,032 kt, up 7% YoY
- Highest ever silver production of 714 tonnes, up 10% YoY

## Zinc International

- All time high Gamsberg production of 208kt from 170kt, increased 22% YoY. On track to surpass design capacity in FY24
- Significant increase in BMM production YoY by 25% to 65kt

## Oil & Gas

- Average gross operated production of 143 kboepd, down 11% YoY, owing to natural field decline. The decline has been partially offset by new infill wells brought online across all assets and exploration success in Ravva block
- Key growth projects update:
  - Infill drilling carried out to sustain volumes in Mangala, Bhagyam, Aishwariya, Tight Oil (ABH), Tight Gas (RDG), Satellite Field (Raag Oil, Tukaram) and Offshore (Ravva, Cambay)
  - 74 wells drilled and 63 wells hooked up during FY 2023 across all assets
  - OALP & DSF - Commenced production from Jaya and Hazarigaon fields. Drilling preparations ongoing in West-Coast Offshore to drill a moderate risk-high reward prospect (risked resource potential of 42 mmboe) within the Kutch-Saurashtra basin

## Aluminium

- Highest ever aluminium production at 2,291 kt. Continue to be the largest primary aluminium producer in the country
- Alumina production from Lanjigarh refinery at 1,793 kt, down 9% YoY due to maintenance shutdown

## Power

- Record overall power sales increased 25% YoY to 14,835 million units driven by improved performance of TSPL and Jharsuguda
- TSPL achieved highest ever PLF of 67% with lowest ever auxiliary power consumption of 6.86%
- TSPL Plant availability was at 82% in FY 2023

## Iron Ore

- Production of saleable ore at Karnataka at 5.3 million tonnes
- Pig Iron production was at 696 kt
- Iron Ore Sales at Goa at 0.7 million tonnes
- Commenced commercial production at Nicomet – India's only Nickel Cobalt operations
- Started production from Western Cluster Liberia mines, expanding global operations

## Steel

- Highest ever Hot Metal Production of 1.37 million tonnes, up 1% YoY
- Record saleable production of 1.29 million tonnes post acquisition, up 2% YoY
- Highest ever DIP production of 196 kt, up 20% YoY

### **FACOR**

- Record chrome Ore production at 290 kt, up 16% YoY
- Ferro Chrome Production of 67 kt, down 11% YoY; sales at 67kt, down 12% YoY
- Commissioned new 60ktpa furnace; total ferro-chrome capacity at 140 ktpa

### **Copper India**

- Cathode production from the Silvassa at 148 kt, up by 18% YoY driven by continuous debottlenecking of plant capacity and improved operational efficiencies
- Enhanced product portfolio to include Research Designs & Standards Organisation approved 19.6 MM & 23.5 MM Rod
- Due legal process being followed to achieve a sustainable restart of the operations

## **Committed to ESG leadership in the natural resources sector**

- Committed to being the lowest cost producer in a sustainable manner
- Committed to incorporating global best practices to transform communities, planets and workplace in alignment with our Group's objective of 'Zero Harm, Zero Waste and Zero Discharge'
- Implemented critical risk management across the business to improve workplace safety
- Committed to promoting diversity in all forms at workplace and building an inclusive work culture
- Committed to attaining Net Zero Carbon by 2050 and reducing absolute emissions by 25% by 2030, with 2021 as baseline. Operational efficiency, changing fuel mix, switching to renewables, exploring greener businesses opportunities and developing low carbon product portfolio are the levers that will be deployed to achieve this goal
- Water efficiency and achieving net water positivity by 2030
- Committed to keeping community welfare at the core of decision making by implementing global best practices and becoming a developer of choice
- Committed to positively impacting the lives of 100 million women and children through skilling and education, nutrition and healthcare initiatives
- Committed to transparency and completeness of disclosure in alignment with GRI, TCFD and IIFC

### **Actions taken during FY 2023**

- Ranked 6<sup>th</sup> among DJSI's top 10 global diversified Metal & Mining peers
- Signed Renewable Energy PDAs of 1636 MW across the group as on 31<sup>st</sup> March 2023
- Cairn, IOB and VZI-BMM achieved water positivity

- 100% of business sites audited for ESG compliance
- Workplace gender diversity increased to 14% from 11% in FY 2022
- Biomass usage improved to 78,000 tonnes; 4x higher than FY2022
- Total water consumption reduced by 6% YoY
- HVLT waste usage at 94%
- Launched “Enablon” - an integrated sustainability risk management and ESG reporting software
- 1.1 million trees planted as part of commitment to plant 7 million trees by 2030
- 4500+ Nand Ghars created for women and child welfare
- ~US\$ 9.4 billion contribution to National Exchequers
- Spent US\$ 56+ million on CSR initiatives for communities, positively touching 44 million lives

## Consolidated Group results

Particulars	<i>(US\$ million, unless stated)</i>		
	Year ended 31 March 2023	Year ended 31 March 2022 <sup>2</sup>	% change
Revenue	18,141	17,619	3%
EBITDA	4,608	6,255	(26%)
EBITDA margin	25%	36%	-
Adjusted EBITDA margin <sup>1</sup>	29%	40%	-
Operating profit before special items	3,196	5,027	(36%)
Profit/(loss) attributable to equity holders of the parent	(5)	1,002	-
Underlying attributable profit/(loss)	87	844	(90%)
ROCE %	20%	32%	-

1. Excludes custom smelting at Copper Business.

2. Previous period figures have been regrouped or re-arranged wherever necessary to conform to current period's presentation except ROCE

## Message from Chairman

Dear Stakeholders,

I am happy to take this opportunity to share my thoughts and express gratitude for your continued trust in Vedanta. Our journey of growth and shared value creation continued unabated during FY 2023 despite market volatility. We owe this success to our team whose agility in pursuing opportunities, thought leadership and decisive action brought us closer to achieving our ambitious goals.

We are pleased to have meaningfully addressed the needs of our stakeholders and communities while assuming a leadership position in tackling environmental issues. Our ESG strategy, 'Transforming for Good' has been instrumental in achieving this objective. We are now evolving this further with a more comprehensive approach of 'Transforming Together', to create a greater positive impact on our stakeholders and society at large. We are excited about the future and are progressing with greater energy and enthusiasm to create value for all.

### India gains global prominence

FY 2023 has been an incredible year for India. The country outperformed and repositioned itself amongst the world's fastest-growing economies, even as most developed nations faced slower growth amidst high inflation. It posted an impressive 6.8% GDP growth in FY 2023, after delivering 9.1% growth in the previous fiscal year. It is indeed encouraging to witness this growth story unfold with a visible supply chain shift in India's favour and its manufacturing prowess getting due recognition globally.

India's improved outlook in many ways is attributable to the government's quest for self-reliance in manufacturing, minerals and resources. Its importance was accentuated in the aftermath of the pandemic and the Russia-Ukraine conflict, which saw heightened uncertainties and geopolitical tensions globally. Several countries have found themselves precariously positioned, given their dependence on others for key resources. Reassessment of supply chain strategies globally was thus inevitable. Already "China Plus One" policy is gathering momentum as companies and countries seek to diversify their reliance beyond China to other destinations.

India finds itself in an advantageous position, particularly in creating a resilient supply chain and indigenous manufacturing. Energy security and world-class infrastructure will be key to the success of this journey. This trinity of manufacturing, infrastructure and energy along with a focus on digitalisation can continue to propel India's economic growth, unlock new business opportunities and create jobs. It is expected that India's GDP will double to US\$ 7.5 trillion during 2022-2031 with a substantial rise in the contribution from manufacturing.

India's Union Budget 2023 also seems to have hit the right notes by prioritising green and digital economies and infrastructure creation through increased capital expenditure allocations. It further focusses on giving a boost to MSMEs with a revamped credit scheme.

The Indian economy remains on a strong footing, with unprecedented levels of optimism and multiple advantageous factors at play. The determined implementation of various positive policies and programmes will drive India's exceptional growth story for years to come.

### Vedanta for a self-reliant India

As India's largest diversified natural resources company and one of the largest corporations globally with businesses spanning metals, mining and energy, Vedanta has a distinct advantage in India's journey of self-reliance. Our mining expertise powered by best-in-class technology and talented people along with a robust value-added portfolio positions us attractively to harness the evolving growth opportunity.

We envisage a greater role for us in the nation's growth story and in making India self-reliant for minerals and energy - an imperative given the growing population and rising industrial activity. Vedanta is already expanding its aluminium and zinc capacities. Our oil and gas operations, which account for nearly one-quarter of India's production, is also diversifying its reserve and resources portfolio towards a vision of contributing 50% to India's total Oil and Gas production. We have already invested US\$ 1.2 billion in the form of growth capex in FY 2023 to augment our assets and production. We envisage committing another US\$ 1.7 billion in FY 2024 towards growth projects.

### **Delivering all-round performance**

This year, we operated against a difficult and uncertain macro-environment, driven by prolonged geo-political conflict, subsequent energy crisis and aggressive monetary policies adopted by central banks. Our teams delivered excellent operating performance despite the challenges posed by uncertain commodities markets and supply chain realignments. We reported a strong set of financial results, US\$ 18.1 billion in revenue and US\$ 4.6 billion in EBITDA. We have generated a healthy net-free cash flow of US\$ 1.6 billion. This all-round performance is a testament to our outstanding portfolio and accomplished leadership team.

Vedanta is committed to growing responsibly by ensuring that the communities, in which we operate, thrive and grow with us. Our flagship programme 'Nand Ghar' has been working extensively to strengthen the Aanganwadi ecosystem in India and bridge the urban-rural gap with best-in-class services. We now have Nand Ghars across 14 states which have collectively uplifted 3.2 lakh women and children through education, nutrition and healthcare.

In continuation of our 'net zero' journey, we have signed renewable energy power delivery agreements (PDAs) under the Group's captive policy during FY 2023. We have also moved a step closer towards realising our philosophy of "zero harm, zero waste, zero discharge" with three more of our business sites being declared water positive.

Vedanta is now ranked 6<sup>th</sup> among the top 10 diversified metal and mining peers on the Dow Jones Sustainability Index. Further, Vedanta and its various group companies received multiple awards in finance, operational excellence, CSR and HR categories across various recognised platforms.

### **Quest to transform and grow together**

Vedanta stands for the highest standards of excellence and integrity and strives to achieve sustainable and responsible growth together with all stakeholders. Our new theme, 'Transforming Together', embodies this commitment by fostering collective actions to achieve inclusive, responsible and value-accretive growth. These efforts will be underpinned by environmental stewardship, social equity and impact, besides good governance to deliver tangible benefits to all stakeholders.

### ***Inclusive***

It is our continuous endeavour to drive a more resource and minerals-secure world but with the utmost consideration for our people, stakeholders and communities at large.

We believe people are our greatest assets. Through our industry-leading, globally benchmarked people practices, we promote a work culture that fosters an ecosystem of trust, high performance and inclusivity, with safety being a top priority. Diversity is an area where Vedanta has performed exceptionally with efforts around enhancing women's representation at higher levels including CXO positions, attracting talent from all regions and promoting an LGBTQ+ friendly workplace. Our efforts towards employees' well-being have earned us Great Place to Work® accreditation and the esteemed Kincentric Best Employer Award – India 2022.

We are making significant progress in our mission to combat malnutrition and achieve zero hunger. This year, Nand Ghar reached the 4,500 mark across 14 states of India. We also reached out to people, globally, to join us in the Run for Zero Hunger movement with the Vedanta Delhi Half Marathon

and Vedanta Pink City Half Marathon. Hundreds of thousands of people joined us in this movement, and we pledged 2 million meals for a healthy and nourished India. In the International Year of Millets and in line with Poshan 2.0 initiative, Nand Ghar also launched a multi-millet nutribar for the holistic nourishment of every child.

We continue to positively transform the lives of our communities through targeted social impact interventions. I am happy to share that this year, we were able to touch the lives of 43.6 million community members across India and abroad.

### **Responsible**

Climate change is a defining challenge in the current era. Vedanta seeks to address this. We have set ambitious goals, aligned with UN's Sustainable Development Goals, for environmental stewardship through decarbonisation, circular economy and water positivity. We are also working in partnership with trade bodies and governments to ensure all stakeholders push towards these goals.

In FY 2023, substantial progress was made towards net carbon neutrality. In a pioneering effort, we became the first corporate in South Asia to join the World Economic Forum's 1 trillion trees movement with a pledge to plant 7 million trees by 2030. We are taking steady steps to achieve 2.5 GW round-the-clock renewable energy (RE RTC) targeted capacity by 2030. We have also rolled out a unique industry-leading EV policy to incentivise employees to switch to EVs and are well on track towards decarbonising 100% of our light motor vehicles fleet by 2030.

### **Value-accretive**

Vedanta's strategic investments and prudent financial management strategy are to ensure long-term sustainable growth and consistent shareholders' returns. With this strategic objective, we are investing in various projects for volume growth, backward integration and value-added products, as well as advancing digitalisation at pace.

We have an impeccable track record of honouring all capital market commitments. Vedanta Resources has deleveraged by US\$ 2 billion during FY 2023 against its commitment of US\$ 4 billion deleveraging over three years.

### **Exciting times ahead**

We are optimistic about an exciting journey ahead. The macroeconomic factors and risks faced by advanced economies going into recession may pose potential challenges to metal demand. Yet the overall sentiment towards mined commodities is improving as the pace of energy transition accelerates across the globe. Even in the macro backdrop, some green shoots are already visible with inflationary pressures beginning to ease and supply chain constraints showing signs of relenting. This will help to improve profitability and generate robust cash flows.

The demand side remains buoyant with the re-opening of China and the global trend towards a green economy and digital economy. India's focus on electric mobility, renewable energy and infrastructure creation is expected to drive domestic minerals demand and attract global investments.

We expect vast opportunities to unfold in the coming years. Our focus is on consolidating our leadership position and unlocking value through growth project execution, scaling innovation and digitalisation and progressing on ESG targets. We also remain committed to improving our financial profile and continue to make disciplined capital allocation decisions. On this positive note, I thank all our stakeholders for believing in our growth story. We seek your continued support in our efforts to create value for all and continue to be a partner in and contribute to India's remarkable economic rise.

Best regards,  
Anil Agarwal

## Strategic overview

Vedanta has always focused on 'Growth in a Responsible way' to unearth elements that contribute significantly towards self-sustainability and growth of the regions in which it operates and the well-being of the communities around its operations.

Throughout the year, our sustainability-focussed and integrated business model propelled value-creation, delighting our stakeholders. Vedanta contributed ~US\$ 9.4 billion to the exchequer. We made significant advancements on crucial Environmental, Social and Governance (ESG) commitments besides expanding capacities and our portfolio of value-added products in line with global trends and India's journey of reliance. This positions us ideally to capitalise on emerging opportunities, and power the next phase of growth, which will be more sustainable and predictable through economic cycles.

In FY 2023, we delivered significant progress across all our businesses with record volumes in Aluminium, Zinc India and Zinc International businesses. Key cost reduction, capex and operational improvement projects enabled us to stay on course with our growth plans.

Aluminium business achieved the highest-ever aluminium production in FY 2023, which included 59 kt of green aluminium (branded Restora and Restora Ultra). During the year, we pursued structural initiatives like optimising the coal and bauxite mix, improving capacity utilisation and implementing growth and vertical integration projects. We completed the Jharsuguda capacity ramp-up to 1.8 MTPA and going forward, Lanjigarh refinery expansion from 2 MTPA to 5 MTPA remains our key focus area. Zinc India registered its best-ever mined metal production and refined metal production. Despite rising input costs, it continues to be in the first quartile of the global cost curve. Zinc International recorded its highest-ever mined metal production. In the Oil & Gas segment our efforts were focused on adding reserves and resources. The infill wells across producing fields have enabled us to mitigate a part of the production decline. We are working on development projects to unlock potential of our contingent resource base. Exploration activities across the portfolio has enabled us generate prospects and add resources. We successfully commenced production at the 60 KTPA furnace in February 2023, taking the total Fe-Cr alloy capacity to 140 KTPA.

### Summary of strategic priorities:

#### **Operational excellence and cost leadership:**

We strive for all-round operational excellence to achieve benchmark performance across our business, by debottlenecking our assets to enhance production, supported by improved digital and technology solutions. Our efforts are focused on enhancing profitability by optimising our cost and improving realisations through prudent marketing strategies.

#### **Continued Focus on World Class ESG Performance:**

We operate as a responsible business with a focus on Zero harm, Zero Discharge and Zero Waste. Our revised vision is "Transforming for Good" around three focus areas transforming communities, transforming the planet, and transforming the workplace. Through these focus areas, we work towards generating positive values for our important stakeholders and minimizing the impacts on the environment. We also promote social inclusion across our operations to promote inclusive growth.

#### **Optimise capital allocation and maintain a strong balance sheet:**

Our focus is on generating strong business cashflows and maintaining stringent capital discipline in investing in profitable high IRR projects. Our aim is to maintain a strong balance sheet through proactive liability management. We also review all investments (organic and acquisitions) based on our stringent capital allocation framework to maximise shareholder returns.



***Deliver on growth opportunities:***

We are focused on growing our operations organically by developing brownfield opportunities in our existing portfolio. Our large, well-diversified, low-cost and long-life asset portfolio offers us attractive expansion opportunities, which are evaluated based on our return criteria for long-term value creation for all stakeholders

***Augment our reserves & resources (R&R) base:***

We look at ways to expand our R&R base through targeted and disciplined exploration programmes. Our exploration teams aim to discover mineral and oil deposits in a safe and responsible manner and replenish the resources that support our future growth ambitions.

## Finance review

### Executive summary:

We had a strong operational and financial performance in FY2023 amidst the challenges faced due to macroeconomic uncertainty. The company continues to focus on controllable factors such as resetting cost base through diverse cost optimisation initiatives, disciplined capital investments, working capital initiatives, marketing initiatives and production improvement, together with strong control measures to ensure safe operations across businesses within framed government and corporate guidelines.

In FY2023, we recorded an EBITDA of US\$ 4.6 billion, 26% lower YoY and robust adjusted EBITDA margin<sup>1</sup> of 29%. (FY2022: US\$ 6.3 billion, margin 40%).

Higher sales volumes resulted in increase in EBITDA by US\$ 86 million, driven by higher volumes at zinc, aluminium and copper partially offset by reduced sales volume at Oil & Gas and Iron & Steel.

Market factors resulted in decrease in EBITDA by US\$ 1,621 million. This was primarily driven by input commodity inflation and decrease in the commodity prices.

Gross debt as on 31 March 2023 was US\$ 15.4 billion, a decrease of US\$ 0.7 billion since March 31, 2022. This was mainly due to deleveraging of US\$ 1.8 billion at Vedanta Resources Standalone partly offset by temporary debt of US\$ 1.1 billion at HZL.

Net debt as on 31 March 2023 was US\$12.7 billion, increased by US\$ 1 billion since 31 March 2022 (FY2022: US\$ 11.7), primarily due to dividend and capex outflow, partially offset by strong cash flow from operations and working capital release.

The balance sheet of Vedanta Resources Limited continues to remain strong with cash & cash equivalents, of US\$ 2.6 billion and Net Debt to EBITDA ratio at 2.8x well within the approved capital allocation framework (FY2022: 1.9x)

*Note 1: Excludes custom smelting at copper business.*

### Consolidated operating profit before special items:

Operating profit before special items decreased by 36% in FY 2023 to US\$ 3.2 billion. This was mainly due to slip in commodity prices at Aluminium, Lead and Silver and headwind in input commodity prices, partially offset by improved sales volume at zinc, aluminium, and copper coupled with strategic hedging gains.

Consolidated operating profit before special items	<i>(US\$ million, unless stated)</i>		
	FY2023	FY2022	% change
Zinc	1,968	1,930	2%
-India	1,788	1,793	0%
-International	180	137	31%
Oil & Gas	500	502	-
Aluminium	426	2,058	(79%)
Power	34	68	(50%)
Iron Ore	91	272	(67%)
Steel	(9)	56	-
Copper India/Australia	(25)	(35)	-
Others	211	176	-
<b>Total Group operating profit before special items</b>	<b>3,196</b>	<b>5,027</b>	<b>(36%)</b>

## Consolidated operating profit bridge before special items:

(US\$ million)

<b>Operating profit before special items for FY2022</b>	<b>5,027</b>
<b>Market and regulatory: US\$ (1,621) million</b>	
a) Prices, premium / discount	(614)
b) Direct raw material inflation	(1,341)
c) Foreign exchange movement	368
d) Regulatory changes	(34)
<b>Operational: US\$ (266) million</b>	
e) Volume	86
f) Cost and marketing	(352)
<b>g) Others</b>	<b>210</b>
Depreciation and amortization	(154)
<b>Operating profit before special items for FY2023</b>	<b>3,196</b>

### a) Prices, premium/discount:

Commodity price fluctuations have a significant impact on the Group's business. During FY2023, we saw a net negative impact of US\$ 614 million on operating profit due to commodity price fluctuations.

Zinc, lead and silver: Average zinc LME prices during FY2023 increased to US\$3,319 per tonne, up 2% YoY; lead LME prices decreased to US\$2,101 per tonne, down 8% y-o-y; and silver prices decreased to US\$21.4 per ounce, down 13% YoY. The cumulative impact of these price fluctuations decreased EBITDA by US\$ 48 million.

TC/RC on Zinc during FY 2023 increased to US\$ 245/dmt up 148% YoY, decreased EBITDA by US\$ 81 million.

Aluminium: Average aluminium LME prices decreased to US\$ 2,481 per tonne in FY2023, down 11% YoY, this had a negative impact of US\$ 770 million on EBITDA.

Oil & Gas: The average Brent price for the year was US\$ 96.0 per barrel, up 19% YoY. This had positive impact on EBITDA by US\$ 159 million.

Iron & Steel: Higher realisations positively impacted EBITDA by US\$ 109 million.

### b) Direct raw material inflation:

Prices of key raw materials such as imported alumina, thermal coal, carbon and coking coal have increased in FY2023, negatively impacting EBITDA by US\$ 1,341 million, primarily at Aluminium, Zinc India and Iron & Steel business.

### c) Foreign exchange movement:

Key exchange rates against the US dollar:

	Average year ended 31 March 2023	Average year ended 31 March 2022	%	As at 31 March 2023	As at 31 March 2022
			change		
Indian rupee	80.27	74.46	7.8%	82.16	75.59

### d) Volumes:

Higher volume led to increase in EBITDA by US\$ 86 million by following businesses:

HZL (positive US\$ 155 million): In FY 2023, HZL achieved metal sales of 1032 kt, up 7% YoY and silver sales of 714 tonnes up 10% YoY

ZI (positive US\$ 52 million): In FY 2023, ZI achieved MIC sales of 274kt, up 23% YoY

Aluminium (positive US\$ 19 million)

Partly offset by:

Cairn (negative US\$ 102 million) and Iron Ore (negative US\$ 45 million)

#### e) Cost and marketing:

Higher costs resulted in decrease in EBITDA by US\$ 425 million over FY2023, primarily due to increased cost, partially offset by higher premia realizations at Aluminium business.

#### f) Others:

This primarily includes the impact of strategic hedging gains, partially offset by inventory adjustments during the year.

#### Income statement:

Particulars	(US\$ million, unless stated)		
	FY2023	FY2022 <sup>1</sup>	% change
Revenue	18,141	17,619	3%
EBITDA	4,608	6,255	(26%)
EBITDA margin (%)	25%	36%	-
EBITDA margin without custom smelting (%)	29%	40%	-
Special items	(178)	408	-
Exploration costs written off	(30)	-	-
Depreciation and amortisation	(1,382)	(1,228)	13%
<b>Operating profit</b>	<b>3,018</b>	<b>5,435</b>	<b>(44%)</b>
Operating profit without special items	3,196	5,027	(36%)
Net interest expense	(1,307)	(1,249)	5%
Interest cost-related special items	-	-	-
Other gains /(losses)	(79)	(38)	-
<b>Profit before taxation</b>	<b>1,632</b>	<b>4,148</b>	<b>(60%)</b>
Profit before taxation without special items	1,810	3,740	(52%)
Income tax expense	(894)	(1,400)	(36%)
Income tax (expense)/credit (special items)	100	(170)	-
<b>Profit for the year from continuing operations</b>	<b>838</b>	<b>2,578</b>	<b>(67%)</b>
Profit for the period/year from continuing operations before special items	916	2,340	(61%)
Profit for the year from discontinuing operations (special items)	-	-	-
<b>Profit for the period /year</b>	<b>838</b>	<b>2,578</b>	<b>(67%)</b>
Profit for the period /year without special items	916	2,340	(61%)
Non-controlling interest	843	1,576	(47%)
Non-controlling interest without special items	867	1,515	(43%)
Attributable profit	(5)	1,002	-
Attributable profit without special items	49	825	(94%)
Underlying attributable profit	87	844	(90%)

1. Previous period figures have been regrouped or re-arranged wherever necessary to conform to current period's presentation.

## Consolidated revenue:

Revenue for the year was US\$ 18,141 million, higher 3% y-o-y. This was primarily driven by higher volumes at copper, zinc and aluminium and strategic hedging gains, partially offset by slip in commodity prices majorly of aluminium, copper, lead, and silver.

*(US\$ million, unless stated)*

Consolidated revenue	FY2023	FY2022	Net revenue % change
Zinc	4,775	4,446	7%
India	4,126	3,844	7%
International	649	602	8%
Oil & Gas	1,873	1,669	12%
Aluminium	6,556	6,833	(4%)
Power	897	783	15%
Iron Ore	809	852	(5%)
Steel	978	869	13%
Copper India/Australia	2,179	2,035	7%
Others <sup>1</sup>	74	132	(44%)
<b>Total</b>	<b>18,141</b>	<b>17,619</b>	<b>3%</b>

1. Includes FACOR, port business and eliminations of inter-segment sales.

## Consolidated EBITDA:

The consolidated EBITDA by segment is set out below:

*(US\$ million, unless stated)*

	FY2023	FY2022	% change	Key drivers	EBITDA margin % FY2023	EBITDA margin % FY2022
Zinc	2,418	2,376	2%		51%	53%
-India	2,177	2,170	0%	Higher volumes	53%	56%
-International	241	206	17%		37%	34%
Oil & Gas	972	809	20%	Higher brent	52%	48%
Aluminium	707	2,328	(70%)	Lower LMEs and input commodity inflation	11%	34%
Power	106	145	(27%)		12%	19%
Iron Ore	124	304	(59%)	Increased COS	15%	36%
Steel	39	94	(58%)	Increased COS offset by higher price realisation	4%	11%
Copper India/Australia	(7)	(15)	-		0%	(1%)
Others <sup>2</sup>	249	214	16%		-	-
<b>Total</b>	<b>4,608</b>	<b>6,255</b>	<b>(26%)</b>	EBITDA margin <sup>1</sup>	<b>25%</b>	<b>36%</b>
				Adjusted EBITDA margin <sup>2</sup>	<b>29%</b>	<b>40%</b>

a) 1. Excludes customs smelting at Copper business.

b) 2. Includes FACOR, port business and eliminations of inter-segment sales.

## EBITDA and EBITDA Margin:

EBITDA for the year was US\$ 4,608 million, 26% lower YoY. This was mainly due to slip in commodity prices at Aluminium, Lead and Silver and headwind in input commodity prices, partially offset by improved sales volume at zinc, aluminium, and copper coupled with strategic hedging gains.

We maintained a strong double digit adjusted EBITDA margin<sup>1</sup> of 29% for the year (FY2022: 40%)

### Special items - Continued operations (included interest income related and others)

In FY2023 special items stood at (US\$ 178) million. For more information, refer note [6] on special items set out in financial statement.

## Net Interest

The blended cost of borrowings was 8.66% for FY2023 compared to with 8.08% in FY2022.

Finance cost for FY2023 was US\$ 1,558 million, 11% higher compared to US\$ 1,402 million in FY2022 mainly on account of increase in average rate of borrowings and other one-time items, partly offset by decline in average borrowings and Forex gain.

Investment income for FY2023 stood at US\$ 251 million, 64% higher as compared to US\$ 153 million in FY 2022. This was mainly due to interest received on income tax refund, mark to market movement and change in investment mix.

### Other gains/(losses) excluding special items

Other gains/(losses) excluding special items for FY2023 amounted to US\$ (79) million, compared to US\$ (38) million in FY2022.

## Taxation

The normalized ETR for FY 2023 is 41% (excluding tax credit on special items of US\$ 100 million, tax on dividend income from subsidiaries US\$ 149 million) compared to 35% in FY 2022 (excluding tax on special items of US\$ 170 million, tax on dividend income from subsidiaries US\$ 63 million and DTA reversal on ESL losses US\$ 16 million) which is primarily on account of profit mix at VRL level.

### Attributable profit after tax (before special items)

Attributable PAT before special items was US\$ 49 million in FY2023 compared to US\$ 825 million in FY2022.

## Fund flow post-capex

The Group generated free cash flow (FCF) post-capex of US\$1,610 million (FY2022: \$2,083 million), mainly due to increased capex outflow partially offset by release of working capital.

## Fund flow movement in net debt<sup>1</sup>

Fund flow and movement in net debt<sup>1</sup> in FY2023 are set out below.

Particulars	<i>(US\$ million, unless stated)</i>	
	FY2023	FY2022
EBITDA	4,608	6,255
Working capital movements	941	(633)
Changes in non-cash items	(15)	(11)
Sustaining capital expenditure	(725)	(697)
Movements in capital creditors	28	(32)

Sale of property, plant and equipment	16	44
Net interest (including interest cost-related special items)	(1,315)	(1,307)
Tax paid	(689)	(829)
Expansion capital expenditure	(1,239)	(706)
Free cash flow (FCF) post capex <sup>1</sup>	1,610	2,083
Dividend paid to equity shareholders	(16)	(131)
Dividend paid to non-controlling interests	(2,523)	(1,075)
Dividend Received	2	-
Payment for acquiring non-controlling interest	(2)	(1,971)
Others	(115)	138
Movement in net debt	(1,044)	(955)

1. Includes foreign exchange movements

## Debt, maturity profile and refinancing

Gross debt at US\$15.4 billion (FY2022: US\$16.1 billion), This was mainly due to deleveraging of US\$ 1.8 billion at Vedanta Resources Standalone partly offset by temporary debt of US\$ 1.1 billion at HZL.

During FY2023, Net Debt increased from US\$11.7 billion to US\$ 12.7 billion, primarily due to dividend and capex outflow, partially offset by strong cash flow from operations and working capital release.

Our total gross debt of US\$15.4 billion comprises:

- US\$13.8 billion as term debt (March 2022: US\$15.2 billion);
- US\$1.0 billion of short-term borrowings (March 2022: US\$0.7 billion); and
- US\$0.5 billion of working capital loans (March 2022: US\$0.2 billion).

The maturity profile of term debt of the Group (totalling US\$ 13.8 billion) is summarised below:

Particulars	As at 31 March 2023	As at 31 March 2022	FY2024	FY2025	FY2026	FY2027 & beyond
Debt at Vedanta Resources	7.2	9.1	3.0	2.9	0.5	0.8
Debt at subsidiaries	6.6	6.1	1.3	1.2	1.0	3.1
Total term debt <sup>1</sup>	13.8	15.2	4.3	4.1	1.5	3.9

1. Term debt excluding preference shares.

Cash and liquid investments stood at US\$ 2.6 billion at 31 March 2023 (31 March 2022: US\$ 4.4 billion). The portfolio continues to be invested in debt mutual funds, and in cash and fixed deposits with banks.

## Going Concern:

The Group has prepared the consolidated financial statements on a going concern basis. The Directors have considered a number of factors in concluding on their going concern assessment.

The Group monitors and manages its funding position and liquidity requirements throughout the year and routinely forecasts its future cash flows and financial position. The key assumptions for these forecasts include production profiles, commodity prices and financing activities.

Prior to current period, the last going concern assessment carried out for the period ended 30 September 2022 was approved by the Board of Directors in Dec 2022. The Directors were confident that the Group will be able to operate within the levels of its current facilities for the foreseeable future, that the Group will be able to roll-over or obtain external financing as required and that prices will remain within their expected range.

Since then, while the other mitigating actions as highlighted in the period ended 30 September 2022 financial statements remain available to the Group, several recent significant developments have had a positive bearing on the liquidity and company's ability to continue as going concern. [For more information, please refer to Note 1 of the Consolidated Financial Statements]

Notwithstanding the uncertainties, the Directors have confidence in Group's ability to execute sufficient mitigating actions. Based on these considerations, the Directors have a reasonable expectation that the Group and the Company will meet its commitments as they fall due over the going concern period. Accordingly, the Directors continue to adopt the going concern basis in preparing the Group's consolidated financial statements and Company's standalone financial statements.

### Covenant Compliance:

The Group's financing facilities, including bank loans and bonds, contain covenants requiring the Group to maintain specified financial ratios. The Group has complied with all the covenant requirements till 31 Mar 2023.

The Directors of the Group are confident that the Group will be able to comply with requisite covenants for the going concern period and will be able to execute mitigating actions [as per not©(c) of the Consolidated Financial Statements] to ensure that the Group avoids, or secures waivers or relaxations for future period breaches, if any, of its covenants during the going concern period.

### Credit rating:

"S&P Global ratings was maintained at 'B-' with stable outlook during FY2023. On 31<sup>st</sup> October 2022, Moody's downgraded the CFR to 'B3' from 'B2' and bond ratings to 'Caa1' from 'B3' with negative outlook as the Company had to obtain funding for its bonds maturing in April/ May 23 by October 2022 as expected by Moody's and their concerns over Vedanta Resources Ltd (VRL) refinancing needs over next 15-18 months period. On 3rd November 2022, VRL gave notice to Moody's for discontinuation of all its outstanding rating and subsequently there has not been any interaction or information sharing with them. Meanwhile, VRL continues to be in a comfortable position to address all its debt maturities with a strong balance sheet, robust liquidity at its operating subsidiaries and strong track record of raising funds through relationship banks."

### Balance sheet:

Particulars	<i>(US\$ million, unless stated)</i>	
	31 March 2023	31 March 2022
Goodwill	12	12
Intangible assets	64	90
Property, plant and equipment	12,786	13,484
Exploration and Evaluation Assets	284	220
Other non-current assets	3,339	2,963
Cash, liquid investments	2,765	4,445
Other current assets	4,180	4,411
<b>Total assets</b>	<b>23,430</b>	<b>25,625</b>
Gross debt	(15,358)	(16,082)
Other current and non-current liabilities	(8,944)	(8,008)
<b>Net assets</b>	<b>(872)</b>	<b>1,535</b>



Shareholders' equity	(3,348)	(3,113)
Non-controlling interests	2,476	4,648
<b>Total equity</b>	<b>(872)</b>	<b>1,535</b>

Shareholders' (deficit)/equity was US\$(3,348) million at 31 March, 2023, compared with US\$(3,113) million at 31 March 2022. Non-controlling interests decreased to US\$ 2,476 million at 31 March 2023 (from US\$4,648 million at 31 March 2022).

### Property, plant and equipment (including exploration and Evaluation Assets)

As on 31 March, 2023, PPE was at US\$13,070 million (FY2022: US\$ 13,704 million). The decrease of US\$ 634 million was mainly due to FCTR~US\$ 1,039 million, depreciation charge US\$ 1,382 million, net disposals of US\$ 243 million, impairment of US\$61 million partly offset by additions of \$2,121 million (Aluminium division \$708mn, Zinc India \$475 mn, Oil & Gas \$433 mn, Zinc International \$158mn, Iron ore \$70 mn & Power \$74 mn)

### Contribution to the exchequer

The Group contributed US\$ 9.4 billion to the exchequer in FY2023 compared to US\$ 7.4 billion in FY2022 through direct and indirect taxes, levies, royalties, and dividend, which was made by Vedanta Resources Limited.

## Project capex

Capex in Progress (In \$ mn)	Status	Approved Capex <sup>2</sup>	Spent up to FY2023 <sup>3</sup>	Spent in FY23	(US\$ million) Unspent <sup>4</sup> as on 31 <sup>st</sup> Mar 2023
<b>Cairn India<sup>1</sup> – Mangala, Bhagyam &amp; Aishwariya infill, OALP, ABH infill, RDG infill, Shale, Offshore infill etc</b>		1,069	188	392	489
<b>Aluminium Sector</b>					
Jharsuguda VAP capacity expansion and others	In progress	418	116	79	223
Coal Mines (Jamkhani, Radhikapur, Kurloi, Ghoghrapalli)	In Progress	920	44	43	833
Lanjigarh Refinery: 2 to 5 MTPA	In Progress	641	89	188	364
Balco smelter and VAP capacity expansion	In Progress	1,146	15	91	1040
<b>Zinc India</b>					
Mine expansion		2,077	1,809	41	227
Roaster (Debari)	In Progress	101	-	1	100
Others		483	156	21	306
<b>Zinc International</b>					
Gamsberg Phase II Project	In Progress	466	-	53	413
Iron Ore Project	In Progress	37	9	11	17
<b>ESL</b>					
1.5 to 3 MTPA hot metal		349	10	78	261
<b>Avanstrate</b>					
Furnace Expansion and Cold Line Repair		203	80	41	82
<b>Capex Flexibility</b>					
<b>Metals and Mining</b>					

Tuticorin Smelter 400ktpa	Project is under Force Majeure	717	198	1	518
Skorpion Refinery Conversion	Currently deferred till Pit 112 extension	156	17	-	139

1. Capex approved for Cairn represents Net capex, however Gross capex is US\$1.4 bn
2. Based on exchange rate prevailing at time of approval.
3. Based on exchange rate prevailing at the time of incurrence.
4. Unspent capex represents the difference between total capex approved and cumulative spend as at March 31, 2023

## Operational review

### ZINC INDIA

#### The year in brief

Mine production progressively improved during the year with ore production for the full-year up 2% YoY to deliver a record 16.74 million tonnes, supported by strong production growth at Rajpura Dariba Mine, SK Mines and Rampura Agucha mine, which were up 11%, 7% and 6% respectively. Mined metal production was up 4% YoY to 1,062 kt primarily on account of higher ore production, improved mined metal grades and operational efficiencies.

#### Occupational health & safety

In line with our commitment to ensure zero harm to employees, the leadership has undertaken the prime responsibility of providing a safe workplace for all employees entering our premises. While committed to operate a business with 'Zero Harm', it is with deep sadness that we report the loss of six business partners colleagues and one HZL employees in work-related incidents at our managed operations. These incidents happened despite our constant efforts to eliminate fatalities and attain a Zero Harm work environment. A thorough investigation was conducted to identify the causes of these incidents and to share the lessons learned across Hindustan Zinc, to prevent similar incidents in the future.

LTIFR for the year was 0.70 as compared to 0.81 in FY2022.

During the year, to avoid fatalities and catastrophic incidents in HZL, Vihan: A Critical Risk Management (CRM) initiative was launched to improve managerial control over rare but potentially catastrophic events by focusing on the critical controls. We have launched four critical risks i.e., Fall of Ground (FOG), Fall of person/object from height (WAH), Vehicle Pedestrian Interaction (VPI) and Entanglement. Through this initiative, we want to ensure that all identified critical controls are being monitored and systems are in place.

Safety Pause was also conducted across all our operational units under the theme 'Stop Work if it's no Safe'. During this connect all recent safety incidents happened across group companies were discussed and key learnings were shared.

Community of Practice - Structure Stability established during the year to establish a review mechanism of all prevailing civil and mechanical structures; further a specific categorization was founded to mark the structures based on which their repair/ replacement is planned.

Second half of the year has been an era of innovation for mining operations to avoid manual intervention and related risk with inclusion of: Single point remote blasting over wi-fi at pilot level, digitalized drilling of production stopes during blasting operations in which no manpower is present and machine drills in auto mode with interlock features of approaching man, Digital RFID based cap

lamps along with proximity sensors to ensure real time tracking and monitoring of personnel working in underground and Digital interlockings have been developed to stop over winding operation during excess of mud/ water at shaft bottom.

Training and capability building was also core theme during the year. Few key programmes are first underground practical cum digitized training gallery developed at RAM to provide all facility of surface training to underground operations team, Wi-Fi Network available at training place so that underground manpower can connect from underground to any kind of seminars/ trainings, safety leadership development program initiated for mines frontline supervisor through ex-DGMS officials and Dupont. RAM has also launched a unique virtual reality-based simulator training for jumbo operator.

Response during any emergency is a paramount parameter to ensure safety of the people. As a proactive measure, we have conducted ERCP (Emergency Response and Crisis Plan) Gap Assessment study across all the sites. 51<sup>st</sup> All India Mines Rescue Competition was hosted under the aegis of DGMS at Rajpura Dariba Complex. 10 days Capacity Building Training Programme on Disaster Management was conducted at ZM, this included medical first responder, collapsed structure search & rescue, fire management, chemical emergencies, etc. RAM has reaffirmed safety & rescue by establishing Underground Fire Tender with remote operated foam unit and thermal imaging camera for blind zones.

Demonstrating the highest standards of health and safety management during the year, Dariba Smelting Complex received the prestigious 'Sword of Honour' from British Safety Council for showing excellence in the management of health and safety risks at work. Kayad Mines received 5 Star Rating Award in Safety and Welfare by Rajasthan Govt and Jaswant Singh Gill Memorial industrial safety excellence award 2022 in underground Metal mine in India.

## Environment

Hindustan Zinc commits to 'Long-term target to reach net-zero emissions by 2050' in line with Science Based Targets initiative (SBTi) aiming to have a clear and defined path to reduce emissions in line with the Paris Agreement goals. To achieve the target, we are working towards improving our energy efficiency, switching to low carbon energy sourcing, introducing battery operated electrical vehicles and increasing the role of renewables in our energy mixes.

We have entered into a power delivery agreement for supplying 450 megawatts of renewable power by 2025 which will not only strengthen our commitment towards a clean future but also help reduce emissions to the tune of 2.7 million TCO<sub>2</sub>e. Also, Pantnagar metal plant is sourcing 100% green power for its operations thus making it one-of-a-kind initiative, leading towards reducing emissions by 30,000 TCO<sub>2</sub>e.

Technology and digitalisation are key to strengthening our ESG footprint and creating a net-zero future. It is our ambition to convert all our mining equipment to battery-operated Electric Vehicles (EVs). To make our mining operations environment-friendly, we plan to invest US\$ 1 billion over the next five years towards combatting climate change impacts.

Electric Vehicles (EVs) are a globally recognised means to alleviate dependence on petroleum products and reduce CO<sub>2</sub> emissions. Therefore, Hindustan Zinc signed a Memorandum of Understanding (MoU) with Epiroc Rock Drills AB, Normet Group Oy and Sandvik AB to introduce battery electric vehicles (BEV) in its underground mining operations making Hindustan Zinc the first company in India to introduce battery-operated vehicles in underground mines.

HZL has led by example by inducting LNG powered truck for transportation which shall contribute 30% lesser towards GHG emission. We are also using 5% biomass for power generation and reducing carbon footprint through our captive thermal power plants.

In-line with HZL's policy of a green value chain, our business partners have also started operating Electric vehicles, several electric forklifts have been introduced in our multiple business units.

At HZL, we recognize the reality of climate change. Therefore, our risk management processes embed climate change in the understanding, identification, and mitigation of risk. We have published our second TCFD (Task Force on Climate-related financial disclosure) report during the year which sets the adoption of the TCFD framework for climate change risk and opportunity disclosure.

Endeavoring towards sustainable organization we have relooked our materiality matrix and established the ESG governance at tier 3 level as well as at SBU level to implement ESG projects on ground.

Hindustan Zinc joins the Taskforce on Nature-Related Financial Disclosures (TNFD) piloting with ICMM to access the challenges in implementing LEAP process of TNFD.

Miyawaki afforestation was completed at DSC and CLZS. 12,000 Indigenous Plants and 6,500 native seeds planted in the area of 1 hectare at each of the location to create a self-sustaining forest in the span of 3 years. 3 years Engagement with IUCN has initiated, under this Prepared IBAT (Integrated Biodiversity Assessment Tool) Report for all Rajasthan based locations identifying species present in the core area, Reframed Biodiversity Policy of HZL, Ecosystem Service review conducted across the Rajasthan based locations and Biodiversity risk assessment and site visit by IUCN team members for one season completed. These studies will help HZL to prepare a strategy to achieve 'No Net loss' towards biodiversity. Green cover study done by SRSAC (State Remote Sensing Application Centre, Jodhpur) for all Rajasthan Based locations of HZL.

One of the most notable achievements has been the successful commissioning of a 3,200 KLD Zero Liquid discharge (RO-ZLD) plant at the Dariba Smelter. Apart from that, Zawar (ZM) and Rampura Agucha Mine ZLD projects of 4,000 KLD capacity each have been initiated to improve recycling and strengthen the zero discharge. Like ZM, dry tailing plant at Rajpura Dariba Mine is also under final stage of commissioning and will result in significant amount of water recovery from the tailings.

Site Inspection and updated GISTM (Global Industry Standard on Tailing Management) Conformance Assessment completed by ATC Williams for all TSF (Tailing Storage Facility). Environment Product Declaration (a Type 3 Ecolabel) for zinc product published.

Public hearing was conducted successfully at CLZS for proposed enhancement of zinc production capacity from 504 to 630 kt and installation of Induction Furnace, Slab Casting Line, RZO Unit, change in product mix in Pyro unit on total metal basis & Installation of lead refinery & minor metal complex etc.

## Production performance

Production (kt)	FY2023	FY2022	% Change
Total mined metal	1,062	1,017	4%
Refinery metal production	1,032	967	7%
Refined zinc – integrated	821	776	6%
Refined lead – integrated <sup>1</sup>	211	191	10%
Production – silver (in tonnes) <sup>2</sup>	714	647	10%

1.Excluding captive consumption of 7,912 tonnes in FY2023 vs. 6,951 tonnes in FY2022.

2.Excluding captive consumption of 41.4 tonnes in FY 2023 vs. 37.4 tonnes in FY 2022.

## Operations

For the full-year, ore production was up 2% YoY to 16.74 million tonnes on account of strong production growth at Rajpura Dariba Mine, SK Mines and Rampura Agucha mine, which were up 11%, 7% and 6% respectively. FY2023 saw the best-ever Mined metal production of 1,062,089 tonnes compared to 1,017,058 tonnes in the prior year in line with higher ore production across Mines supported by better metal grades and operational efficiencies.

For the full year, we saw our ever-highest metal production, up 7% to 1,032 kt in line with better plant and MIC availability, while silver production was 10% higher at 714 tonnes in line with higher lead metal production.

## Prices

Particulars	FY2023	FY2022	% Change
Average zinc LME cash settlement prices US\$ per tonne	3,319	3,257	2%
Average lead LME cash settlement prices US\$ per tonne	2,101	2,285	(8%)
Average silver prices US\$/ounce	21.37	24.58	(13%)

FY 2023 started well with the prices around ~US\$ 4,000/t. With the impact of the Russia Ukraine War, lockdown announced in China and US GDP contraction, zinc prices hovered around US\$ 4,400/t for most of Apr'22 and ended at US\$ 4,100/t. In the month of May, prices went down to US\$ 3,499/t over concerns on economic slowdown in the US and China. Prices again rebounded above US\$ 4,000/t driven by increased expectation of a stimulus from the Chinese government to support growth in order to offset the impact of the coronavirus. However, in Q3 FY 2023, negative sentiment of the market pushed down the LME prices in Oct'22 and reached to US\$ 2,682/t on 3<sup>rd</sup> Nov'22, lowest since Feb'21. With the sudden end to China's zero-Covid policy at the end of CY 2022 and the prospect of Chinese demand rebound, the faith in base metals has been restored in investors. This gave the much-needed boost and prices rose above US\$ 3,400/t in January 2023, with monthly average of US\$ 3289/t. However, the trend has not lasted for long and prices have corrected to US\$ 2956/t in March 2023.

In long term, the prices will be pressured by growing surpluses. The higher zinc prices in recent years have encouraged the development of a significant amount of new mine projects. However, the smelter capacity suggests not all of this new mined output will be processed, leading to concentrate surpluses. At the same time, smelter output growth is forecast to outpace demand growth. This, in turn, will lead to a significant refined stock build. As the cumulative surplus becomes unsustainably large, prices will fall lower to rebalance the market.

## Zinc Demand – Supply

<b>Zinc Global Balance In kt</b>	<b>CY 2021</b>	<b>CY 2022</b>	<b>CY 2023 E</b>
<i>Mine Production</i>	13094	12862	13080
<i>Smelter Production</i>	13867	13489	13855
<i>Consumption</i>	14147	13587	13794

Source: Wood Mackenzie, March STO

Global demand witnessed contraction in CY 2022, decreasing by 3.9% to 13.6 million tonnes, largely due to the fall in Chinese demand. At supply level, the refined zinc metal production fell by 3%, as several smelters closed for care and maintenance across the world owing to the increase in energy prices. The global mined zinc production is expected to grow stronger during 2023 to 2026 period as there will be new mine projects ramping up. And it is expected that the production will grow in 2023 to 13.8 million, by 3.8%, and reach 15 million by 2026.

The global zinc warehouse stocks also fell during this period due to supply constraints. The total tonnage of zinc in the Shanghai Futures Exchange (SHFE) warehouses fell to 20 kt at the end of December'22 and settled at 97 kt at the end of March'23, from 176 kt in April'22. And the London Metal Exchange (LME) stocks stood at 45 kt at the end of the March'23, down from 140 kt in April'22.

The Indian economic environment has remained optimistic. The same was reflected by the S&P Global Manufacturing PMI which stood at 56.4 in March'23 as compared to 54.7 in April'22 and 55.3 in February'23, reflecting expansion in manufacturing sector. The Indian automobile industry is on a growth trajectory, with 13.5% increase in production to reach 227 lakh units till February 2023 from April 2022, compared to the same period in the previous fiscal. The passenger vehicle sales stood at 29 lakh units, marking a growth of 30% over the same period in the previous year. (Source: SIAM & SP Global Index)

The finished steel domestic production was at 110.44 million tonnes during April 2022 to February 2023, up by 7.2% over the same period in the previous year. Consumption in domestic market during the same period stood at 108.15 million tonnes, up by 12.6%. The total net finished steel exports till February 2023 stood at 5.90 million tonnes, down by 52% over same period in the previous financial year on account of export duty levy. (Source: MIS Report on Iron & Steel by JPC)

The overall domestic demand for primary zinc in this financial year has seen growth rate of 3.8% compared to last year, reaching pre COVID levels, and it is expected to grow further by 4% in FY 2024.

### Unit costs

Particulars	FY2023	FY2022	% Change
Unit costs (US\$ per tonne)			
Zinc (including royalty)	1,707	1,567	9%
Zinc (excluding royalty)	1,257	1,122	12%

For the full year, zinc COP excluding royalty was US\$1,257/t, higher by 12% YoY (21% higher in ₹ terms). The COP has been affected by higher coal & commodity price increase partially offset by benefits from better volumes, operational efficiencies & recoveries.

### Financial performance

(US\$ million, unless stated)

Particulars	FY2023	FY2022	% change
Revenue	4,126	3,844	7%
EBITDA	2,177	2,170	0%
EBITDA margin (%)	53%	56%	-
Depreciation and amortisation	389	377	3%
Operating Profit before special items	1,788	1,793	(0%)
Share in Group EBITDA (%)	47%	35%	-
Capital Expenditure	466	378	23%
Sustaining	402	339	19%
Growth	64	39	65%

Revenue from operations for the year was US\$ 4,126 million, up 7% YoY, primarily on account higher metal & silver production, higher Zinc LME prices, gains from strategic hedging partially offset by lower lead and silver prices.

EBITDA in FY2023 broadly stable vs FY 2022 to US\$ 2,177 million. This was primarily driven by improved metal and silver volumes, higher Zinc LME prices, gains from strategic hedging partly offset by higher costs and lower lead & silver prices.

## Projects

In HZL's journey to achieving 1.25 mtpa MIC expansion, the final project of RD Beneficiation plant revamp is under execution at RD Mines and is scheduled to be commissioned in Q1 FY24. Final commissioning of Fumer plant is delayed due to VISA issues of OEM from China. The plan is to complete commissioning of plant through OEM support in Q1 FY24. For further phase of expansion of Mines and Smelters, studies are under progress and results are expected in FY24.

The capacity of smelters is being enhanced by putting up a new Roaster in Debari with latest technologies. The order placement is targeted by Q1 FY24.

A new project of Hindustan Zinc Alloys ordered in Q1 FY 2023 is under execution and scheduled for completion in Q1 FY24. HZL is also setting up new Fertiliser Plant in Chanderiya for which partner has been locked in. Formal order placement is scheduled to be completed in Q1 FY24. Project is scheduled for completion in 24 months.

## Exploration

Zinc India's exploration objective is to upgrade the resources to reserves and replenish every ton of mined metal to sustain more than 25 years of metal production by fostering innovation and using new technologies. The Company has an aggressive exploration program focusing on delineating and upgrading Reserves and Resources (R&R) within its license areas. Technology adoption and innovations play key role in enhancing exploration success.

The deposits are 'open' in depth, and exploration has identified number of new targets on mining leases having potential to increase R&R over the next 12 months. Across all the sites, the Company increased its surface drilling to assist in Resource addition and upgrading Resources to Reserves.

In line with previous years, the Mineral Resource is reported on an exclusive basis to the Ore Reserve and all statements have been independently audited by SRK (UK).

On an exclusive basis, total ore reserves at the end of FY 2023 totalled 173.49 million tonnes and exclusive mineral resources totalled 286.56 million tonnes. Total contained metal in Ore Reserves is 9.64 million tonnes of zinc, 2.7 million tonnes of lead and 310.2 million ounces of silver and the Mineral Resource contains 12.8 million tonnes of zinc, 5.66 million tonnes of lead and 545.7 million ounces of silver. At current mining rates, the R&R underpins metal production for more than 25 years.

## Strategic Priorities & Outlook

Our primary focus remains on enhancing overall output, cost efficiency of our operations, disciplined capital expenditure and sustainable operations. Whilst the current economic environment remains uncertain our goals over the medium term are unchanged.

### Our key strategic priorities include:

- Further ramp up of underground mines towards their design capacity, deliver increased silver output in line with communicated strategy.
- Sustain cost of production in the range of US\$ 1,125- US\$ 1,175 per tonnes through efficient ore hauling, higher volume & grades and higher productivity through ongoing efforts in automation and digitization.
- Disciplined capital investments in minor metal recovery to enhance profitability.
- Increase R&R through higher exploration activity and new mining tenements, as well as upgrade resource to reserve.

- Progressing towards sustainable future with continued efforts towards reduction in GHG emissions, water stewardship, circular economy, biodiversity conservation and waste management.

## **ZINC INTERNATIONAL**

During FY2023, Zinc International continued to ramp up production at Gamsberg mine and achieved record production of 208kt. This was mainly due to increase in tonnes treated and plant recoveries compared to previous financial year.

Black Mountain continued to have a stable production of 65kt, which is significantly higher than FY 2022 due to higher lead head grades and recoveries.

Skorpion Zinc has been under Care and Maintenance since start of May 2020, following cessation of mining activities due to geotechnical instabilities in the open pit. Activities to restart the mine are still in progress.

### **Occupational Health & Safety**

At VZI, we take the health and safety of our employees and stakeholders very seriously and we remain committed to communicating timeously and transparently to all stakeholders.

Airborne particulate management remains a key focus in reducing lead and silica dust exposures of employees (Exposure Reduction to Carcinogenic). VZI had 17 blood lead withdrawals for FY 2023, against more stringent limits than required by law. We have strengthened our Employee Wellness Programme, focussing on the increased participation of employees and communities in VCT for Aids / HIV, blood donation and wellness.

VZI is embarking on a real time monitoring strategy and additional controls at source to reduce and eliminate exposures to both silica and lead.

The VZI LTIFR Improved from 1.41 in FY2022 to 0.75 in FY2023. The TRIFR improved from 5.6 in FY2022 to 3.1 in FY2023, both improving by 46% and 44% respectively. VZI remained fatality free during FY2023, and Black Mountain Mine achieved LTI free year. These remarkable achievements were necessitated by VZI's strong commitment to Zero harm principle and a belief that everybody coming to VZI must return home safe and healthy every day.

Leading Indicators reporting, Leadership Engagements and Critical Risk Management were the strategic initiatives central to these record setting achievements. VZI shall, in collaboration with the Mineral Council and Vedanta Group continue to seek for leading practices to continually improve our HSE performance.

### **Environment**

VZI has secured Portion 1 of the farm Wortel 42 as the fifth Biodiversity Offset Property and has presented the property to the Department of Agriculture, Environmental Affairs, Rural Development and Land Reform (DAERDLR). Once the property is transferred to BMM's name, there will be declaration of this property as a Protected Area, as an inclusion to the Gamsberg Nature Reserve Protected Area under the National Environmental Management Protected Areas Act, 2003 (Act No.57 of 2003). This is a requirement of Clause of the Biodiversity Offset Agreement (BOA). BMM is in negotiations with landowners to secure the remaining two farms by 1 April 2024 to ensure compliance to Clause 6 of the BOA.

The Second Independent Audit on the Implementation of the BOA between BMM and DAERDLR commenced October 2022 and the draft reports have been submitted to the implementation parties



(BMM and DAERDLR) for comments and review. The final report will be available by end of March 2023 with a large improvement since the previous audit. The final report will be published in VZI Annual Report and on the VZI webpage as required by the BOA.

The implementation of the nine Biodiversity Monitoring Protocols has been completed for a test year and will be revised and updated in April 2023 for long-term implementation. BMM are awaiting verification of the status of No Net Loss that was monitored and measured as part of the implementation of the Biodiversity Monitoring Protocols and a statement regarding the findings and verification will be shared.

The installation of a dedicated anti-poaching surveillance camera network, covering a circular route of more than 400km show good results and according to statistics received from South Africa Police Services (SAPS) and the Agri Namakwaland the surveillance camera network has resulted in a large decrease in petty crime in the area. However, incidents of poaching outside the surveillance cameras are still reported on an ad hoc basis as poachers adjust their modus operandi. An Antipoaching workshop between IUCN, BMM, DAERDLR, South Africa Biodiversity Institute (SANBI), SAPS and key role players in the area are planned for April 2023.

## Production performance

\* The mine is under care & maintenance since May'20 onwards

Particulars	FY2023	FY2022	% Change
Total production (kt)	273	223	22%
Production – mined metal (kt)			
BMM	65	52	25%
Gamsberg	208	170	22%

## Operations

During FY2023, total production stood at 272,713 tonnes, 22% higher YoY. This was primarily due to tonnes treated and higher recoveries.

At BMM, production was 65,112 tonnes, 25% higher YoY. This was mainly due to 8.9% higher throughput at 1.7 million tonnes, higher lead grades (3.0% vs 2.1%) and recoveries (82.8% vs 81.6%) offset by lower grades of zinc (1.8% vs 2.1%) and recoveries (71.9% vs 75.2%).

Gamsberg's production was at 207,601 tonnes as the operation continues to ramp up with improved performance during current financial year. Higher production at Gamsberg YoY is attributable to 7.8% increase in throughput to 4.2 million tonnes, higher zinc grades (6.5% vs 6.2%) and recoveries (75.7% vs 69.9%).

At Skorpion Zinc engagement with technical experts to explore opportunities of safely extracting the remaining ore is ongoing. The pit optimization work is complete. The business is currently evaluating options to restart mining.

## Unit costs

Particulars	FY2023	FY2022	% Change
Overall Zinc COP including TcRc (US\$/t)	1,577	1,442	9%
Gamsberg Zinc COP excluding TcRc (US\$/t)	1,033	1,168	(12%)

Gamsberg COP excluding TcRc decreased by 12% to US\$ 1,033 per tonne. This reflects the strength and efficiency of our operations at Zinc International. The decrease in the cost of production was driven by higher production supported by local currency depreciation against the USD despite high input commodity inflation.

Overall Zinc COP including TcRc increased by 9% to US\$1,577 per tonne, from US\$1,442 per tonne in the previous year. This was mainly driven by commodity price inflation and higher treatment and refining charges, offset by higher production and local currency depreciation against the USD.

## Financial performance

Particulars	<i>(US\$ million, unless stated)</i>		
	FY2023	FY2022	% change
Revenue	649	602	8%
EBITDA	241	206	17%
EBITDA margin (%)	37%	34%	-
Depreciation and amortisation	61	69	(12%)
Operating Profit before special items	180	137	31%
Share in Group EBITDA (%)	5%	3%	-
Capital Expenditure	144	133	8%
Sustaining	68	133	(49%)
Growth	76	-	-

During the year, revenue increased by 8% to US\$649 million, driven by higher sales volumes compared to FY2022 due to 22% higher production at BMM Gamsberg, higher zinc LME prices partially offset by lower lead and silver prices.

EBITDA increased by 17% to US\$ 241 million, mainly on account of improved operational performance, higher zinc LME price, favourable exchange rates movement partially offset by lower lead & silver prices and increase in TC/RC.

**Refinery Conversion** – The Skorpion Refinery Conversion project has reached Ready-to-order phase, post completion of FEED, feasibility study, tendering activities & techno-commercial adjudication and contract finalization. All regulatory approval is in place to start project execution.

With power tariffs being very critical for the viability of the project, discussions / negotiations are in progress with the state power utility along with the option of renewable power which is also being explored. We are only waiting for confirmation of power tariff to take the final decision and starting the execution on the ground by H1 FY24.

**Gamsberg Phase 2** – Gamsberg Phase 2 project includes the mining expansion from 4 MTPA to 8 MTPA and Construction of New Concentrator plant of 4 MTPA, taking the total capacity to 8 MTPA

and was approved by the Vedanta Board in Q4 FY 2022. The EPC partner, Onshore, has been appointed in Q1 FY 2023, site mobilization completed, detailed engineering is under progress and the project is in execution phase. All Major Long lead FIMs {Ball & Sag Mill (CITIC), Crusher, Floatation, Filter Presses and Thickeners Package (MO)} Orders placed.

- Cumulative progress – Engineering – 61.79%; Procurement – 35.17%; Construction - 1.57%; Overall project – 16.26%
- Transformer and 11KV Switchgear partner are locked in.
- Crusher House & LV Substation Foundation Works-In-Progress.
- Wet TSF Design under progress – Geo Chemical investigation completed. Geotech investigation in progress
- External Power & Water package –Site established, and work started.
- Workmen Camp & Site Office Establishment – In progress.

**Gamsberg Smelter** – The Gamsberg Smelter Project is re-defined with phased approach wherein 210 KTPA capacity phase 1 will be executed by repeating the available HZL smelter design incorporating necessary modifications required to treat Gamsberg Concentrate. The partner selection is in progress for various EPC / EP + C packages. We have appointed ThyssenKrupp (TKIS-India) as Owner's engineer. The techno-commercial proposals with Shapoorji & L&T as the prospective EP Partners. Construction Tender released on 23<sup>rd</sup> Nov'22.

- RFQs for all FIMs released
- Construction Tender released on 23<sup>rd</sup> Nov'22. Offers are received and are under Commercial negotiations.
- The techno-commercial proposal for EPC 1 (on EP basis) is received from Shapoorji and it is under commercial adjudication. L&T 's offer is awaited.
- Pre bid meeting conducted with all prospective partners for Renewable Power. Proposals received from 4 vendors.

We have received the environmental approval for the Smelter & Bulk water pipeline construction. The Smelter EC is currently under appeal phase. We are also engaging with Gov. of South Africa on the other critical success factors like SEZ, power price, sulphuric acid offtake, logistics infrastructure and balance regulatory approvals which are vital for economic feasibility of the project.

**Black Mountain Iron Ore project** – This is a project to recover iron ore (magnetite) from the BMM fresh tailings. EPC's detailed engineering, procurement, earthworks, and major fabrication are completed. Construction is currently at 76.4% completion. Project being relooked for repurposing under guidance of CEO, Zinc Business.

## Exploration

0.3% increase in resources from 27.20 million tonnes to 27.29 million tonnes metal and 4.4% reduction in reserve metal tons from 7.9 million tonnes to 7.6 million tonnes.

Total R&R for VZI decreased from 671 million tonnes to 659 million tonnes of ore, while metal decreased from 35.1 million tonnes to 34.87 million tonnes (0.7% decrease in total metal)

Reduction in reserves largely attributable to mining depletions and the slight increase in resources due to addition of metal tons at Kloof which was offset by an increase in transport/operating costs and increased dilution which impacted the cut-offs used.

## **Strategic Priorities & Outlook**

Zinc International continues to remain focused to improve its production by sweating its current assets beyond its design capacity, debottlenecking the existing capacity, and adding capacity through growth projects. Our Immediate priority is to ramp up the performance of our Gamsberg Plant to designed capacity and simultaneously complete Gamsberg Phase 2 project to add another 190kt to the total production of VZI. Likewise, BMM continues to deliver stable production performance and focus is to debottleneck its ore volumes from 1.8 million tonnes to 2.0 million tonnes. Skorpion is expected to remain in Care and Maintenance while management is assessing feasible & safe mining methods to extract ore from Pit 112. Zinc International continues to drive cost reduction programme to place Gamsberg operations on 1<sup>st</sup> Quartile of global cost curve with COP < US\$1,100 per tonne.

Key strategic priorities include the following:

- Completion of construction activities of Gamsberg Phase 2 project with aim to start production in H2 FY2024.
- Continue to improvise business case of Skorpion Refinery Conversion Project and Gamsberg Smelter Project through Government support, Capex and Opex reduction.

## **OIL & GAS**

### **The year in summary:**

During FY 2023, Oil & Gas business delivered gross operated production of 143 kboepd, down by 11% YoY, primarily driven by natural reservoir decline at the MBA fields. The decline was partially offset by addition of volumes through new infill wells brought online in Mangala, Bhagyam and Raageshwari Deep Gas fields. Offshore assets were supported by gains from the infill drilling campaign across both assets, Ravva and Cambay.

In OALP blocks, we have secured 8 blocks in DSF-III round and one Coal Bed Methane (CBM) Block in special CBM round 2021.

### **Occupational Health & Safety**

There was one lost time injuries (LTIs) in FY2023. Frequency rate stood at 0.03 per million-man hours (FY2022: 0.20 per million-man hours).

Our focus remains on strengthening our safety philosophy and management systems.

Cairn Oil & Gas has taken various initiatives:

- “5S” certification for Mangala, Raageshwari and Aishwarya Mines.

- Established Mines Vocational Training Center at RJ Oil, Barmer.
- Project CSUSP (Cairn Sustainability & Safety Performance Program), a journey to improved, sustainable and increased safety performance initiated
- Digital initiatives: NLP (Natural Language Processing) based Safety Observation Reader, Training through Virtual Reality Headsets, QR code based tracking system for fire cylinders.
- Artificial intelligence-based safety surveillance system installed across locations.
- COVID-19 mass booster dose vaccination drive for employees, their family members and business partners.

## Environment

Our Oil & Gas business is committed to protect the environment, minimize resource consumption and drive towards our goal of 'zero harm, zero waste, zero discharge'. Highlights for FY2023 are as below:

- Cairn Oil & Gas declared as Water Positive Company with NPWI (Net water positive impact) index of 1.12. Four of our sites RJ Oil, RJ Gas, Midstream and Ravva) are also individually declared as water positive assets.
- **Biodiversity/wildlife conservation initiatives**
  - MoU signed with District Forest Office, Rajasthan and Gujrat for plantation of 0.35 million tree over 700 hectares in Barmer district and development of 60-hectare mangroves forest in Sural Coastal area respectively.
  - Biodiversity assessment completed with objective to draw No Net Loss or Net Positive Impact
  - Drinking water facility developed for wild animals at Dhorimanna Hilly Forest Area, Barmer
  - Revival of Khejari in Thar Ecosystem through Agro forestry and distributed 300 saplings to community farmers
  - Published book "Know Your Flora – A Glimpse of Thar Ecosystem" and video on "Ravva Biodiversity - Photo Journey of a Nurtured Ecosystem".
- **Reduction in GHG emission:**
  - a. Cairn signed Power Purchase Agreement (PPA) for 25 MW renewable energy with Serentica Renewable 3 India Pvt Ltd.
  - b. Installation of 150+ Solar lights at Mangala Processing Terminal & well pads for renewable power generation ~32,000 units/annum.
  - c. Reduction in RDG flare by tuning the control valve of condensate flash drum (CFD) & Stabilizer column & recycle gas compressor optimization with annual GHG Reduction potential of 17,300 tonnes of CO<sub>2</sub>e/annum
  - d. Solar rooftop installed on 10 AGIs (above ground installations) for pipeline operations (Annual GHG reduction potential of 208 tonnes of CO<sub>2</sub>e/annum).
  - e. Installation of 220 KWP of Solar Rooftop at RJ Gas and 130 KWP at Radhanpur Terminal (Annual GHG reduction potential of ~440 tonnes of CO<sub>2</sub>e/annum).
  - f. Commissioned 10 KWP Solar Plant at Cambay asset.
  - g. Introduced 5 new Electric Golf carts at RJ Gas for internal commuting.

- All Operating assets of Cairn (RJ Oil, RJ Gas, Midstream Operations, Ravva, and Suvali) have been certified as “Single Use Plastic free” premises.

Hydrocarbon recovery by processing of skimmed oil: ~27,000 bbls.

	Unit	FY2023	FY2022	% change
Gross operated production	Boepd	142,615	160,851	(11%)
Rajasthan	Boepd	119,888	137,723	(13%)
Ravva	Boepd	11,802	14,166	(17%)
Cambay	Boepd	10,777	8,923	21%
OALP	Boepd	147	39	-
Oil	Bopd	118,634	135,662	(13%)
Gas	Mmscfd	144	151	(5%)
Net production – working interest	Boepd	91,485	103,737	(12%)
Oil*	Bopd	76,149	87,567	(13%)
Gas	Mmscfd	92	97	(5%)
Gross operated production	Mmboe	52.1	58.7	(11%)
Net production – working interest	Mmboe	33.4	37.9	(12%)

\* Includes net production of 450 boepd in FY2023 and 535 boepd in FY2022 from KG-ONN block, which is operated by ONGC. Cairn holds a 49% stake.

## Operations

Average gross operated production across our assets was 11% lower YoY at 142,615 boepd. The company’s production from the Rajasthan block was 119,888 boepd, 13% lower YoY and from the offshore assets, was at 22,579 boepd, 2% lower YoY, owing to natural field decline. The decline has been partially offset by infill wells brought online across all assets.

Production details by block are summarized below.

### Rajasthan block

Gross production from the Rajasthan block averaged 119,888 boepd, 13% lower YoY. The natural decline in the MBA fields has been partially offset by infill wells brought online in Mangala, Bhagyam, ABH and RDG fields.

Gas production from Raageshwari Deep Gas (RDG) averaged 142 million standard cubic feet per day (mmscfd) in FY2023, with gas sales, post captive consumption, at 118 mmscfd.

On 26<sup>th</sup> October 2018, the Government of India, acting through the Directorate General of Hydrocarbons (DGH), Ministry of Petroleum and Natural Gas, granted its approval for a ten-year extension of the PSC for the Rajasthan block, RJ-ON-90/1, subject to certain conditions, with effect from 15<sup>th</sup> May 2020. The Division Bench of the Delhi High Court in March 2021 set aside the single judge order of May 2018 which allowed extension of PSC on same terms and conditions. We have filed a Special Leave Petition (SLP) in Supreme Court against this Delhi High court judgement.

We have served notice of Arbitration on the Gol in respect of the audit demand raised by DGH based on PSC provisions. The final hearing and arguments were concluded in September 2022. Post hearing briefs have been filed by the parties on 11<sup>th</sup> November 2022. It is our position that there is no liability arising under the PSC owing to these purported audited exceptions. The audit exceptions do not constitute demand and hence shall be resolved as per the PSC provisions.

Pursuant to GOI's approval for extension vide letter dated 26<sup>th</sup> October 2018, the parties have now executed the addendum for PSC extension for 10 years from 15 May 2020 to 14 May 2030 on 27<sup>th</sup> October 2022.

### Ravva block

The Ravva block produced at an average rate of 11,802 boepd, lower by 17% YoY, owing to natural field decline.

### Cambay block

The Cambay block produced at an average rate of 10,777 boepd, higher by 21% YoY, supported by gains from the infill well drilling campaign.

### Prices

Particulars	FY2023	FY2022	% change
Average Brent prices –US\$/barrel	96.2	81.2	18%

Crude oil price averaged US\$96.2 per barrel in FY2023, compared to US\$81.2 per barrel in FY2022. The continuous upward movement is mostly driven by supply constraints following Russia's invasion of Ukraine.

Early in the year, prices rose amid tight supply after a build in U.S. crude and gasoline stocks, limited spare capacity of OPEC and downfall in supply from Caspian Pipeline Consortium. Demand outlook remains clouded by increasing worries about an economic slump in the United States and Europe, debt distress in emerging market economies.

Further, faltering economic backdrop and weakening outlook for consumption caused a volatility in the oil prices. Interest rate hike by central banks around the world weighted on demand outlook and series of rate hikes by US Fed caused dollar to spiral to two decades high to make oil more expensive to the buyers holding currency other than dollar. COVID-19 restrictions in China and US administration releasing oil inventories from strategic reserve further eased the prices.

However, in March financial markets witnessed uncertainty, triggered by the turmoil in the US and European banking sector. Concerns about potential financial contagion effects and the risk that banking sector turmoil will extend to the economy pushed crude oil prices sharply down to 15-month lows at US\$ 75/bbl.

In April, decision by OPEC and allies to slash May production by 500,000 bopd in a bid to arrest the slump in prices provided floor to the prices.

### Financial performance

(US\$ million, unless stated)

Particulars	FY2023	FY2022	% change
Revenue	1,873	1,669	12%
EBITDA	972	809	20%
EBITDA margin (%)	52%	48%	-
Depreciation and amortisation	442	307	44%
Operating Profit before special items	500	502	(0%)
Share in Group EBITDA (%)	21%	13%	-
Capital Expenditure	474	233	-
Sustaining	14	9	63%
Growth	460	225	-

Revenue for FY2023 was 12% higher YoY at US\$ 1,873 million (after profit petroleum and royalty sharing with the Government of India), driven by higher oil prices, partially offset by lower sales volume.

EBITDA for FY2023 was at US\$ 972 million, higher by 20% YoY driven by higher brent prices and increase in capex recovery partially offset by lower volumes and increased cost.

The Rajasthan operating cost was US\$14.2 per barrel in FY2023 compared to US\$10.1 per barrel in the FY2022, primarily driven by increase in polymer commodity index, owing to oil price rally and increased well interventions to manage natural field decline.

## **A. Growth Projects Development**

The Oil & Gas business has a robust portfolio of infill development & enhanced oil recovery projects to add volumes in the near term and manage natural field decline. Some of key projects are:

### **Infill Projects**

#### **Bhagyam**

To accelerate production and augment reserves from Bhagyam field, infill drilling opportunities in FB1 and FB3 layers were identified. The project entails drilling of 11 infill producer and injector wells in FB3 layers and three horizontal wells in the bio-degraded zone.

As of March 31, 2023, 12 wells have been drilled, of which 7 wells are online.

#### **Aishwarya**

Based on the success of the polymer injection in Lower Fatehgarh (LF) sands of Aishwariya field, additional production opportunities were identified in Upper Fatehgarh (UF) sands. The project entails drilling of 25 infill wells in Upper Fatehgarh (UF) sands and conversion of 7 existing wells to UF polymer injectors.

As of March 31, 2023, 18 wells have been drilled, of which 8 wells are online.

#### **Tight Oil (ABH)**

Aishwariya Barmer hill infill drilling program established confidence in reservoir understanding of ABH. Based on its success, drilling of 14 additional wells were conceptualized.

Early acceleration of three wells has been completed during the fiscal year 2023. Drilling is to commence from first quarter of fiscal year 2024.

#### **Tight Gas (RDG)**

In order to realize the full potential of the gas reservoir, an infill drilling campaign of 27 wells has commenced during fiscal year 2022. As of March 31, 2023, 24 wells have been drilled of which 17 wells are online.

#### **Satellite Fields**

In order to monetise the satellite fields, 14 wells development campaign for 3 satellite fields (GSV, Tukaram, Raag Oil) was conceptualized. Drilling has been completed during fiscal year 2023 and they are being progressively hooked up to ramp up volumes.

#### **Cambay (Offshore)**

Infill program in Cambay over the last few years has resulted in incremental recovery. New opportunities had been identified basis integration of advanced seismic characterization, well and production data. Project has been completed during the second quarter of fiscal year 2023 and two wells are online.

#### **Ravva (Offshore)**

To augment reserve base and manage natural decline, infill opportunities were identified in Ravva asset. The project entails drilling of four exploration wells and 1 development well.



Project has been completed during the fourth quarter of fiscal year 2023 and success has been notified in two exploration wells and 1 development well which are online and producing. No hydrocarbons were observed in two wells and have been declared dry.

### **Discovered Small Field (DSF)**

**Hazarigaon:** Well intervention and testing activities were carried out in Hazarigaon-1 well and monetisation is underway. Production commenced from third quarter of fiscal year 2023.

## **B. Exploration and Appraisal**

### **Rajasthan - (BLOCK RJ-ON-90/1)**

#### **Rajasthan exploration**

The Rajasthan portfolio provides access to multiple play types with oil in high permeability reservoirs, tight oil and tight gas. We have completed drilling of 2 exploration wells and to unlock the potential of unconventional resources, we completed drilling of the first shale exploration well in Rajasthan during the fiscal year 2023. We are also evaluating further opportunities to drill low to medium risk and medium to high reward exploration wells to build on the resource portfolio.

### **Open Acreage Licensing Policy (OALP)**

Under the Open Acreage Licensing Policy (OALP), revenue-sharing contracts have been signed for 51 blocks located primarily in established basins, including some optimally close to existing infrastructure, of which 5 onshore blocks in the KG region have been relinquished.

Production commenced from Jaya discovery in Cambay region in third quarter of fiscal year 2023. This is first of its kind production facility where in sales through CNG cascade system are being done by an E&P operator from an exploration well site.

Drilling preparations are ongoing in the Offshore West-Coast to drill a moderate risk-high reward prospect (risked resource potential of 42 mmbob) within the Kutch-Saurashtra basin during the first quarter of fiscal year 2024. We intend to continue the exploration across Rajasthan, Cambay, and North-east in FY24 to unlock the full potential of the OALP blocks.

## **Strategic Priorities & Outlook**

Vedanta's Oil & Gas business has a robust portfolio mix comprising of exploration prospects spread across basins in India, development projects in the prolific producing blocks and stable operations which generate robust cash flows.

The key priority ahead is to deliver our commitments from our world class resources with 'zero harm, zero waste and zero discharge:

- Infill projects across producing fields to add volume in near term
- Define up to 20 potential new development projects to bring these Resources into production.
- Unlock the potential of the exploration portfolio comprising of OALP and PSC blocks
- Continue to operate at a low cost-base and generate free cash flow post-capex

## **ALUMINIUM**

### **The year in brief:**

In FY2023, the aluminium smelters achieved India's highest production of 2.29 million tonnes. It has been a remarkable year as we inched towards our vision of 3 MTPA Aluminium. Though this year we saw headwinds in cost due to rising commodity prices and the coal crisis but we undertook several structural initiatives to make our business immune from market induced volatilities. These reforms coupled with our continued focus on operational excellence, optimising our coal and bauxite mix,

improved capacity utilisation across refinery, smelter and power plant, will further help reduce our cost in sustainable manner, make the business more predictable and increasingly profitable. The hot metal cost of production for FY2023 stood at US\$ 2,324 per tonne. We have produced 1.79 million tonnes of calcined alumina at the Lanjigarh refinery.

## Occupational health & safety

We report with deep regret, one fatality of business partner employees during the year at Jharsuguda site. We have thoroughly investigated all the incidents and the lessons learned were shared across all our businesses to prevent such incidents in future.

This year, we experienced total 33 Lost Time Injuries (LTIs) resulting in LTIFR of 0.41 at our operations. Further, we have developed the V-SAFE portal for timely identification and reporting of safety hazard and rectification of the same.

Towards the goal of Zero Harm in Safety, the Lanjigarh Unit undertook numerous safety measures to improve workplace condition in terms of site infrastructure, safety system & safety culture. Noteworthy infrastructural improvements include safer access pathways for pedestrians and heavy vehicles across the site. Safety systems incorporated to improve safety are introduction of Driver Management Centre, monitoring of vehicles & safe driving parameters through smart cameras, speed detectors and Vehicle Tracking System. BALCO has onboarded the journey of “Vihan” - Critical Risk Management (CRM) and launched with five critical risks control this year.

The site has also implemented digitization project v-Unified (ENABLON) to manage safety through technological tools.

The Site is committed to ‘Refuse Work if it is Unsafe to Execute’ and empowered all site personnel to reject any activity that posed a possible safety concern.

## Environment

During the year, Jharsuguda has recycled 13.09% of the water used, while BALCO has recycled 10.76%. Our specific water consumption at VLJ metal was 0.20 m<sup>3</sup>/t, BALCO metal was 0.61m<sup>3</sup>/t and alumina refinery was 2.04 m<sup>3</sup>/t.

At Lanjigarh, biomass was co-fired in the boiler for the first time, with all defined safety measures to reduce GHG emissions (by 388 TCo<sub>2</sub>e) of the power plant. At BALCO, biomass was co-fired in the boiler for the first time (Qty: 5KT), with all defined safety measures to reduce GHG emissions (by 6,900 TCo<sub>2</sub>e) of the power plant. Also started using biodiesel for the first time in technological vehicles and Ladle cleaning shop. This is in line with the Vedanta de-carbonization and carbon neutrality plan.

EV vehicles will be used in operations as part of the green drive. Under this initiative, the Jharsuguda unit has deployed 27 Electric forklifts in place of diesel propelled forklifts. We have planned to shift to 100 % EV LMV by FY 30. This will help us eliminate our in-plant scope 3 GHG emission from LMV operations at the Jharsuguda business. BALCO has planned to shift 2 EV LMVs in current year for the reduction of scope-3 emission at BALCO business.

This year we produced 58 kt of Green Aluminium (YTD) under the brand name (Restora) with a potential to produce 100KTPA. This is a strong step towards our commitment to achieve GHG emission intensity reduction of 30% by 2030 and Net zero carbon by 2050.

Restora Ultra is an ultra-low carbon aluminium brand in collaboration with Runaya Refining. It has near zero carbon footprint – one of the lowest in the world. It is a testament to our focus on ‘zero waste’ through operational efficiencies and recovery from dross.

In the current fiscal year, we have reduced our GHG emission intensity by 8.3% compared to the FY 21 baseline. We have purchased 1323 MU of Green Power Mar’23 YTD and co-fired 5141 tonnes of

Biomass. Further, the Floating Solar Project is expected to be completed by Q3 FY24 thus strengthening our green power commitment.

Management of hazardous waste such as spent Pot line, aluminium dross, and high volume low toxic waste such as fly ash, red mud etc. are material waste management issues for the aluminium business. During the year, our operations have utilized 106.74% of Ash and 99.34% Dross.

Vedanta Aluminium has entered into a long-term partnership with Dalmia Cements for gainful utilization of industrial by-products such as fly-ash and Spent Pot Lining (SPL) waste to manufacture 'green' cement. The partnership will enable Vedanta Aluminium's plant at Jharsuguda to transport around 20 rakes of fly ash per month for 5 years to Dalmia Cement plants at Odisha, Chhattisgarh, Meghalaya, and Assam, and transport Spent Pot Lining (SPL) waste for 3 years to Dalmia Cement at Rajgangpur, Odisha. Jharsuguda unit has implemented Integrated Waste Management System by NEPRA for sustainable management of non-hazardous waste like plastic, paper, food, horticulture waste and others. This will enable us to move towards 'Zero Waste to Landfill' and will help us generate wealth out of waste. Till date total 121 rakes had been dispatched which is the highest ever ash dispatch for Jharsuguda unit.

BALCO is associated with Cement industries in the vicinity through road mode and striving to achieve economies of scale and enterprise solution which is environmentally friendly and cost effective. For the very purpose, BALCO has ventured into supplying the conditioned Fly Ash through Rake. This meaningful, sustainable increase in fly ash utilization at locational, distant thermal power plant is mutual win for both Cement companies and BALCO. BALCO is also engaged in Mine back filling of Manikpur Mines which will further support the effort to utilize Fly Ash.

Our Lanigarh operation has placed an order for manufacturing of red mud bricks. It is in the direction of waste-to-wealth initiative. On similar lines, JSG unit is working with Runaya refining for extracting valuable metals from Dross as part of waste-to-wealth initiatives.

The organization is working proactively towards the vision of Zero Waste.

## Production performance

Particulars	FY2023	FY2022	% change
<b>Production (kt)</b>			
Alumina – Lanjigarh	1,793	1,968	(9%)
<b>Total aluminium production</b>	<b>2,291</b>	<b>2,268</b>	<b>1%</b>
Jharsuguda I	541	550	(2%)
Jharsuguda II <sup>1</sup>	1,180	1,137	4%
BALCO I	258	226	14%
BALCO II	312	355	(12%)

### Alumina refinery: Lanjigarh

At Lanjigarh, calcined alumina production stands at 1.80 million tonnes, primarily due to the calciners shutdown for overhauling.

### Aluminium smelters

We ended the year with record production of 2.29 million tonnes.

### Coal Security

We continue to focus on the long-term security of our coal supply at competitive prices. We added Jamkhani (2.6 MTPA), Radhikapur (West) (6 MTPA), Kuraloi (A) North (8 MTPA), Barra coal blocks

and have been declared Successful Bidder for Ghogharpalli Coal Block through competitive bidding process by GOI. We have operationalized Jamkhani Coal block in FY 23 and intend to operationalize Kurloi (A) North and Radhikapur (West) in the next fiscal year. These acquisitions, along with 15 million tonnes of long-term linkage will ensure 100% coal security for Aluminium Business. We also look forward to continuing our participation in linkage coal auctions and secure coal at competitive rates.

## Prices

Particulars	FY2023	FY2022	% Change
Average LME cash settlement prices (US\$ per tonne)	2,481	2,774	(11%)

Average LME prices for aluminium in FY2023 stood at US\$ 2,481 per tonne, 11% lower YoY. Aluminium LME has been steadily declining this year, owing to a recessionary market outlook coupled with the zero covid policy of China. However, with the opening of the Chinese economy coupled with the decrease in the inflationary pressure, the LME price is expected to rebound. Further, the aluminium market is in a growth phase now with demand expected to be driven by sunrise sectors such as Electric Vehicle, Renewable Energy, Défense and Aerospace.

## Unit costs

Particulars	(US\$ per tonne)		
	FY2023	FY2022	% change
Alumina cost -Lanjigarh	364	291	25 %
Aluminium CoP	2,324	1,858	25 %
Jharsuguda CoP	2,291	1,839	25 %
BALCO CoP	2,424	1,913	27 %

During FY2023, the cost of production (CoP) of alumina increased to US\$ 364 per tonne due to lower production and headwinds in the input commodity prices.

In FY2023, the total bauxite requirement of about 5.5 million tonnes was met through domestic as well as import sources.

In FY2023, the CoP of cast metal at Jharsuguda was US\$ 2291 per tonne, an increase by 25% from US\$ 1,839 in FY2022. The cast metal CoP at BALCO stood at US\$ 2,424 per tonne, increased by 27% from US\$ 1,913 per tonne in FY2022. This was primarily driven by the headwinds in input commodity prices.

## Financial performance

Particulars	<i>(US\$ million, unless stated)</i>		
	FY2023	FY2022	% Change
Revenue	6,556	6,833	(4%)
EBITDA	707	2,328	(70%)
EBITDA margin (%)	11%	34%	-
Depreciation and amortisation	281	270	4%
Operating Profit before special items	426	2,058	(79%)
Share in Group EBITDA (%)	15%	37%	-
Capital Expenditure	648	460	41%
Sustaining	192	166	16%
Growth	456	293	55%

During the year, revenue decreased by 4% to US\$ 6,556 million, driven by improved operational performance, strategic hedging gains, partially offset by reduced LME. EBITDA was down at US\$ 707million (FY2022: US\$2,328 million), mainly due to fall in LME, and input commodity inflation

### Strategic priorities & outlook

Our focus remains on capitalization of market opportunities through execution of right levers. Foremost priority remains delinking production cost from external volatility. Lanjigarh expansion activities are underway with full force and an upside in volume is expected in the upcoming year. Vedanta Limited was also declared the preferred bidder for Sijimali at the recently concluded Bauxite mine auction. The same would be instrumental in meeting requirement for 5 MTPA refinery operations. Full capacity production run rate at recently started Jamkhani mine should ease our dependence on spot market coal. This would be further augmented by operationalization of other mines in the short to medium term. Effort would also be continued towards achieving better than best achieved operational performance along with increased volume delivery through debottlenecking and growth projects.

Our core business priorities include:

ESG: Safety & Well being of all stakeholders, Low Carbon Green Aluminium Production (Restora, Restora Ultra), Diversity in Workforce, Circular Economy

Asset Optimisation: >100% capacity utilization of assets through implementation of structured asset reliability program

Raw Material Security: Operationalize Sijimali bauxite mine, Lanjigarh expansion to 5 MTPA

Coal Security: Operationalize coal mines and improve linkage materialization

Quality: Zero customer complaints

Operational Excellence: Continual improvement in operational parameters

Growth: 1 MTPA BALCO smelter expansion, >100% Value Added Capacity

Product Portfolio: Improve value added product portfolio with focus on low carbon aluminium for better realization.

## POWER

### The year in brief

In FY2023, TSPL's (Talwandi Sabo Power Limited) plant availability was 82% and Plant Load Factor (PLF) was 67%.

### Occupational health & safety

In FY2023 TSPL focus on Category 5 Safety Incident elimination such as Critical Risk Management, Catastrophic Risk Management, Horizontal deployment of Safety alert learnings, Vedanta Safety Standard Implementation and Engineering / Controls such as Line of Fire Prevention and Safety improvement project.

We continue to strengthen the 'Visible Felt Leadership' through the on-ground presence of senior management, improvement in reporting across all risk and verification of on-ground critical controls. We also continue to build safety assisting infrastructure development through the construction of pedestrian pathways, dedicated route for bulkers, creation of secondary containment for hazardous chemicals and other infra development across sites.

### Environment

TSPL's focus on environment protection measures includes maintaining green cover of over 800 acres, continued expansion of green cover inside plant premises and nearby communities. TSPL ensures availability of environment protection system such as ESP, Fabric Filters, water treatment plant and RO Plant. In Tailing Dam Management, TSPL has implemented all the recommendations of M/s Golder associates for ash dyke. Additional GISTM Conformance Assessment of TSPL Ash Dyke Facility by ATC Williams, Australia & TATA Consultancy (TCE) as Engineer of Records (EOR) to ensure Ash Dyke stability to review dyke design, quality assurance during for ash dyke raising and quarterly audit of ash dyke facility. In FY 2023, TSPL achieved 83% Ash utilisation in Road Construction, in Building sector for bricks, blocks, cements and low-lying area filling. TSPL has signed various MOUs with stakeholders to increase ash utilisation.

TSPL has recycled 12.62% of the water used and reduced freshwater consumption by various operation controls. TSPL continues its focus on energy saving projects such as High Energy Efficient Booster Pump at Unit#02, CWP RPM reduction, HPT performance improvement, replacement of conventional lighting fixtures with LED lighting fixtures.

To stimulate efforts and reach towards new heights of sustainable business practices, TSPL established ESG transformation office. Under this initiative, TSPL has accelerated its efforts in Environment, Social and Governance aspects. TSPL ESG Transformation Office was created which included 12 communities of practice from each aspect of sustainability. Communities of Practice included Carbon, Water, Waste, Biodiversity, Supply chain, People, Communities (CSR), communication, Safety and Health, Acquisitions, Expansions. Each Community is led by a senior leader in the concerned department. Each community is driving sustainability initiatives in their community. In FY2022-23, 45 new projects were identified, 38 initiatives completed and 62 improvement initiatives are in progress.

### Production performance

Particulars	FY2023	FY2022	% Change
Total power sales (MU)	14,835	11,872	25%
Jharsuguda 600 MW	3,048	2,060	48%
BALCO 300 MW*	648	1,139	(43%)
MALCO#		-	
HZL wind power	395	414	(5%)

TSPL	10,744	8,259	30%
TSPL – availability	82%	76%	

#Continues to be under care and maintenance since 26 May 2017 due to low demand in Southern India.

\*We have received an order dated 01 Jan 2019 from CSERC for Conversion of 300MW IPP to CPP w.e.f. 01 April 2017. During the Q4 FY2019, 184 units were sold externally from this plant.

## Operations

During FY2023, power sales were 14,835 million units, 25% higher YoY. Power sales at TSPL were 10,744 million units with 82% availability in FY2023. At TSPL, the Power Purchase Agreement with the Punjab State Electricity Board compensates us based on the availability of the plant.

The 600MW Jharsuguda power plant operated at a lower plant load factor (PLF) of 63% in FY2023.

The 300 MW BALCO IPP operated at a PLF of 66% in FY2023.

The MALCO plant continues to be under care and maintenance, effective from 26 May 2017, due to low demand in Southern India.

## Unit sales and costs

Particulars	FY2023	FY2022	% Change
Sales realisation (₹/kWh) <sup>1</sup>	3.04	3.10	(2%)
Cost of production (₹/kWh) <sup>1</sup>	2.38	2.42	(2%)
TSPL sales realisation (₹/kWh) <sup>2</sup>	4.50	3.62	24%
TSPL cost of production (₹/kWh) <sup>2</sup>	3.65	2.76	32%

(1) Power generation excluding TSPL

(2) TSPL sales realisation and cost of production is considered above, based on availability declared during the respective period

Average power sale prices, excluding TSPL, lower by 2% and the average generation cost was lower at ₹2.38 per kWh (FY2022: ₹2.42 per kWh).

In FY2023, TSPL's average sales price was higher at ₹4.50 per kWh (FY2022: ₹3.62 per kWh), and power generation cost was higher at ₹3.65 per kWh (FY2022: ₹2.76 per kWh).

## Financial performance

(US\$ million, unless stated)

Particulars	FY2023	FY2022	% change
Revenue	897	783	15%
EBITDA	106	145	(27%)
EBITDA margin (%)	12%	19%	-
Depreciation and amortisation	72	77	(7%)
Operating Profit before special items	34	68	(50%)
Share in Group EBITDA (%)	2%	2%	-
Capital Expenditure	2	6	(58%)
Sustaining	2	6	(58%)
Growth	-	-	-

\*Excluding one-offs

EBITDA for the year was 27% lower YoY at US\$ 106 million from US\$ 145million.

## Strategic priorities & outlook

During FY2023, we will remain focused on maintaining the plant availability of TSPL and achieving higher plant load factors at the BALCO and Jharsuguda IPPs.

Our focus and priorities will be to:

- Resolve pending legal issues and recover aged power debtors;
- Achieve higher PLFs for the Jharsuguda and BALCO IPP; and
- Improve power plant operating parameters to deliver higher PLFs/availability and reduce the non-coal cost.
- Ensuring safe operations, energy & carbon management

## IRON ORE

### The year in brief

- Removal of trade barriers from Karnataka resulted in quick restart of export and enabled us to capture ~99% export share from Karnataka.
- Restart of WCL Operations and successful export of 0.2 million tonnes in this financial year.
- Acquisition of Bicholim mines at lowest bid premium among all iron ore mines auctioned in FY 2023

### Occupational health & safety

With our vision towards the aim of Zero Harm we are committed to achieve zero fatal accident at Iron ore Business. Our Lost Time Injury Frequency Rate (LTIFR) is 0.79 (FY23) compared to 0.83( FY 2022). We are now focusing on bringing down the number of Injuries by conducting a detailed review of critical risk controls through critical task audits, strengthening our work permit and isolation system through identification and closure of gaps, on site audits, increasing awareness of both Company and business personnel by conducting trainings as per requirements considering the sustainability framework.

We have strived to enhance the health and safety performance by digitalisation initiatives such as usage of non-contact type voltage detectors, underground cable detectors. We have also implemented AI cameras (T- Pulse system) for reporting of unsafe acts/conditions automatically in areas where Camera infrastructure is available with central dashboard with all details, analysis, trends and risk category, which ensures effective and immediate closure of violations at site. At VAB we have done Geo fencing to ensure unauthorised entries in most critical operational areas.

Vedanta has launched an HSE based portal by name V- Unified (Enablon) for reporting, collating and analysing the HSE related data across the Business which has become a way of life since its inception during the Financial Year.

At VAB and IOK we have launched 4 Critical Risk Management (CRM) verifications by Line Managers and the observations are being tracked, analysed and rectification plan is in place. We have achieved target of 75% vs planned.

In Health function we have also launched SEVAMOB digital platform for digitisation of Employee Medical Records which help us in tracking and giving health related trend analysis of employees.

In order to achieve highest levels of safety at site we have identified key personnel from operation and maintenance to serve as Grid Owners in addition to their current roles and responsibilities. We have also conducted defensive driving trainings to further enhance driving skills thereby reducing the vehicle related incidents. At VAB we have conducted a training on crane and lifting safety for approving critical lift plan and better focus on safety in areas of lifting and critical lifts. We have also



conducted rescue training for Confined space and Work at Height through a third party so as to authorize a shortlisted group of competent personnel as trained rescuers. To improve upon confined space safety we have conducted “Authorised Gas Testers” training programme to strengthen our Confined space activities.

At IOK we have conducted rescue trainings through a third-party for Confined Space and Work at Height. Traffic Management & Road Safety Training was conducted by Rashtriya Raksha University involving selected employees and Business Partners. 4 modules of AR-VR have been launched at IOK which includes LMV operation, wheel loader operation, fire extinguisher operation and engine maintenance.

In FY 2024 we will be further launching remaining Safety Standard through CRM for strengthening our Fatality Prevention Programme.

## Environment

At our Value-Added Business we recycle and reuse all the process water. Only the non-contact type condenser cooling water of the power plant is cooled and treated for pH adjustment and discharged back into the Mandovi river, which is a consented activity by the authorities.

1560 numbers of native species were planted in the year 2022-23 in green belt area of VAB along with 1850 no of native species plantation was done in surrounding villages of VAB

Also, Value Added Business received Consent to establishment for expansion project for installing Ductile Iron plant, oxygen plant & Ferro Silicon Plant along with increasing hot metal production capacity.

At Iron ore Karnataka, continuing with its best practises, company has constructed 38 check dams and 7 settling ponds. Additionally, company has de-silted 2 nearby village ponds, increasing their rainwater harvesting potential by 20000 m3/annum.

In FY2023, around 6 Ha of mining dump slope was covered with biodegradable geotextiles to prevent soil erosion and 55,000 native species sapling were planted. Various latest technologies like use of fog guns; environment friendly dust suppressants mixed with water were adopted on the mines to reduce water consumption for dust suppression without affecting the effectiveness of the measures.

## Production performance

Particulars	FY2023	FY2022	% Change
Production (dmt)			
<b>Saleable ore</b>	5.3	5.4	(2%)
Goa	-	-	-
Karnataka	5.3	5.4	(2%)
Pig iron (kt)	696	790	(12%)
<b>Sales (dmt)</b>			
<b>Iron ore</b>	5.7	6.8	(17%)
Goa	0.7	1.1	(33%)
Karnataka	5.0	5.7	(13%)
Pig iron (kt)	682	790	(14%)

## Operations

At Karnataka, production was 5.3 million tonnes. Sales of Iron ore in FY2023 were 5.7 million tonnes, 17% lower YoY. Production of pig iron was 696,559 tonnes in FY2023, lower by 12% YoY due to shut down in blast furnaces in FY 2023.

At Goa, mining was brought to a halt pursuant to the Supreme Court judgement dated 7 February 2018 directing all companies in Goa to stop mining operations with effect from 16 March 2018.

We bought low grade iron ore in auctions held by Goa Government in Auction No -26 & 27 in FY 22. This opening stock of ore purchased in the auction and fresh royalty paid ore moved out of mines post the supreme court order, was then beneficiated and around 0.7 million tonnes were exported which further helped us to cover our fixed cost and some ore were used to cater to requirement of our pig iron plant at Amona.

## Financial performance

Particulars	(US\$ million, unless stated)		
	FY2023	FY2022	% Change
Revenue	809	852	(5%)
EBITDA	124	304	(59%)
EBITDA margin (%)	15%	36%	-
Depreciation and amortisation	33	32	4%
Operating Profit before special items	91	272	(67%)
Share in Group EBITDA (%)	3%	5%	-
Capital Expenditure	64	22	-
Sustaining	7	9	(27%)
Growth	57	12	-

In FY2023, revenue decreased by 5% to US\$ 809 million. EBITDA decreased to US\$ 124 million compared with US\$ 304 million in FY2022, mainly due to decrease in sales at Karnataka and VAB and input commodity inflation.

## Strategic priorities & outlook

Our near-term priorities comprise:

- Restart mining operations at Goa.
- Ramp up our operations in Liberia and setting up magnetite concentrator plant
- Green Mining leveraging, digitalisation, and Renewable energy

## STEEL

### The year in brief

ESL is an integrated steel plant (ISP) in Bokaro, Jharkhand, with a design capacity of 2.5mtpa. Its current operating capacity is 1.5mtpa with a diversified product mix of Wire Rod, Rebar, DI Pipe and Pig Iron.

In FY2023, ESL Steel Limited (ESL) has achieved highest ever hot metal production of 1.37 million tonnes, up 1% YoY and highest ever saleable production of 1.29 million tonnes up 2% YoY since acquisition.

## **ESL HSE/ESG Performance**

### **Occupational Health & Safety**

We at ESL believe that all accidents are preventable and to realise our vision of Zero Harm, we have carried out the following key initiatives for nurturing ZERO HARM culture across organisation.

- **Launched Project VIHAAN** – Critical Risk Management to verify critical risks Go and NoGo implementation periodically for various critical controls viz.,
- **Digital Initiatives** – Launched Cardinal Safety Rule Portal, Kiosk Based safety induction for drivers and QR based fire equipment maintenance and tracking
- **Capability Building** – Engaged DuPont to train and develop trainers for implementing various safety standards (160+ developed through TTT)
- **Occupational Health**- Engaged M/s Apollo for manging OHC & Air Ambulance services, initiated medical consultation facility for employees and their families at Bokaro City and developed 500+ trained first aiders
- **Infrastructure** – Conveyor Guarding, Drain Covering, Fire hydrant line revamping, settling pits, tarpaulin covering/uncovering platforms and man machine segregation across the plant roads

### **Environment**

#### **Waste and Circular Economy**

We have achieved 100% utilization of BF granulated slag and fly ash by re-using in cement plants & local brick manufacturers. Other types of waste viz., bottom ash, LD Slag & Core mould sand, we have achieved 98% of its utilization by internal road making & mines back filling. Hazardous wastes are being sent to PCB authorized recyclers/re-processors.

#### **Climate Change**

- Reduction in False Air/Air leakages in Sinter Plant, Sinter Plant bed depth control, Fuel crushing index improvement has resulted in estimated decrease of tonnes of CO<sub>2</sub>e by 35,000 tonnes of CO<sub>2</sub>e.
- LD gas recovery project has been undertaken by repairing and revamping the Gas Holder facility, which has led to an estimated decrease of 18480 tonnes of CO<sub>2</sub>e.

#### **Biodiversity/Plantation**

- ESL has achieved 34.54% green belt development.
- Around 25000 saplings have been planted inside KML to drive greenbelt development project
- 10000 fruit bearing saplings have been distributed among 9 panchayats to drive greenbelt development in surrounding areas of ESL
- Miyawaki afforestation of 2.5 acre has been commenced in Q4 with the target of about 55,000 saplings.

## Water Management

- 2 No.s of rain-water settling pits along with pumps have been installed to contain the flow from the stormwater drains across the plant. This has resulted in increase in ETP water intake and optimized the usage of stormwater by 350-400 KLD.
- 250 KLD sewage treatment plant has been commissioned during Q4 which would reduce fresh water off take by 250 KL/day. This would ensure saving of fresh water 90,000 KL/annum
- **Green Belt Development** – Planted more than 35000 saplings including 10000 fruit bearing saplings, achieved 33% greenbelt requirement this year
- **ESG** – 60 projects have been identified out of which 10 have been completed and 34 have achieved IL 4 stage.

- **Specific Water –**

We have reduced our fresh water off take from the reservoir by 1.7 million m<sup>3</sup> through the following water stewardship programme. This has resulted in achieving specific water consumption of 2.88 M3/tcs from 3.00 M3/tcs.

- Arresting water leakages and replacing firefighting pipelines
- Increasing recycle percentage through installation of ZLD pump from 12% to 24%
- increasing cooling tower COC from 6 to 7.
- Cleaning of backwash pipeline

- **Sp. Energy & GHG Emissions -**

Against the target of 7.97Gcal/tcs, we have achieved 7.72 Gcal/tcs (YTD) several initiatives were taken such as:

- Optimization of compressor, blower speed, CT fans, AC & Light operation, power consumption of other circuit hot water circulating pumps by installing VFD with feedback system
- ID Fan VFD Installation in Sinter Plant, SMS, Lime secondary fan
- Reduction in False Air/Air leakages in Sinter Plant, Sinter Plant bed depth control, Fuel crushing index improvement has resulted in estimated decrease of tonnes of CO<sub>2</sub>e by 35,000 tonnes of CO<sub>2</sub>e.
- Blast furnace dedusting damper auto control
- Improving fuel rate by 20 Kg/tcs for BF3 and 7 Kg/tcs for BF2 resulting in reduction of 64,846.6 tonnes of CO<sub>2</sub>e.

## Production performance

Particulars	FY2023	FY2022	% Change
Production (kt)	1,285	1,260	2%
Pig iron	192	186	3%
Billet	26	91	(71%)
TMT bar	463	399	16%
Wire rod	407	421	(3%)
Ductile iron pipes	196	164	20%

## Operations

During FY2023, we have achieved highest ever hot metal production of 1.37 million tonnes, up 1% YoY and highest ever saleable production of 1.29 million tonnes, up 2% YoY on account of increased availability of hot metal due to debottlenecking of blast furnace and operational efficiencies.

The priority remains to enhance production of value-added products (VAPs), i.e., TMT Bar, Wire Rod and DI Pipe. ESL achieved 83% VAP sales, 5% improvement in FY 2023, in line with priority.

There have been significant gains in Sales and NSR front. However, operational inefficiencies, higher raw material prices of coking coal and other market factors resulted in higher cost of sales. We are trying to stabilize our raw material prices. We have acquired two iron ore mines to achieve raw material long term security and pricing stability.

Our Consent to Operate (CTO) for the steel plant at Bokaro, which was valid until December 2017, was not renewed by the Jharkhand State Pollution Control Board (JSPCB). This was followed by the Ministry of Environment, Forests and Climate Change (MoEF&CC) revoking the Environmental Clearance (EC) dated February 21, 2018. MoEF&CC, on August 25, 2020, has granted a Terms of Reference to ESL for 3 MTPA plant with conditions like fresh EIA/EMP reports and public hearing. The Honorable High Court of Jharkhand had extended the interim protection granted in the pending writ petitions till September 16, 2020. Hon'ble High Court on September 16, 2020, pronounced and revoked the interim stay for plant continuity w.e.f September 23, 2020. ESL filed a SLP before Hon'ble Supreme Court against September 16, 2020, order for grant of interim status quo order and plant continuity. Vide order dated September 22, 2020, Hon'ble Supreme Court issued notice and allowed plant operations to continue till further orders. In furtherance of the Supreme Court orders for plant continuity, MoEF vide its letter dated 02.02.2022 has deferred the grant of Environment Clearance till Forest Clearance Stage-II is granted to ESL. ESL has submitted its reply against MoEF letter vide letter dated 11.02.2022 for reconsidering the decision and not linking EC with FC since as per the applicable law and available precedents, grant of FC Stage - II is not a condition precedent for grant of EC. CTO will be procured post furnishing the EC. The grant of FC was kept at abeyance for the want of Forest Clearance. FC stage I is granted to ESL, while the FC compliance are under process.

## Prices

Particulars	<i>(US\$ per tonne)</i>		
	FY2023	FY2022	% Change
Pig Iron	551	545	1%
Billet	620	612	1%
TMT	700	687	2%
Wire rod	707	706	0%
DI pipe	769	628	22%
<b>Average steel price (US\$ per tonne)</b>	<b>689</b>	<b>659</b>	<b>4%</b>

Average sales realization increased 4% YoY from US\$659 per tonne in FY2022 to US\$689 per tonne in FY2023. Prices of iron and steel are influenced by several macro-economic factors. These include global economic slowdown, US-China trade war, Russia-Ukraine war, duties on iron and steel products, supply chain destocking, government expenditure on infrastructure, the emphasis on developmental projects, demand-supply dynamics, the Purchasing Managers' Index (PMI) in India and production and inventory levels across the globe especially China. Even though the NSR increased by US\$ 29 per tonne, we were unable to increase our EBITDA margin and landed at US\$ 32 per tonne for the year (against US\$ 74 per tonne in FY2022) due to increased raw material prices of coking coal, which continued to remain high in Q2 and Q3, when the market prices for steel products declined sharply.

## Unit costs

Particulars	FY2023	FY2022	% Change
Steel (US\$ per tonne)	651	585	12%

Cost has increased by 12 % YoY from US\$ 585 per tonne to US\$ 656 per tonne in FY2023, primarily on account of increase in coking coal prices during the year, uncontrollable factors and operational inefficiencies.

## Financial performance

Particulars	(US\$ million, unless stated)		
	FY2023	FY2022	%Change
Revenue	978	869	13%
EBITDA	39	94	(58%)
EBITDA margin (%)	4%	11%	
Depreciation and amortisation	48	38	28%
Operating Profit before special items	(9)	56	-
Share in Group EBITDA (%)	1%	2%	-
Capital Expenditure	85	118	(28%)
Sustaining	12	15	(23%)
Growth	73	102	(29%)

Revenue increased by 13% to US\$ 978 million (FY2022: US\$ 869 million), primarily due to higher volume and NSR. EBITDA decreased by 58% to US\$ 39 million mainly due to increased cost partially offset by increased sales realization.

### Strategic priorities and outlook

Steel demand is expected to surge owing to the gradual recovery in economic activities across the world, robust demand from key sectors and the emphasis of governments to ramp up infrastructure spend in India. With the growing demand for steel in India, ESL has prioritised to increase its production capacity from 1.5 MTPA to 3 MTPA by FY25 and 5 MTPA by FY27 with a vision to become high-grade, low-cost steel producer with lowest carbon footprint. The focus is to operate with the highest Environment, Health and Safety standards, while improving efficiencies and unit costs.

The focus areas comprise of:

- Ensuring business continuity
- Innovation in Technology for sustainable operations/production
- Development of low-cost CapEx products (Alloy Steel Segments and Flat Products) to capture market share
- Optimise and significantly reduce logistics cost over time
- Greater focus on Reliability Centred Maintenance
- Obtain clean 'Consent to Operate' and environmental clearances
- Raw material securitisation through long-term contracts; approaching FTA countries for coking coal

- Ensure zero harm and zero discharge, fostering a culture of 24x7 safety culture

## **FACOR**

### **The year in brief**

FACOR has achieved record ferro chrome ore production of 290kt, since acquisition through operationalisation of two ore mines. It also achieved high ferro chrome production of 67 kt and sales of 67 kt.

### **Occupational Health Safety**

It is with deep sadness that we report the loss of two of our colleagues (Business partners) in work-related incidents at our managed operations in FY 2023, one each at Mining site and at Plant site. These incidents happened despite continuous efforts to eliminate fatalities and attain a Zero Harm work environment. A thorough investigation was conducted to identify the causes of these incidents and to share lessons learned across our sites, with the aim of preventing repeat or similar incidents.

LTIFR for the year was 0.13 as compared to 0.25 in FY2022. The reduction was driven by several safety awareness, investigation, and prevention initiatives. As compared to a year ago, number of LTIs decreased from 2 to 1 in this FY 23. There has been greater management focus to bring a cultural change via felt leadership programs, town halls & recognition for near-miss reporting. Our safety leadership regularly engages with the business partner site in-charges and their safety officers for their capability development and strengthening the culture of safety at our sites. We follow a zero-tolerance policy towards any safety related violations with stringent consequence management.

In FY 2023, FACOR complied with all its statutory requirements related to its Health Safety and Environment. In terms of Safety, we continued creating awareness on various Safety topics through Monthly Safety Themes and Awareness programs. We successfully eliminated a few critical jobs from line of fire with "Installation Wagon Pusher Device at our Wagon Tripler area" and "Shifting of Ladle Cleaning area out of the hot metal handling zone". We also completed our major Furnace relining job safely. AI based Safety System "T-Pulse" was installed in CCTV Cameras of Charge Chrome Plant (CCP) Hot Metal Area to auto detect Unsafe observations. For Risk Management, EOT Cranes were provided with Anti-Collision device and Audio-Visual Alarm, Silpaulin were installed on weak benches of the Mines dump, Proximity sensors and Semi Fire Suppression System (SFSS) were installed at all Mines Dumpers and Inhouse Machine Guarding work was done throughout all the Conveyors across all the units.

### **Environment**

For environment, on statutory front Environment Clearance and Consent to Establish (CTE) was obtained for 33 MVA Furnace and Consent to Operate (CTO) was extended for Kalarangiatta Mines. We started utilizing Spent resin which is a hazardous waste in our Powerplant (FPL) boiler after due approvals. For the first time, we started disposing our Plastic waste from both Plant and Mines to authorized vendors. Plantation of more than 12000 saplings were conducted across all units of FACOR.

Our business is committed to protect the environment, minimise resource consumption and drive towards our goal of Net Water Positivity and 100% Waste utilization. A few more highlights for FY2023 are:

- Installation of a new Sewage Treatment Plant
- Installation of Weather Monitoring Station
- Installation of Ambient Air Quality Monitoring System (AAQMS)
- Conducted CGWA Water Audit and Ground Water Impact Assessment
- Velocity of flue gas – Installation of Stack & integrated with CEMS data at FPL
- Installation of CEMS analysers at Gas Cleaning Plant

## Production Performance

Particulars	FY2023	FY2022	% Change
Ore Production (kt)	290	250	16%
Ferrochrome Production (kt)	67	75	(11%)
Ferrochrome Sales (kt)	67	77	(12%)
Power Generation (MU)	112	294	(6%)

**At Mining division**, we recorded ever highest Chrome Ore production of 290 kt in FY 2023 since acquisition. Ensuring our commitment towards zero harm, we have installed fatigue monitoring systems, AFDSS and proximity sensors in all tippers. The mining division has achieved a milestone in observational reporting since FY 22, through state-of-the-art in house developed 'FACOR – SO' mobile application along with geo-tagging.

**At Charge Chrome Plant (CCP)**, we recorded Ferrochrome metal volume of 67 kt in FY2023. We started blending Met Coke with Anthracite coal and Coke Fines Briquettes and were able to achieve average blending of 20% (15% Anthracite Coal and 5% Coke Fine Briquettes) in FY 2023 from 14% of FY 2022. We also reduced our specific Power consumption to levels of 3316 kWh/T against 3,345 kWh /T.

**At Power Plant**, we recorded annual Power Generation of 112 MU in FY 2023.

## Financial performance

(US\$ million, unless stated)

Particulars	FY2023	FY2022	%Change
Revenue	96	111	(14%)
EBITDA	19	44	(57%)
EBITDA margin (%)	19%	39%	-
Depreciation and amortisation	12	6	-
Operating Profit before special items	7	38	(82%)
Share in Group EBITDA (%)	0%	1%	-
Capital Expenditure	24	15	60%
Sustaining	12	15	(17%)
Growth	12	-	-

## Strategic Priorities & Outlook

- Expansion of metal production capacity to 300KTPA.
- Expansion of Mines from current capacity of 290 kt to 390 kt.
- Metal capacity addition of 76 KTPA through new 33MVA Furnace.
- 100 MW Power Generation & sale of additional power.
- New COB plant commissioning of enhanced capacity of 50 TPH



## COPPER – INDIA / AUSTRALIA

### The year in brief

Silvassa operations continued to deliver 20% growth in sales volume, largely catering to India's copper demand.

The copper smelter plant at Tuticorin was under shutdown for the whole of FY 2023, while we continue to engage with the Government and relevant authorities to enable the restart of operations at Copper India.

### Occupational health & safety

The lost time injury frequency rate (LTIFR) was 2.77 in FY 2023 (FY 2022: 0). Dupont Process Safety Management (PSM) Tool was launched for addressing the core elements of safety driven by sub committees under each PSM element. Received 4 Star Safety Rating from British Safety Council.

We conducted safety stand-downs to communicate the learnings from safety incidents and prevent future incidents. Our safety leadership regularly engages with the business partner site in-charges and their safety officers for their capability development and strengthening the culture of safety at our sites.

### Environment

Aligned with Vedanta's vision to reach net zero emissions by 2050, Sterlite Copper has entered into a renewable energy sourcing agreement to produce Green Copper using 100% renewable energy & implemented AI & ML based Smart fuel optimisation for combined targeted GHG Emission reduction by 68000 tCO<sub>2</sub>.

Copper Mines of Tasmania continued to be under care and maintenance awaiting a decision on restart. Meanwhile, a small, dedicated team is maintaining the site and there were no significant safety or environmental incidents during the year. The site retained its ISO accreditation in safety, environment and quality management systems and the opportunity of a lull in production was used to review and further improve these systems.

### Production performance

Particulars	FY2023	FY2022	% Change
Production (kt)			
India – cathode	148	125	18%

### Operations

Copper production in Silvassa increased by 18% to 148 kt, sales increased by 20% to realise highest sales after closure of the Tuticorin unit. This was achieved through improved operational efficiencies, debottlenecking and capability building initiatives carried across the plant. The year also marked remarkable growth in free cash flow.

The Tamil Nadu Pollution Control Board (TNPCB) vide order, dated April 9, 2018, rejected the consent renewal application of Vedanta Limited for its copper smelter plant at Tuticorin. It directed Vedanta not to resume production operations without formal approval/consent (vide order dated April 12, 2018) and directed the closure of the plant and the disconnection of electricity (vide order dated 23 May 2018).

The Government of Tamil Nadu also issued an order dated May 28, 2018 directing the TNPCB to permanently close and seal the existing copper smelter at Tuticorin; this was followed by the TNPCB on 28 May 2018. Vedanta Limited filed a composite appeal before the National Green Tribunal (NGT) against all the above orders passed by the TNPCB and the Government of Tamil Nadu. In December

2018, NGT set aside the impugned orders and directed the TNPCB to renew the CTO. The order passed by the NGT was challenged by Tamil Nadu State Govt. in the Hon'ble Supreme Court.

The Company had filed a Writ Petition before the Madras High Court challenging the various orders passed against the Company in 2018 and 2013. On August 18, 2020, the Madras High Court delivered the judgement wherein it dismissed all the Writ Petitions filed by the Company. The Company has approached the Supreme Court and challenged the said High Court order by way of a Special Leave Petition (SLP) to Appeal and also filed an interim relief for care & maintenance as well as trial operation of the plant. The matter was then listed on December 02, 2020, before the Supreme Court. The Bench after having heard both the sides on the interim relief of trial operation of the Plant, concluded that at this stage the interim relief could not be allowed. Further, The matter was listed as item no. 22 on April 10, 2023 and was taken up and heard by the Supreme Court. The Bench allowed the activities as permitted in the letter of the Additional Chief Secretary to the district collector, namely:

- i. Gypsum evacuation
- ii. Operation of Secured Landfill (SLF) leachate sump pump
- iii. Bund rectification of SLF - 4
- iv. Green-belt maintenance

Our copper mine in Australia has remained under extended care and maintenance since 2013. However, we continue to evaluate various options for its profitable restart, given the Government's current favourable support and prices.

## Prices

Particulars	FY2023	FY2022	% Change
Average LME cash settlement prices (US\$ per tonne)	8,530	9,689	(12%)

Average LME copper prices reduced by 12% compared with FY2022 predominantly due to low demand in China owing to COVID restrictions.

## Financial performance

*(US\$ million, unless stated)*

Particulars	FY2023	FY2022	% change
Revenue	2,179	2,035	7%
EBITDA	(7)	(15)	(50%)
EBITDA margin (%)	(0%)	(1%)	-
Depreciation and amortisation	18	20	(15%)
Operating Profit before special items	(25)	(35)	(24%)
Share in Group EBITDA (%)	0%	0%	-
Capital Expenditure	14	21	(32%)
Sustaining	12	0	-
Growth	2	21	-

During the year, revenue was US\$ 2,179 million, an increase of 7% on the previous year's revenue of US\$ 2,035 million. The increase in revenue was mainly due to higher volume partially offset by lower Copper LME prices. EBITDA decreased to US\$ (7) million.

## Strategic priorities & outlook

Over the following year our focus and priorities will be to:

- Engage with the Government and relevant authorities to enable the restart of operations at Copper India;
- Improve operating efficiencies, increase sales margin and reduce production costs
- Upgrade technology & digitalisation to ensure high-quality products and services that sustain market leadership and surpass customer expectations; and
- Continuous debottlenecking and upgrade our processing capacities for increased throughput

## Port Business

### Vizag General Cargo Berth (VGCB)

The volumes handled increased moderately by 1% Y-o-Y and the dispatch volume increased by 4% Y-o-Y. 3% of the total volumes handled represents Multi-cargo (i.e., other than coal) under supplementary agreement signed with Visakhapatnam Port Authority (VPA).

## Risk Management

# Managing risks and opportunities amidst a dynamic external environment

As our operations are spread globally, our businesses are exposed to a variety of risks. Our multi-layered risk management system and robust governance framework help us align our operating controls with the Group's overarching vision and mission. This, in turn, helps us deliver on our strategic objectives.

## Enterprise risk management

For our existing operations and ongoing projects, we identify risks at the individual business-level by way of a consistently applied methodology. We undertake business-level review meetings at least once every quarter to discuss risk management formally. Within the Group, every business division has created and evolved its risk matrix and developed its risk registers. The respective business divisions review the risks, changes in the nature and extent of major risks since the last assessment and control measures, and then decide on further action plans. These risks are then reviewed by the Business Management Committee.

The business management teams also periodically review control measures stated in the risk matrix in order to verify their effectiveness. The CEOs of respective businesses chair these meetings, which are also attended by CXOs, senior management and the functional heads. At the business and Group level, the role of Risk Officers is to create awareness among the senior management on risks and to develop and nurture a risk-management culture within the businesses. An integral part of KRAs and KPIs of process owners is to come up with risk mitigation plans. The governance of the risk management framework is anchored with the leadership teams of individual businesses.

By identifying and assessing changes in risk exposure, reviewing risk-control measures and approving remedial actions, wherever appropriate, the Audit & Risk Management Committee aids the Board in its risk management process. This Committee is supported by the Group Risk Management Committee (GRMC), which helps evaluate the design and operating effectiveness of the risk mitigation programme and control systems. This analysis discusses risks and mitigation measures, reviews the robustness of our framework at an individual business level and maps progress against actions planned for key risks by meeting at least four times annually.

The GRMC, which meets every quarter, discusses key events impacting the risk profile, relevant risks and uncertainties, emerging risks and progress against planned actions. This committee comprises the Group Chief Executive Officer, Group Chief Financial Officer and Director-Management Assurance. The Group Head - Health, Safety, Environment & Sustainability are also invited to attend these meetings.

The risk management framework, which is simple and consistent, provides clarity on managing and reporting risks to the Board. Our management systems, organisational structures, processes, standards and Code of Conduct and ethics together represent our internal control systems. These internal control systems govern how the Group conducts its business and manages associated risks.

The Board shoulders the ultimate responsibility for the management of risks and for ensuring the effectiveness of these internal control systems. The Board's responsibility includes a review of the Audit & Risk Management Committee's report on the risk matrix, significant risks, and mitigating actions. A regular review is conducted of any systemic weaknesses identified and addressed by enhanced procedures to strengthen the relevant controls.

Risk management is embedded in business-critical activities, functions and processes. This is also critical to deliver on the Group's strategic objectives. The Company's risk management framework is designed to manage, not eliminate, the risk of failure to achieve its business objectives. The framework provides reasonable, (not absolute), assurance against material misstatement or loss. The key considerations of our decision-making are materiality and risk tolerance.

Every manager and business leader is responsible for identifying and managing risks. The key risk governance and oversight committees in the Group are as below:

- The Board is supported by the Committee of Directors (COD), comprising the Vice Chairman and Group CFO, by considering, reviewing and approving the borrowing and investment-related proposals within the overall limits approved by the Board. The CEO, Business CFOs, Group Head Treasury and BU Treasury Heads, based on the agenda, are invited to these committee meetings
- The Audit and Risk Management Committee, along with Sustainability Committee, review sustainability-related risks
- Various group-level ManCom such as Procurement ManCom, Sustainability - HSE ManCom, and CSR ManCom work on identifying specific risks and working out mitigation plans

Every business has developed its risk matrix, which is reviewed by the respective management committee/executive committee, chaired by its CEO. In addition, depending on the size of its operations and the number of SBUs/locations, every business has developed its risk register. Across these risk registers, the risks are aggregated and evaluated, the Group's principal risks are identified, and an adequate response mechanism is formulated.

It is this element which is an important component of the overall internal control process, from which the Board obtains assurance. The scope of work, authority and resources of the Management Assurance Services (MAS) are regularly reviewed by the Audit Committee. Recommending

improvements in the control environment and reviewing compliance with our philosophy, policies and procedures are the key responsibilities of MAS.

It is from the risk perspective that the planning of internal audits is approached. Inputs are sought from the senior management, business teams and members of the Audit Committee and reference is made to the risk matrix while preparing the internal audit plan. The past audit experience, financial analysis and prevailing economic and business environment are also referred to in the process.

In the section that follows, the order in which risks appear does not necessarily reflect the likelihood of occurrence or the relative magnitude of their impact on Vedanta's businesses. For each risk, the risk direction is reviewed based on the events, economic conditions, changes in the business environment and regulatory changes during the year.

The Company's risk management framework has been formulated to help the organisation meet its objectives. However, there is no guarantee that the Group's risk management activities will mitigate these risks or prevent them, or other risks, from occurring.

With the assistance of the management, the Board conducts periodic and robust assessments of principal risks and uncertainties of the Group, while also testing the financial plans associated with each.

**Impact**

**Mitigation**

**Sustainability risks**

**Health, safety and environment (HSE)**

**Risk direction: ◀▶**

The resources sector is subject to extensive health, safety and environmental laws, regulations and standards. Evolving requirements and stakeholder expectations could result in increased costs or litigation or threaten the viability of operations in extreme cases. Large-scale environmental damage is amongst the top 10 risks, as per the World Economic Forum's Global Risk Report 2023 for the next 2 years, which can lead to global policy changes

**Emissions and climate change**

Climate change mitigation and adaption failure is ranked amongst the top 10 risks as per World Economic Forum's Global Risk Report 2023 over the next 2 years to 10 years. Our global presence exposes us to a number of jurisdictions in which regulations or laws have been, or are being, considered to limit or reduce emissions. The likely effect of these changes could be to increase the cost of fossil fuels, imposition of levies for emissions in excess of certain permitted levels and increase administrative costs for monitoring and reporting. Increasing regulation of greenhouse gas (GHG) emissions, including the progressive introduction of carbon emissions trading mechanisms and tighter emission reduction targets, is likely to raise costs and reduce demand growth

- HSE is a high-priority area for Vedanta. Compliance with international and local regulations and standards, protecting our people, communities and the environment from harm, and our operations from business interruptions, are the key focus areas
- Policies and standards are in place to mitigate and minimise any HSE-related occurrences. Safety standards are issued or continue to be issued to reduce the risk level in high-risk areas. Structured monitoring, a review mechanism and a system of positive compliance reporting are in place
- BU leadership continues to emphasise on three focus areas: visible felt leadership, safety-critical tasks and managing business partners
- The process to improve learning from incidents is currently being improved to reduce the re-occurrence of similar incidents
- A Vedanta Critical Risk Management programme will be launched to identify critical risk controls and to measure, monitor and report control effectiveness
- The Company has implemented a set of standards to align its sustainability framework with international practices. A structured sustainability assurance programme continues to operate in the business divisions covering environment, health, safety, community relations and human rights aspects. This is designed to embed our commitment at the operational level
- All businesses have appropriate policies in place for occupational health-related matters, supported by structured processes, controls and technology
- To provide incentives for safe behaviour and effective risk management, safety KPIs have been built into the performance management of all employees
- The carbon forum has been re-constituted with updated terms of reference and representation from all businesses. Its mandate is to develop and recommend the carbon agenda for the Group to the Executive committee (ExCo) and Board
- Enhanced focus on renewable power obligations
- The Group companies are actively working on reducing the intensity of GHG emissions in our operations
- A task force team is formulated to assess end-to-end operational requirements for the FGD plant. We continue to engage with various stakeholders on the matter

**Managing relationships with stakeholders**

**Risk direction: ◀▶**

The continued success of our existing operations and future projects is partly dependent on the broad support and healthy relationships with our local communities. Failure to identify and manage local concerns and expectations can have a negative impact on relations and, therefore, can affect the organisation's reputation and social licence to operate and grow

- Our CSR approach to community programmes are governed by the following key considerations relating to the needs of the local people and the development plan in line with the new Companies Act in India; CSR guidelines; CSR National Voluntary Guidelines of the Ministry of Corporate Affairs, Government of India; and the UN's sustainable development goals (SDGs)
- Our BU teams are proactively engaging with communities and stakeholders through a proper and structured engagement plan, with the objective of working with them as partners
- A group-level CSR management committee meets every fortnight to review and decide on strategic CSR Planning, its execution and communication
- Business Executive Committee (ExCo) factor in these inputs, and then decide upon the focus areas of CSR and budgets, in alignment with strategic business priorities
- All BUs follow well-laid processes for recording and resolving all community and external grievances as well as standard processes for social investment
- Every business has a dedicated Community Development Manager, who is a part of the BU ExCo. They are supported by dedicated teams of community professionals
- Our business leadership teams have periodic engagements with the local communities to build relations based on trust and mutual benefit. Our businesses seek to identify and minimise any potentially negative operational impact and risks through responsible behaviour – that is, acting transparently and ethically, promoting dialogue and complying with commitments to stakeholders
- Stakeholder engagement is driven basis the stakeholder engagement plan at each BU by the CSR and cross-functional teams. Regular social and environmental risk assessment discussions happen at the BU-level
- Strategic CSR communication is being worked upon for visibility. Efforts continue to meet with key stakeholders, showcase our state-of-the-art technology, increase organic followers and enhance engagement through social media
- CSR communication and engagement with all stakeholders – within and outside communities

### **Tailings dam stability**

The release of waste material can lead to loss of life, injuries, environmental damage, reputational damage, financial costs and production impacts. A tailings dam failure is considered to be a catastrophic risk – i.e., a very high severity, but very low-frequency event and is a continuous risk. Hence, it receives the highest priority

### **Risk direction: ◀▶**

- The Risk Management Committee included a tailings dam on the Group risk register with a requirement for an annual internal review and a three-yearly external review
- Operation of the tailings dam is executed by suitably experienced personnel within the businesses
- Third party has been engaged to review tailings dam operations, including the improvement opportunities and remedial works required in addition to the application of Operational Maintenance and Surveillance (OMS) manuals in all operations. This is an oversight role in addition to the technical design and guidance arranged by respective BUs. Technical guidelines are also being developed
- Vedanta Tailings Management Standard has been reviewed, augmented and reissued, including an annual, independent

review of every dam and a half-yearly CEO sign-off that dams continue to be managed within the design parameters and in accordance with the last surveillance audit. Move towards dry tailings facilities has commenced

- Those responsible for dam management receive training from third parties and will receive ongoing support and coaching from international consultants
- Management standards implemented with business involvement
- BUs are expected to ensure ongoing management of all tailings facilities with ExCo oversight with independent third-party assessment on the implementation status of Golder recommendations
- Digitalisation of tailings monitoring facilities is being carried out at the BUs
- Tailing management standard is updated to include latest best practices in tailing management. The UNEP/ICMM Global Tailings Standard was incorporated into Vedanta Standard during FY 2021

### Operational risks

#### Challenges in Aluminium and Power business

Risk direction: ◀▶

Our projects have been completed and may be subject to a number of challenges during operationalisation. These may also include challenges around sourcing raw materials and infrastructure-related aspects and concerns around ash utilisation/evacuation

- Despite the fluctuation in LME along with pressure on cost, best-ever production outcomes have resulted in a sustained performance in the Aluminium sector
- Despite improvement in costs QoQ, along with improved raw material security, alumina refinery expansion from 2 MTPA to 5 MTPA is being pursued
- Tapping of new coal mines and sourcing of bauxite have been beneficial for plant operations
- Continue to pursue new coal linkages to ensure coal security
- Inbound and outbound supply chains across rail, road and ocean including manpower are functioning well, with no major risks foreseen
- Local sourcing of bauxite and alumina from Odisha
- Jharsuguda facilities ramped up satisfactorily
- Project teams in place for ash pond, red mud, railway infrastructure and FGD
- Dedicated teams working towards addressing the issue of new emission norms for power plants
- Global technical experts inducted to strengthen operational excellence
- Continuous focus on plant operating efficiency improvement programme to achieve design parameters, manpower rationalisation, logistics and cost reduction initiatives
- Continuous augmentation of power security and infrastructure
- Strong management team continues to work towards sustainable low-cost production, operational excellence and securing key raw material linkages
- Talwandi Saboo (TSPL) power plant matters are being addressed structurally by a competent team

#### Discovery risk

Risk direction: ◀▶



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Increased production rates from our growth-oriented operations create demand for exploration and prospecting initiatives so that reserves and resources can be replaced at a pace faster than depletion. Failure in our ability to discover new reserves, enhance existing reserves or develop new operations in sufficient quantities to maintain or grow the current level of our reserves could negatively affect our prospects. There are numerous uncertainties inherent in estimating ore and oil and gas reserves, and geological, technical, and economic assumptions that are valid at the time of estimation, may change significantly when new information becomes available

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- Exploration Executive Committee has been established to develop and implement strategy and review projects group-wide
- Dedicated exploration cell with a continuous focus on enhancing exploration capabilities
- Appropriate organisation and adequate financial allocation in place for the exploration
- Strategic priority is to add to our reserves and resources by extending resources at a faster rate than we deplete them, through continuous focus on the drilling and exploration programme
- Continue to make applications for new exploration tenements in countries in which we operate under their respective legislative regimes
- Exploration-related systems are being strengthened and standardised across the Group, and new technologies are being utilised wherever appropriate
- International technical experts and agencies are working closely with our exploration teams to enhance our capabilities

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**Breaches in IT / cybersecurity**

Like many global organisations, our reliance on computers and network technology is increasing. These systems could be subject to security breaches resulting in theft, disclosure, or corruption of key/strategic information. Security breaches could also result in misappropriation of funds or disruptions to our business operations. A cybersecurity breach could impact business operations.

**Risk direction: ◀▶**

- Group-level focus on formulating necessary frameworks, policies, and procedures in line with best practices and international standards
- Implementation and adoption of various best-in-class tools and technologies for information security to create a robust security posture
- RCM (Risk Control Metrix) and IT General Controls (ITGC) under SOx framework are performed as per defined frequency and effectiveness
- Structured and well-defined cyber security awareness program to cover all classes of stakeholders, including employees and the leadership
- Special focus to strengthen the security landscape of plant technical systems (PTS) through various initiatives
- Adoption of various international standards related to information security, disaster recovery and business continuity management, IT risk management and setting up of internal IT processes and practices in line with these standards
- Work towards ensuring strict adherence to IT-related SOPs to improve operating effectiveness, continuous focus on mandatory employee training on cybersecurity awareness
- Periodic assessment of entire IT system landscapes and governance framework from vulnerability and penetration perspective, undertaken by reputed expert agencies and addressing the identified observations in a time-bound manner

Structured and well-defined cyber security awareness programme in place to cover all classes of stakeholders from employees to leadership and will include Board members too.

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**Loss of assets or profit due to natural calamities**

Our operations may be subject to a number of circumstances not wholly within the Group's control. These include damage to or breakdown of equipment or infrastructure, unexpected geological variations or technical issues, extreme weather conditions and natural disasters – any of which could adversely affect production and/or costs.

**Risk direction: ◀▶**

- Vedanta has taken an appropriate Group insurance cover to mitigate this risk and an Insurance Council is in place to monitor the adequacy of coverage and status of claims
- An external agency reviews the risk portfolio and adequacy of this cover and assists us in reviewing our insurance portfolio
- We engage underwriters from reputed institutions to underwrite our risk
- Established mechanisms of periodic insurance review in place at all entities. However, any occurrence not fully covered by insurance could have an adverse effect on the Group's business
- Continuous monitoring and periodic review of security and insurance function
- Continue to focus on capability building within the Group

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**Cairn-related challenges**

**Risk direction: ◀▶**

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Cairn India has 70% participating interest in Rajasthan Block, the production sharing contract (PSC) of which was valid till 2020. The Government of India has granted its approval for a 10-year extension at less favourable terms, pursuant to its policy for extension of Pre-New Exploration and Licensing Policy (NELP) Exploration Blocks, subject to certain conditions. Ramp-up of production compared with what was envisaged may impact profitability.

- Rajasthan PSC extension for 10 years from May 15, 2020 to May 14, 2030 has been executed by the parties to the PSC on October 27, 2022

- The applicability of the Pre-NELP Extension Policy to the RJ Block is currently sub judice

Focussed efforts on managing production decline through:

- o Infill wells across producing fields
- o Enhanced recovery projects in key producing fields
- o Exploration drilling across the portfolio to add resources

- Project Management Committee and Project Operating Committee were set up to provide support to the outsourcing partner and address issues on time to enable better quality control and timely execution of growth projects

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## Compliance risks

### Regulatory and legal risk

#### Risk direction: ◀▶

We have operations in many countries around the globe. These may be impacted because of legal and regulatory changes in the countries in which we operate, resulting in higher operating costs, and/or restrictions such as the imposition or increase in royalties or taxation rates, export duty, impact on mining rights/bans, and changes in legislation.

- The Group and its business divisions monitor regulatory developments on an ongoing basis
- Business-level teams identify and meet regulatory obligations and respond to emerging requirements
- Focus on communicating our responsible mining credentials through representations to government and industry associations
- Continue to demonstrate the Group's commitment to sustainability through proactive environmental, safety and CSR practices. Ongoing engagement with local community/media/NGOs
- SOx-compliant subsidiaries
- Common compliance monitoring system being implemented in Group companies. Legal requirements and a responsible person for compliance have been mapped in the system
- Legal counsels within the Group continue to work on strengthening the compliance and governance framework and the resolution of legal disputes
- A competent in-house legal organisation is in place at all the businesses; these legal teams have been strengthened with the induction of senior legal professionals across all Group companies
- SOPs implemented across our businesses for compliance monitoring
- Greater focus on timely closure of key non-compliances
- Contract management framework was strengthened with the issue of boilerplate clauses across the Group, which will form a part of all contracts. All key contract types have also been standardised
- Framework for monitoring performance against anti-bribery and corruption guidelines is in place

### Tax-related matters

#### Risk direction: ◀▶

Our businesses are in a tax regime and changes in any tax structure, or any tax-related litigation may impact our profitability.

- Tax Council reviews all key tax litigations and provides advice to the Group
- Continue to engage with authorities concerned on tax matters
- Robust organisation in place at the business and Group-level to handle tax-related matters
- Continue to consult and obtain opinions from reputable tax consulting firms on major tax matters to mitigate tax risks on the Group and its subsidiaries
- Strengthened governance in foreign subsidiaries

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## Financial risks

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### Price (metal, oil, ore, power, others), currency and interest rate volatility

### Risk direction: ◀▶

Prices and demand for the Group's products may remain volatile/uncertain and could be influenced by global economic conditions, natural disasters, weather, pandemics, such as the COVID-19 outbreak, political instability, and so on. Volatility in commodity prices and demand may adversely affect our earnings, cash flow and reserves.

Our assets, earnings and cash flow are influenced by a variety of currencies due to our multi-geographic operations. Fluctuations in exchange rates of those currencies may have an impact on our financials.

- The Group's well-diversified portfolio acts as a hedge against fluctuations in commodities and delivers cashflow through the cycle
  - Pursue low-cost production, allowing profitable supply throughout the commodity price cycle
  - Vedanta considers exposure to commodity price fluctuations to be integral to the Group's business and its usual policy is to sell its products at prevailing market prices. Its policy is not to enter into price hedging arrangements other than for businesses of custom smelting and purchased alumina, where back-to-back hedging is used to mitigate pricing risks. Strategic hedge, if any, is taken after appropriate deliberations and due approval from ExCo
  - Our forex policy prohibits forex speculation
  - Robust controls in forex management to hedge currency risk liabilities on a back-to-back basis
  - Finance Standing Committee reviews all forex and commodity-related risks and suggests necessary course of action to business divisions
  - Seek to mitigate the impact of short-term currency movements on businesses by hedging short-term exposures progressively, based on their maturity. However, large, or prolonged movements in exchange rates may have a material adverse effect on the Group's businesses, operating results, financial condition and/or prospects
  - Notes to the financial statements in the Annual Report provide details of the accounting policy followed in calculating the impact of currency translation
  - Any sharp movements in commodity prices are discussed at the Group commercial and marketing Mancoms and suitable actions are discussed, deliberated and implemented
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### Major project delivery

Shortfall in the achievement of stated objectives of expansion projects, leading to challenges in achieving stated business milestones – existing and new growth projects.

### Risk direction: ▲

- Project management organisation cell set up at a Group level with the objective of monitoring growth project progress, extracting useful insights through market research, leveraging data analytics and benchmarking with best-in-class projects
- Empowered organisation structure in place to drive growth projects; project management systems streamlined to ensure full accountability and value stream mapping
  - Strong focus on safety aspects in the project
  - Geo-technical audits conducted by independent agencies
  - Engaged global engineering partner to do complete life of mine planning and capital efficiency analysis to ensure that the project objectives are in sync with the business plan and growth targets
  - Standard specifications and SOPs were developed for all operations to avoid variability; reputed contractors engaged to ensure the completion of the project on indicated timelines
  - Use of best-in-class technology and equipment to develop mines, ensuring the highest level of productivity and safety. Digitisation and analytics help improve productivity and recovery
  - Stage gate process to review risks and remedy at multiple stages on the way
  - Robust quality control procedures implemented to check the safety and quality of services/design/actual physical work
  - Use of a reputed international agency for Geotech modelling and technical support, wherever required

### Access to capital

The Group may be unable to meet its payment obligations when due or may be unable to borrow funds in the market at an acceptable price to fund actual or proposed commitments. A sustained adverse economic downturn and/or suspension of its operations in any business, affecting revenue and free cash flow generation, may cause stress on the Company's ability to raise financing at competitive terms.

### Risk direction: ◀▶

- Focussed team continues to work on proactive refinancing initiatives with an objective to contain cost and extend tenure
- Team is actively building the pipeline for long-term funds for near-to-medium term requirements, both for refinancing and growth capex
- Track record of good relations with banks, and of raising borrowings in the last few years
- Regular discussions with rating agencies to build confidence in operating performance
- Business teams ensure continued compliance with the Group's treasury policies that govern our financial risk management practices
- CRISIL and India ratings maintained ratings at "AA" with the outlook revised to negative from stable

## CONSOLIDATED INCOME STATEMENT

(US\$ million)

	Note	Year ended 31 March 2023			Year ended 31 March 2022		
		Before Special items	Special items (Note 6)	Total	Before Special items	Special items (Note 6)	Total
Revenue	5	18,141	142	18,283	17,619	-	17,619
Cost of sales		(14,178)	(259)	(14,437)	(11,870)	(57)	(11,927)
<b>Gross profit</b>		<b>3,963</b>	<b>(117)</b>	<b>3,846</b>	<b>5,749</b>	<b>(57)</b>	<b>5,692</b>
Other operating income		239	-	239	244	-	244
Distribution costs		(476)	-	(476)	(459)	-	(459)
Administrative expenses		(530)	-	(530)	(507)	-	(507)
Impairment (charge)/ reversal [net]	6	-	(61)	(61)	-	465	465
<b>Operating profit/ (loss)</b>		<b>3,196</b>	<b>(178)</b>	<b>3,018</b>	<b>5,027</b>	<b>408</b>	<b>5,435</b>
Investment revenue	7	251	-	251	153	-	153
Finance costs	8	(1,558)	-	(1,558)	(1,402)	-	(1,402)
Other gains and (losses) [net]	9	(79)	-	(79)	(38)	-	(38)
<b>Profit/ (Loss) before taxation (a)</b>		<b>1,810</b>	<b>(178)</b>	<b>1,632</b>	<b>3,740</b>	<b>408</b>	<b>4,148</b>
Net (expense)/tax credit (b)	10	(894)	100	(794)	(1,400)	(170)	(1,570)
<b>Profit/ (Loss) for the year (a+b)</b>		<b>916</b>	<b>(78)</b>	<b>838</b>	<b>2,340</b>	<b>238</b>	<b>2,578</b>
Attributable to:							
Equity holders of the parent		49	(54)	(5)	825	177	1,002
Non-controlling interests		867	(24)	843	1,515	61	1,576
<b>Profit/ (Loss) for the year</b>		<b>916</b>	<b>(78)</b>	<b>838</b>	<b>2,340</b>	<b>238</b>	<b>2,578</b>

## CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

(US\$ million)

	Year ended 31 March 2023	Year ended 31 March 2022
<b>Profit/ (Loss) for the year</b>	<b>838</b>	<b>2,578</b>
<b>Items that will not be reclassified subsequently to income statement:</b>		
Remeasurement of net defined benefit plans (note 26)	(1)	(2)
Tax effects on net defined benefit plans	1	0
(Loss)/gain on fair value of financial asset equity investment	(5)	2
<b>Total (a)</b>	<b>(5)</b>	<b>0</b>
<b>Items that may be reclassified subsequently to income statement:</b>		
Exchange differences arising on translation of foreign operations	(614)	(214)
Loss on fair value of financial asset debt investment	(4)	-
Gain/(loss) on cash flow hedges	430	(36)
Tax effects arising on cash flow hedges	(149)	12
(Gain)/ loss on cash flow hedges recycled to income statement	(428)	50
Tax effects arising on cash flow hedges recycled to income statement	150	(18)
<b>Total (b)</b>	<b>(615)</b>	<b>(206)</b>
<b>Other comprehensive loss for the year (a+b)</b>	<b>(620)</b>	<b>(206)</b>
<b>Total comprehensive income for the year</b>	<b>218</b>	<b>2,372</b>
Attributable to:		
Equity holders of the parent	(301)	906
Non-controlling interests	519	1,466
<b>Total comprehensive income for the year</b>	<b>218</b>	<b>2,372</b>



## CONSOLIDATED STATEMENT OF FINANCIAL POSITION

(US\$ million)

	Note	As at 31 March 2023	As at 31 March 2022
<b>Assets</b>			
<b>Non-current assets</b>			
Goodwill		12	12
Intangible assets		64	90
Property, plant and equipment		12,786	13,484
Exploration and evaluation assets		284	220
Financial asset investments	12	63	20
Non-current tax assets		328	365
Other non-current assets		1,680	1,718
Deferred tax assets		1,268	860
		<b>16,485</b>	<b>16,769</b>
<b>Current assets</b>			
Inventories		1,830	1,895
Trade and other receivables		2,279	2,479
Financial instruments (derivatives)		26	34
Current tax assets		45	3
Short-term investments	13	1,728	3,117
Cash and cash equivalents	14	1,037	1,328
		<b>6,945</b>	<b>8,856</b>
<b>Total assets</b>		<b>23,430</b>	<b>25,625</b>
<b>Liabilities</b>			
<b>Current liabilities</b>			
Borrowings	15(a)	5,809	4,972
Operational buyer's credit/supplier's credit		1,667	1,477
Trade and other payables		5,513	4,816
Financial instruments (derivatives)		23	70
Retirement benefits		8	14
Provisions		38	42
Current tax liabilities		191	122
		<b>13,249</b>	<b>11,513</b>
<b>Net current liabilities</b>		<b>(6,304)</b>	<b>(2,657)</b>
<b>Non-current liabilities</b>			
Borrowings	15(a)	9,549	11,110
Trade and other payables		219	254
Financial instruments (derivatives)		2	1
Deferred tax liabilities		866	764
Retirement benefits		27	21
Provisions		390	427
		<b>11,053</b>	<b>12,577</b>
<b>Total liabilities</b>		<b>24,302</b>	<b>24,090</b>
<b>Net assets</b>		<b>(872)</b>	<b>1,535</b>
<b>Equity</b>			
Share capital		29	29
Hedging reserve		(90)	(88)
Other reserves		(750)	(456)
Retained earnings		(2,537)	(2,598)
<b>Equity attributable to equity holders of the parent</b>		<b>(3,348)</b>	<b>(3,113)</b>
Non-controlling interests		2,476	4,648
<b>Total equity</b>		<b>(872)</b>	<b>1,535</b>

Financial Statements of Vedanta Resources Limited with registration number 4740415 were approved by the Board of Directors on 08 June 2023 and signed on their behalf by

AR Narayanaswamy

**Director**

Deepak Kumar

**Company Secretary**

## CONSOLIDATED CASH FLOW STATEMENT

(US\$ Million)

	Note	Year ended 31 March 2023	Year ended 31 March 2022
<b>Operating activities</b>			
Profit/(Loss) before taxation		1,632	4,148
<b>Adjustments for:</b>			
Depreciation and amortisation		1,382	1,228
Investment revenues		(251)	(153)
Finance costs		1,558	1,402
Other (gains) and losses (net)		79	38
Loss/(Gain) on disposal of Property plant and equipment		1	(17)
Share-based payment charge		11	14
Liabilities written back		(34)	(9)
Exploration costs written off		30	351
Impairment charge/ (reversal) of assets/asset under construction written off		61	(843)
Transfer of CSR Assets		15	-
Provision for doubtful debts (net)/advance/bad debts		53	-
Write off of Asset under construction, land & capital		-	27
Other special items		-	57
Other non cash items		(7)	-
<b>Operating cash flows before movements in working</b>		<b>4,530</b>	<b>6,243</b>
Increase in inventories		(92)	(585)
Decrease/ (Increase) in receivables		280	(4,465)
Increase in payables		363	4,281
<b>Cash generated from operations</b>		<b>5,081</b>	<b>5,474</b>
Dividend Received		2	-
Interest received		210	185
Interest paid		(1,503)	(1,559)
Income taxes paid (net of refunds)		(998)	(795)
Dividends paid		(16)	(131)
Refund of dividend distribution tax		10	-
<b>Net cash inflow from operating activities</b>		<b>2,786</b>	<b>3,174</b>
<b>Cash flows from investing activities</b>			
Purchases of property, plant and equipment, intangibles, exploration and evaluation assets		(1,700)	(1,407)
Proceeds on disposal of property, plant and equipment, intangibles, exploration and evaluation assets		16	44
Proceeds from redemption of short-term investments	15(b)	16,185	16,601
Purchases of short-term investments	15(b)	(15,092)	(14,603)
Purchase of long term investments		(30)	-
Payment made to site restoration fund		(16)	(20)
<b>Net cash inflow/(used in) in investing activities</b>		<b>(637)</b>	<b>615</b>
<b>Cash flows from financing activities</b>			
Payment for acquiring non-controlling interest		(2)	(1,971)
Dividends paid to non-controlling interests of subsidiaries		(2,523)	(1,075)
Proceeds/(repayment of) working capital loan (net)	15(b)	(118)	118
Proceeds from other short-term borrowings	15(b)	2,971	2,815
Repayment of other short-term borrowings	15(b)	(2,281)	(2,349)
Proceeds from long-term borrowings	15(b)	3,819	4,207
Repayment of long-term borrowings	15(b)	(4,317)	(4,893)
Payment of lease liabilities		(23)	(31)
<b>Net cash used in financing activities</b>		<b>(2,474)</b>	<b>(3,179)</b>
<b>Net increase/(decrease) in cash and cash equivalents</b>		<b>(325)</b>	<b>610</b>
Effect of foreign exchange rate changes		(83)	(45)
<b>Cash and cash equivalents at beginning of the year</b>		<b>1,266</b>	<b>701</b>
<b>Cash and cash equivalents at end of the year</b>	<b>14 &amp; 15(b)</b>	<b>858</b>	<b>1,266</b>

# CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the year ended 31 March 2023

(US\$ million)

Attributable to equity holders of the parent							
	Share capital	Hedging reserve	Other reserves <sup>1</sup>	Retained earnings	Total	Non-controlling Interests	Total equity
<b>At 01 April 2022</b>	<b>29</b>	<b>(88)</b>	<b>(456)</b>	<b>(2,598)</b>	<b>(3,113)</b>	<b>4,648</b>	<b>1,535</b>
Profit/ (Loss) for the year	-	-	-	(5)	(5)	843	838
Other comprehensive income/ (loss) for the year	-	(2)	(294)	-	(296)	(324)	(620)
<b>Total comprehensive income/ (loss) for the year</b>	<b>-</b>	<b>(2)</b>	<b>(294)</b>	<b>(5)</b>	<b>(301)</b>	<b>519</b>	<b>218</b>
Dividends paid/ payable	-	-	-	(18)	(18)	(2,825)	(2,843)
Exercise of stock options of subsidiary	-	-	-	7	7	8	15
Acquisition/sale of stake in Subsidiary <sup>3,4</sup>	-	-	-	63	63	137	200
Change in fair value of put option liability/conversion option asset/derecognition of non-controlling interest	-	-	-	7	7	(9)	(2)
Refund of Dividend Distribution Tax	-	-	-	7	7	3	10
Other changes in non-controlling interests <sup>2</sup>	-	-	-	-	-	(5)	(5)
<b>At 31 March 2023</b>	<b>29</b>	<b>(90)</b>	<b>(750)</b>	<b>(2,537)</b>	<b>(3,348)</b>	<b>2,476</b>	<b>(872)</b>

1. Other reserves comprise the currency translation reserve, merger reserve, investment revaluation reserve, debenture redemption reserve, capital redemption reserve and the general reserves established in the statutory accounts of the Group's subsidiaries.
2. Includes share-based payment charge by subsidiaries.
3. During the current year ended 31 March 2023, Ferro Alloys Corporation Limited (FACOR), wholly owned subsidiary of Vedanta Limited, acquired 20,000,000 shares in its subsidiary, Facor Power Limited (FPL), increasing its stake from 90% to 98.69%. On 21 November 2022, FPL amalgamated with Facor. Refer Note 3(c).
4. During the current year ended 31 March 2023, VRL, through its subsidiary Vedanta Netherlands Investment B.V. (VNIB) reduced its shareholding from 63,514,714 shares to 5,014,714 equity shares of Vedanta Limited ("VEDL") thereby decreasing its overall stake from 69.68% to 68.10% of the total paid-up share capital of VEDL.

**For the year ended 31 March 2022**

(US\$ million)

	Attributable to equity holders of the parent						
	Share capital	Hedging reserve	Other reserves <sup>1</sup>	Retained earnings	Total	Non-controlling Interests	Total equity
<b>At 01 April 2021</b>	<b>29</b>	<b>(97)</b>	<b>(296)</b>	<b>(2,783)</b>	<b>(3,147)</b>	<b>5,478</b>	<b>2,331</b>
Profit for the year	-	-	-	1,002	1,002	1,576	2,578
Other comprehensive income/ (loss) for the year	-	9	(105)	-	(96)	(110)	(206)
<b>Total comprehensive income/ (loss) for the year</b>	<b>-</b>	<b>9</b>	<b>(105)</b>	<b>1,002</b>	<b>906</b>	<b>1,466</b>	<b>2,372</b>
Transfers	-	-	(55)	55	-	-	-
Dividends paid/ payable	-	-	-	(131)	(131)	(1,075)	(1,206)
Exercise of stock options of subsidiary	-	-	-	7	7	6	13
Acquisition of stake in Subsidiary <sup>3</sup>	-	-	-	(752)	(752)	(1,219)	(1,971)
Change in fair value of put option liability/conversion option asset/derecognition of non-controlling interest	-	-	-	4	4	(4)	0
Other changes in non-controlling interests <sup>2</sup>	-	-	-	-	-	(4)	(4)
<b>At 31 March 2022</b>	<b>29</b>	<b>(88)</b>	<b>(456)</b>	<b>(2,598)</b>	<b>(3,113)</b>	<b>4,648</b>	<b>1,535</b>

1. Other reserves comprise the currency translation reserve, merger reserve, investment revaluation reserve, debenture redemption reserve, capital redemption reserve and the general reserves established in the statutory accounts of the Group's subsidiaries.

2. Includes share-based payment charge by subsidiaries.

3. During the year ended 31 March 2022, VRL, through its subsidiaries, purchased 541,731,161 equity shares of Vedanta Limited ("VEDL") thereby increasing its overall stake from 55.11% to 69.68% of the total paid-up share capital of VEDL.

## OTHER RESERVES COMPRISE

(US\$ million)

	Currency translation reserve	Merger reserve <sup>(2)</sup>	Financial asset investment revaluation reserve	Capital reserve	Other reserves <sup>(3)</sup>	Total
<b>At 01 April 2021</b>	<b>(2,512)</b>	<b>4</b>	<b>11</b>	<b>29</b>	<b>2,172</b>	<b>(296)</b>
Exchange differences on translation of foreign operations	(105)	-	-	-	-	(105)
Gain on fair value of financial asset investments	-	-	1	-	-	1
Remeasurements	-	-	-	-	(1)	(1)
Transfer to retained earnings <sup>(1)</sup>	-	-	-	-	(55)	(55)
<b>At 31 March 2022</b>	<b>(2,617)</b>	<b>4</b>	<b>12</b>	<b>29</b>	<b>2,116</b>	<b>(456)</b>
Exchange differences on translation of foreign operations	(289)	-	-	-	-	(289)
Gain on fair value of financial asset investments	-	-	(5)	-	-	(5)
Remeasurements	-	-	-	-	0	0
<b>At 31 March 2023</b>	<b>(2,906)</b>	<b>4</b>	<b>7</b>	<b>29</b>	<b>2,116</b>	<b>(750)</b>

(1) Transfer to retained earnings during the year ended 31 March 2023 includes withdrawal of Nil from debenture redemption reserve (31 March 2022: US\$ 55 million from debenture redemption reserve).

(2) The merger reserve arose on incorporation of the Company during the year ended 31 March 2004. The investment in Twin Star had a carrying amount value of US\$ 20 million in the accounts of Volcan. As required by the Companies Act 1985, Section 132, upon issue of 156,000,000 Ordinary shares to Volcan, Twin Star's issued share capital and share premium account have been eliminated and a merger reserve of US\$ 4 million arose, being the difference between the carrying value of the investment in Twin Star in Volcan's accounts and the nominal value of the shares issued to Volcan.

(3) Other reserves include legal reserves of US\$ 4 million (31 March 2022: US\$ 4 million), debenture redemption reserve of US\$ 36 million (31 March 2022 US\$ 36 million) and balance mainly includes general reserve and capital redemption reserve. Debenture redemption reserve is required to be created under the Indian Companies Act from annual profits until such debentures are redeemed. Legal reserve is required to be created by Fujairah Gold by appropriation of 10 % of profits each year until the balance reaches 50% of the paid-up share capital. This reserve is not available for distribution except in circumstances stipulated by the Articles of Incorporation. Under the erstwhile Indian Companies Act, 1956, general reserve was created in relation to Group's Indian subsidiaries through an annual transfer of net income to general reserve at a specified percentage in accordance with applicable regulations. The purpose of these transfers is to ensure that the total dividend distribution is less than total distributable reserves for that year. The said requirement was dispensed with w.e.f. 01 April 2013 and there are no restrictions on use of these reserves.

## Group Overview

Vedanta Resources Limited (“Vedanta” or “VRL” or “Company”) is a company incorporated and domiciled in the United Kingdom. Registered address of the Company is 8th Floor, 20 Farringdon Street, London, EC4A 4AB. Vedanta and its consolidated subsidiaries (collectively, the “Group”) is a diversified natural resource group engaged in exploring, extracting and processing minerals and oil and gas. The Group engages in the exploration, production and sale of zinc, lead, silver, copper, aluminium, iron ore and oil and gas and has a presence across India, South Africa, Namibia, Ireland, Australia, Liberia and UAE. The Group is also in the business of commercial power generation, steel manufacturing and port operations in India and manufacturing of glass substrate in South Korea and Taiwan.

Details of Group’s various businesses are as follows.

- Zinc India business is owned and operated by Hindustan Zinc Limited (“HZL”).
- Zinc international business comprises Skorpion mine and refinery in Namibia operated through THL Zinc Namibia Holdings (Proprietary) Limited (“Skorpion”), Lisheen mine in Ireland operated through Vedanta Lisheen Holdings Limited (“Lisheen”) (Lisheen mine ceased operations in December 2015) and Black Mountain Mining (Proprietary) Limited (“BMM”), whose assets include the operational Black Mountain mine and the Gamsberg mine project located in South Africa.
- The Group’s oil and gas business is owned and operated by Vedanta Limited and its subsidiary, Cairn Energy Hydrocarbons Limited and consists of exploration, development and production of oil and gas.
- The Group’s iron ore business is owned by the Vedanta Limited, and by its wholly owned subsidiary, i.e., Sesa Resources Limited and consists of exploration, mining and processing of iron ore, pig iron and metallurgical coke and generation of power for captive use. Pursuant to the Honourable Supreme Court of India order, mining operations in the state of Goa were suspended. During the current year, the Government of Goa has initiated auction of mines in which the Group has participated. The Group has been declared as the principal bidder for the Bicholim mine and has received the Letter of Intent (LOI) from the Government of Goa.

In addition, the Group’s iron ore business also includes a wholly owned subsidiary, Western Cluster Limited (“WCL”) in Liberia which has iron ore assets. WCL’s assets include development rights to Western Cluster and a network of iron ore deposits in West Africa. During the current year, WCL has signed a Memorandum of Understanding with the Government of Liberia to re-start its mining operations in Liberia. Commercial production of saleable ore commenced from July 2022 followed by shipments from December 2022.

- The Group's copper business is owned and operated by Vedanta Limited, Copper Mines of Tasmania Pty Ltd (“CMT”) and Fujairah Gold FZC and is principally one of custom smelting captive power plants at Tuticorin in Southern India.

The Group’s copper business in Tamil Nadu, India has received an order from the Tamil Nadu Pollution Control Board (“TNPCB”) on 09 April 2018, rejecting the Group’s application for renewal of consent to operate under the Air and Water Acts for the 400,000 TPA copper smelter plant in Tuticorin for want of further clarification and consequently the operations were suspended. The Group has filed an appeal with TNPCB Appellate authority against the said order. During the pendency of the appeal, TNPCB through its order dated 23 May 2018 ordered for disconnection of electricity supply and closure of copper smelter plant. Post such order, the state government on 28 May 2018 ordered the permanent closure of the plant. We continue to engage with the Government of India and relevant authorities to enable the restart of operations at Copper India. [Refer note 2(c)(I)(iii)].

Further, the Group’s copper business includes refinery and rod plant at Silvassa consisting of a 245,000 tonnes of blister/ secondary material processing plant, a 216,000 TPA copper refinery

plant and a copper rod mill with an installed capacity of 258,000 TPA. The plant continues to operate as usual, catering to the domestic market.

In addition, the Group owns and operates the Mt. Lyell copper mine in Tasmania, Australia through its subsidiary, CMT and a precious metal refinery and copper rod plant in Fujairah, UAE through its subsidiary Fujairah Gold FZC. The operations of Mt Lyell copper mine were suspended in January 2014 following a mud slide incident and were put into care and maintenance since 09 July 2014 following a rock fall incident in June 2014. In November 2021, the Group executed an arrangement with a third party for further exploration with an option to fully divest its shareholding in return for royalties on successful mining and production.

- The Group's Aluminium business is owned and operated by Vedanta Limited and by Bharat Aluminium Company Limited ("BALCO"). The aluminium operations include a refinery and captive power plant at Lanjigarh and a smelter and captive power plants at Jharsuguda both situated in the State of Odisha in Eastern India. BALCO's partially integrated aluminium operations comprise two bauxite mines, captive power plants, smelting and fabrication facilities in the State of Chhattisgarh in central India.
- The Group's power business is owned and operated by Vedanta Limited, BALCO, and Talwandi Sabo Power Limited ("TSPL"), a wholly owned subsidiary of the Vedanta Limited, which are engaged in the power generation business in India. Vedanta Limited power operations include a thermal coal- based commercial power facility of 600 MW at Jharsuguda in the State of Odisha in Eastern India. BALCO power operations included 600 MW (2 units of 300 MW each) thermal coal-based power plant at Korba, of which a unit of 300 MW was converted to be used for captive consumption vide order from the Central Electricity Regulatory Commission (CERC) dated 01 January 2019. Talwandi Sabo Power Limited ("TSPL") power operations include 1,980 MW (three units of 660 MW each) thermal coal- based commercial power facilities. Power business also includes the wind power plants commissioned by HZL and a power plant at MALCO Energy Limited ("MEL") (under care and maintenance) situated at Mettur Dam in the State of Tamil Nadu in southern India.
- The Group's other activities include ESL Steel Limited ("ESL") (formerly known as Electrosteel Steels Limited). ESL is engaged in the manufacturing and supply of billets, TMT bars, wire rods and ductile iron pipes in India.

The Group's other business also include Vizag General Cargo Berth Private Limited ("VGCB") and Maritime Ventures Private Limited ("MVPL"). Vizag port project includes mechanization of coal handling facilities and upgradation of general cargo berth for handling coal at the outer harbour of Visakhapatnam Port on the east coast of India. MVPL is engaged in the business of rendering logistics and other allied services inter alia rendering stevedoring, and other allied services in ports and other allied sectors. VGCB commenced operations in the fourth quarter of fiscal 2013. The Group's other business also include AvanStrate Inc. ("ASI"), Ferro Alloys Corporation Limited ("FACOR") and Desai Cement Company Private Limited ("DCCPL"). ASI is involved in the manufacturing of glass substrate in South Korea and Taiwan. FACOR is involved in manufacturing of Ferro Alloys, mining of chrome ore and generation of power. It owns a ferro chrome plant with a capacity of approximately, 140,000 TPA, 100 MW power plant and a mine in Sukinda valley with current capacity of 290,000 TPA. DCCPL is involved in business of producing slag cements and owns three ball mills with capacity of 218,000 TPA.

### **Delisting of American Depositary Shares ("ADSs") of Vedanta Limited**

The American Depositary Shares (ADS) of the Vedanta Limited ('VEDL') have been delisted from NYSE effective close of trading on NYSE on 08 November 2021. In furtherance to the delisting of ADS, VEDL had filed form 15F on 01 December 2022 with the U.S. Securities Exchange Commission ("SEC") to deregister the ADSs and the underlying equity shares pursuant to the U.S. Securities Exchange Act of 1934, as amended ("Exchange Act"). As a result, the Company's reporting



obligations under the Exchange Act are ceased and the Company has been deregistered from SEC under the Exchange Act effective 01 March 2023.

## Notes to the preliminary announcement

### **1(a). General information and accounting policies**

This preliminary results announcement is for the year ended 31 March 2023. While the financial information contained in this preliminary results announcement has been prepared in accordance with the recognition and measurement criteria of International Financial Reporting Standards (“IFRS”), this announcement does not itself contain sufficient information to comply with IFRS. For these purposes, IFRS comprise the Standards issued by the International Accounting Standards Board (“IASB”) and Interpretations issued by the IFRS Interpretations Committee (“IFRIC”) that have been endorsed by the United Kingdom (“UK adopted IFRS”). The financial information contained in the preliminary announcement has been prepared on the same basis of accounting policies as set out in the previous financial statements unless otherwise stated. The standards/amendments applicable with effect from 01 April 2022 did not have any significant impact on the amounts reported in the financial statements. The Company expects to publish full financial statements that comply with IFRSs in due course.

Certain comparative figures appearing in these consolidated financial statements have been regrouped and/or reclassified to better reflect the nature of those items.

### **1(b) Going concern**

The Group has prepared the consolidated financial statements on a going concern basis. The Directors have considered a number of factors in concluding on their going concern assessment.

The Group monitors and manages its funding position and liquidity requirements throughout the year and routinely forecasts its future cash flows and financial position. The key assumptions for these forecasts include production profiles, commodity prices and financing activities.

Prior to current period, the last going concern assessment carried out for the period ended 30 September 2022 was approved by the Board of Directors in December 2022. The Directors were confident that the Group will be able to operate within the levels of its current facilities for the foreseeable future, that the Group will be able to roll-over or obtain external financing as required and that prices will remain within their expected range.

While the mitigating actions as highlighted in the period ended 30 September 2022 financial statements remain available to the Group, following recent significant developments have had a positive bearing on the liquidity and Company’s ability to continue as a going concern;

- a. Vedanta has raised new term loans for refinancing of US\$ 950 million and short-term loans of US\$ 350 million for a period ranging from 6 months to 1 year.

The Directors consider that the expected operating cash flows of the Group combined with the current finance facilities which are in place give them confidence that the Group has adequate resources to continue as a going concern.

The Directors have considered the Group’s ability to continue as a going concern in the period to 30 September 2024 (“the going concern period”) under both a base case and a downside case.

The downside case assumes, amongst other sensitivities, delayed ramp-up and re-opening of projects, deferment of additional capital expenditure and a conservative assumption of uncommitted refinancing.

- **Covenant Compliance**

The Group’s financing facilities, including bank loans and bonds, contain covenants requiring the Group to maintain specified financial ratios. The Group has complied with all the covenant requirements till 31 March 2023.

The Directors of the Group are confident that the Group will be able to comply requisite covenants for the going concern period and will be able to execute mitigating actions as mentioned below, to ensure that the Group avoids, or secures waivers or relaxations for future period breaches, if any, of its covenants during the going concern period.

### **Mitigating actions**

The mitigating options available to the Group and Company to address the uncertainties in relation to going concern include:

- Execution of an off-take agreement covering certain future production and amounting potentially to c. US\$ 1 billion. The Group is currently negotiating with a number of interested bidders for an off-take agreement, under which the Group would receive an advance payment in return for supply of certain future production. However, no agreement has been concluded and there is a therefore uncertainty as to the Group's ability to access these funds.
- Extension of working capital facilities and rollover of commercial papers: As at 31 March 2023, the Group had unutilised working capital facilities amounting to c. US\$ 1.4 billion and commercial papers in issue amounting to c. US\$ 0.6 billion. These facilities are not committed for the full duration of the going concern period to September 2024, but rather must be extended or rolled over. There is therefore a risk that, in adverse market conditions, the Group would not be able to extend or roll over these facilities. However, the Directors assess that the Group has a strong record of extending and rolling over these short-term facilities and has historically had significantly higher levels of commercial papers in issue.
- Access to buyer's/supplier's credit and customer advances: As at 31 March 2023, the Group had c. US\$ 1.7 billion of supplier's credit and c. US\$ 0.9 billion of advances from customers. These financing arrangements are integral to the business of certain Group divisions but are not committed for the full duration of the going concern period. There is therefore a risk that the Group will not be able to access these financing arrangements in the future. Nevertheless, the Directors note that the Group has in the past consistently obtained supplier credit and customer advances at current levels.

### **Conclusion**

Notwithstanding the factors described above, the Directors have confidence in Group's ability to execute sufficient mitigating actions. Based on these considerations, the Directors have a reasonable expectation that the Group and the Company will meet its commitments as they fall due over the going concern period. Accordingly, the Directors continue to adopt the going concern basis in preparing the Group's consolidated financial statements and Company's standalone financial statements.

### **2(a) Compliance with applicable law and IFRS**

The financial information contained in this preliminary results announcement has been prepared on the going concern basis. This preliminary results announcement does not constitute the Group's statutory accounts as defined in section 434 of the Companies Act 2006 (the "Act") but is derived from those accounts. The statutory accounts for the year ended 31 March 2023 have been approved by the Board and will be delivered to the Registrar of Companies following approval by the Company's shareholders. The auditors have reported on those accounts and their report was unqualified. Their report did not contain statements under section 498(2) of the Act (regarding adequacy of accounting records and returns) or under section 498(3) (regarding provision of necessary information and explanations).

The information contained in this announcement for the year ended 31 March 2022 also does not constitute statutory accounts. A copy of the statutory accounts for that year has been delivered to the Registrar of Companies. The auditors' report on those accounts was unqualified, with no matters by way of emphasis, and did not contain statements under section 498(2) or (3) of the Companies Act 2006.

## 2(b) Application of new and revised standards

The Group has adopted, with effect from 01 April 2022, the following new and revised standards and interpretations. Their adoption has not had any significant impact on the amounts reported in the consolidated financial statements.

1. Property, Plant and Equipment: Proceeds before Intended Use – Amendments to IAS 16;
2. Reference to the Conceptual Framework- Amendments to IFRS 3;
3. Onerous Contracts – Costs of Fulfilling a Contract – Amendments to IAS 37;
4. IFRS 9 Financial Instruments – Fees in the '10 per cent' test for derecognition of financial liabilities.

## Standards issued but not yet effective

The new and amended standards that are issued, but not yet effective, up to the date of issuance of the Group's financial statements are disclosed below:

New pronouncement	Effective date
IFRS 17 Insurance Contracts	01 January 2023
Definition of Accounting Estimates - Amendments to IAS 8	01 January 2023
Disclosure of Accounting Policies - Amendments to IAS 1 and IFRS Practice Statement 2	01 January 2023
Deferred Tax related to Assets and Liabilities arising from a Single Transaction – Amendments to IAS 12	01 January 2023
Lease Liability in a Sale and Leaseback – Amendments to IFRS 16	01 January 2024
Classification of Liabilities as Current or Non-current - Amendments to IAS 1	01 January 2024

The amendments are not expected to have a material impact on the Group. The Group has not early adopted any amendments which has been notified but is not yet effective.

## 2(c) Significant accounting estimates and judgements

The preparation of consolidated financial statements in conformity with UK adopted IFRS requires management to make judgements, estimates and assumptions, that affect the application of accounting policies and the reported amounts of assets, liabilities, income, expenses and disclosures of contingent assets and liabilities at the date of these consolidated financial statements and the reported amounts of revenues and expenses for the years presented. These judgments and estimates

are based on management's best knowledge of the relevant facts and circumstances, having regard to previous experience, but actual results may differ materially from the amounts included in the financial statements.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised and future periods affected.

The information about significant areas of estimation uncertainty and critical judgements in applying accounting policies that have the most significant effect on the amounts recognised in the financial statements are as given below:

### ***I. Significant Estimates:***

#### *(i) Carrying value of exploration and evaluation assets*

The recoverability of a project is assessed under IFRS 6. Exploration assets are assessed by comparing the carrying value to higher of fair value less cost of disposal or value in use, if impairment indicators exist. Change to the valuation of exploration assets is an area of judgement. Further details on the Group's accounting policies on this are set out in accounting policy above. The amounts for exploration and evaluation assets represent active exploration projects. These amounts will be written off to the consolidated income statement as exploration costs unless commercial reserves are established, or the determination process is not completed and there are no indications of impairment. The outcome of ongoing exploration, and therefore whether the carrying value of exploration and evaluation assets will ultimately be recovered, is inherently uncertain.

#### *(ii) Recoverability of deferred tax and other income tax assets*

The Group has carried forward tax losses, unabsorbed depreciation and MAT credit that are available for offset against future taxable profit. Deferred tax assets are recognised only to the extent that it is probable that taxable profit will be available against which the unused tax losses or tax credits can be utilized. This involves an assessment of when those assets are likely to reverse, and a judgement as to whether or not there will be sufficient taxable profits available to offset the assets. This requires assumptions regarding future profitability, which is inherently uncertain. To the extent assumptions regarding future profitability change, there can be an increase or decrease in the amounts recognised in respect of deferred tax assets and consequential impact in the consolidated income statement.

The total deferred tax assets recognised in these financial statements include MAT credit entitlements of US\$ 1,148 million (31 March 2022: US\$ 894 million) of which US\$ 327 million (31 March 2022: US\$ 28 Million) is expected to be utilised in the fourteenth year and fifteenth year, the maximum permissible time period to utilise the MAT credits.

During year ended 31 March 2021, ESL recognised deferred tax assets of US\$ 434 million based on management's estimate of future outlook, financial projections and requirements of IAS 12. During the year ended 31 March 2023, ESL derecognized deferred tax assets on losses expired in the current year amounting to US\$ 12 million (31 March 2022: US\$ 16 million). Based on revised financial forecasts, it is probable to realise the remaining deferred tax assets.

#### *iii) Copper operations in Tamil Nadu, India*

Tamil Nadu Pollution Control Board ("TNPCB") had issued a closure order of the Tuticorin Copper smelter, against which the Group had filed an appeal with the National Green Tribunal ("NGT"). NGT had, on 08 August 2013, ruled that the Copper smelter could continue its operations subject to implementation of recommendations of the Expert Committee appointed by the NGT. The TNPCB has filed an appeal against the order of the NGT before the Supreme Court of India.

In the meanwhile, the application for renewal of Consent to Operate ("CTO") for existing copper smelter was rejected by TNPCB in April 2018. The Group has filed an appeal before the TNPCB Appellate Authority challenging the Rejection Order. During the pendency of the appeal, the TNPCB

vide its order dated 23 May 2018 ordered closure of existing copper smelter plant with immediate effect. Further, the Government of Tamil Nadu issued orders on the same date with a direction to seal the existing copper smelter plant permanently. The Group believes these actions were not taken in accordance with the procedure prescribed under applicable laws. Subsequently, the Directorate of Industrial Safety and Health passed orders dated 30 May 2018, directing the immediate suspension and revocation of the Factory License and the Registration Certificate for the existing smelter plant. The Group appealed this before the NGT. NGT vide its order on 15 December 2018 has set aside the impugned orders and directed the TNPCB to pass fresh orders for renewal of consent and authorization to handle hazardous substances, subject to appropriate conditions for protection of environment in accordance with law.

The State of Tamil Nadu and TNPCB approached Supreme Court in Civil Appeals on 02 January 2019 challenging the judgement of NGT dated 15 December 2018 and the previously passed judgement of NGT dated 08 August 2013. The Supreme Court vide its judgement dated 18 February 2019 set aside the judgements of NGT dated 15 December 2018 and 08 August 2013 solely on the basis of maintainability and directed the Group to file an appeal in High court.

The Group has filed a writ petition before the Madras High Court challenging the various orders passed against it in FY 2018 and FY 2013. On 18 August 2020, the Madras High Court delivered the judgement wherein it dismissed all the Writ Petitions filed by the Group. Thereafter, the Group has approached the Supreme Court and challenged the said High Court order by way of a Special Leave Petition ("SLP"). The SLP is now listed for hearing and final disposal at the top of the TNPCB on 22 August 2023 and 23 August 2023.

The Interlocutory Applications filed by the Group seeking essential care and maintenance of the Plant and removal of materials from the plant premises were heard on 10 April 2023 where the Supreme Court allowed certain activities such as gypsum evacuation, operation of Secured Landfill (SLF) leachate sump pump, Bund rectification of SLF and green-belt maintenance.

As per the Group's assessment, it is in compliance with the applicable regulations and expects to get the necessary approvals in relation to the existing operations and hence the Group does not expect any material adjustments to these financial statements as a consequence of above actions.

The Group has carried out an impairment analysis for existing plant assets during the year ended 31 March 2023 considering various scenarios and possibilities, and concluded on balance of probabilities that there exists no impairment.

The carrying value of the assets as at 31 March 2023 is US\$ 209 million (US\$ 229 million as at 31 March 2022).

#### **Expansion Plant:**

Separately, the Group has filed a fresh application for renewal of the Environmental Clearance for the proposed Copper Smelter Plant 2 ("Expansion Project") dated 12 March 2018 before the Expert Appraisal Committee of the Ministry of Environment, Forests and Climate Change ("the MoEFCC") wherein a sub-committee was directed to visit the Expansion Project site prior to prescribing the Terms of Reference.

In the meantime, the Madurai Bench of the Madras High Court in a Public Interest Litigation held vide its order dated 23 May 2018 that the application for renewal of the Environmental Clearance for the Expansion Project shall be processed after a mandatory public hearing and in the interim, ordered the Group to cease construction and all other activities on site for the proposed Expansion Project with immediate effect. The MoEFCC has delisted the Expansion Project since the matter is sub-judice. Separately, SIPCOT vide its letter dated 29 May 2018, cancelled 342.22 acres of the land allotted for the proposed Expansion Project. Further, the TNPCB issued orders on 07 June 2018 directing the withdrawal of the Consent to Establish ("CTE") which was valid till 31 March 2023.

The Group has also appealed this action before the TNPCB Appellate Authority. The matter has been adjourned until the conclusion of special leave petition filed before the Supreme Court.

The Group has approached Madras High Court by way of writ petition challenging the cancellation of lease deeds by SIPCOT pursuant to which an interim stay has been granted. The Group has also appealed this action before the TNPCB Appellate Authority. The matter has been adjourned until the conclusion of special leave petition filed before the Supreme Court. Considering the delay in existing plant matter and accordingly delay in getting the required approval for Expansion Project, management considered to make provision for impairment for Expansion Project basis fair value less cost of disposal. The net carrying value of US\$ 2 million as at 31 March 2023 (31 March 2022: US\$ 5 million) approximates its recoverable value.

Property, plant and equipment of US\$ 103 million and inventories of US\$ 33 million, pertaining to existing and expansion plant, could not be physically verified, anytime during the year, as the access to the plant is presently restricted. However, any difference between book and physical quantities is unlikely to be material.

(iv) ESL - CTO

ESL Steel Limited ("ESL"), had filed application for renewal of CTO on 24 August 2017 for the period of five years which was denied by Jharkhand State Pollution Control Board ("JSPCB") on 23 August 2018, as JSPCB awaited response from The MoEFCC over a 2012 show-cause notice. After a personal hearing towards the show cause notice, The MoEFCC revoked the Environment Clearance ("EC") on 20 September 2018. The High Court of Jharkhand granted stay against both revocation orders and allowed the continuous running of the plant operations under regulatory supervision of the JSPCB. Jharkhand High Court, on 16 September 2020, passed an order vacating the interim stay in place beyond 23 September 2020, while listed the matter for final hearing. ESL urgently filed a petition in the Hon'ble Supreme Court, and on 22 September 2020, ESL was granted permission to run the plant till further orders.

The Forest Advisory Committee ("FAC") of the MoEFCC granted the Stage 1 clearance and the MoEFCC approved the related Terms of Reference ("TOR") on 25 August 2020. ESL presented its proposal before the Expert Appraisal Committee ("EAC") after completing the public consultation process and the same has been recommended for grant of EC subject to Forest Clearance by the EAC in its 41st meeting dated 29 and 30 July 2021. Vide letter dated 25 August 2021, the MoEFCC rejected the EC "as of now" due to stay granted by Madras High Court vide order dated 15 July 2021 in a Public Interest Litigation filed against the Standard Operating Procedure which was issued by the MoEFCC for regularization of violation case on 07 July 2021.

The Hon'ble Supreme Court vide order dated 09 December 2021 decided the matter by directing The MoEFCC to process the EC application of ESL as per the applicable law within a period of three months. The MoEFCC vide its letter dated 02 February 2022 has deferred the grant of EC till Forest Clearance ("FC") Stage-II is granted to ESL. ESL has submitted its reply against the MoEFCC letter vide letter dated 11 February 2022 for reconsidering the decision of linking EC with FC as the grant of FC Stage – II is not a condition precedent for grant of EC. As per Stage 1 clearance, the Group is required to provide non-forest land in addition to the afforestation cost. The Group, based on the report of an Environment Impact Assessment consultant, had recognised a provision of \$ 26 million as part of special item during the year ended 31 March 2021 with respect to the costs to be incurred by it for obtaining EC and additional \$ 1 million has been provided against final order relating to wildlife conservation plan received during the previous year. Management believes no further provision is required.

(v) *Discontinued operations - Copper Zambia (KCM)*

The investment in KCM and loans, receivables, and obligations of KCM towards the Group are fair valued during the year. The Group employed third-party experts to undertake the valuations using the income approach method. In this approach, the discounted cash flow method was used to capture the present value of the expected future economic benefits to be derived from the ownership of these assets. The resulting valuation is adjusted to reflect several factors, including the uncertainty and risks inherent in litigation and recovery. Details of significant estimates are disclosed in note 3(a).

*(vi) Oil and Gas reserves*

Significant technical and commercial judgements are required to determine the Group's estimated oil and natural gas reserves. Oil and Gas reserves are estimated on a proved and probable entitlement interest basis. Proven and probable reserves are estimated using standard recognised evaluation techniques. The estimate is reviewed annually. Future development costs are estimated taking into account the level of development required to produce the reserves by reference to operators, where applicable and internal engineers.

Net entitlement reserves estimates are subsequently calculated using the Group's current oil price and cost recovery assumptions, in line with the relevant agreements.

Changes in reserves as a result of factors such as production cost, recovery rates, grade of reserves or oil and gas prices could impact the depletion rates, carrying value of assets and environmental and restoration provisions.

*(vii) Carrying value of developing/producing oil and gas assets*

Management performs impairment tests on the Group's developing/producing oil and gas assets where indicators of impairment are identified in accordance with IAS 36.

The impairment assessments are based on a range of estimates and assumptions, including:

<b>Estimates/ assumptions</b>	<b>Basis</b>
Future production	proved and probable reserves, production facilities, resource estimates and expansion projects
Commodity prices	management's best estimate benchmarked with external sources of information, to ensure they are within the range of available analyst forecast
Discount to price	management's best estimate based on historical prevailing discount and updated sales contracts
Period	for Rajasthan block, cash flows are considered based on economic life of the fields.
Discount rates	cost of capital risk-adjusted for the risk specific to the asset/ CGU

Any subsequent changes to cash flows due to changes in the above-mentioned factors could impact the carrying value of the assets.

Details of impairment charge and the assumptions used are disclosed in note 6.

*(viii) Climate Change*

The Group aims to achieve net carbon neutrality by 2050 and has outlined its climate risk assessment and opportunities in the ESG strategy. Climate change may have various impacts on the Group in the medium to long term. These impacts include the risks and opportunities related to the demand of products and services, impact due to transition to a low-carbon economy, disruption to the supply chain, risk of physical harm to the assets due to extreme weather conditions, regulatory changes etc. The accounting related measurement and disclosure items that are most impacted by our commitments, and climate change risk more generally, relate to those areas of the financial statements that are prepared under the historical cost convention and are subject to estimation uncertainties in the medium to long term.

The potential effects of climate change may be on assets and liabilities that are measured based on an estimate of future cash flows. The main ways in which potential climate change impacts have been considered in the preparation of the financial statements, pertain to (a) inclusion of capex in cash flow projections, (b) recoverable amounts of existing assets and (c) review of estimates of useful lives of property, plant and equipment.



The Group's strategy consists of mitigation and adaptation measures. The Group is committed to reduce its carbon footprint by limiting its exposure to coal-based projects and reducing its GHG emissions through high impact initiatives such as investment in Renewable Energy, fuel switch, electrification of vehicles and mining fleet and energy efficiency opportunities. Renewable sources have limitations in supplying round the clock power, so existing power plants would support transition and fleet replacement is part of normal lifecycle renewal. The group has also taken certain measures towards water management such as commissioning of sewage treatment plants, rainwater harvesting, and reducing fresh water consumption. These initiatives are aligned with the group's ESG strategy and no material changes were identified to the financial statements as a result.

As the Group's assessment of the potential impacts of climate change and the transition to a low-carbon economy continues to mature, any future changes in Group's climate change strategy, changes in environmental laws and regulations and global decarbonisation measures may impact the Group's significant judgments and key estimates and result in changes to financial statements and carrying values of certain assets and liabilities in future reporting periods. However, as of the balance sheet date, the Group believes that there is no material impact on carrying values of its assets or liabilities.

## **II. Significant Judgements:**

### *(i) Determining whether an arrangement contains a lease*

The Group has ascertained that the Power Purchase Agreement (PPA) executed between one of the subsidiaries and a State Grid qualifies to be an operating lease under IFRS 16 "Leases". Accordingly, the consideration receivable under the PPA relating to recovery of capacity charges towards capital cost have been recognised as operating lease rentals and in respect of variable cost that includes fuel costs, operations and maintenance etc is considered as revenue from sale of products/services.

Significant judgement is required in segregating the capacity charges due from the State Grid, between fixed and contingent payments. The Group has determined that since the capacity charges under the PPA are based on the number of units of electricity made available by its subsidiary which would be subject to variation on account of various factors like availability of coal and water for the plant, there are no fixed minimum payments under the PPA, which requires it to be accounted for on a straight-line basis. The contingent rents recognised are disclosed in notes 4 and 5.

### *(ii) Contingencies and other litigations*

In the normal course of business, contingent liabilities may arise from litigation, taxation and other claims against the Group. A provision is recognised when the Group has a present obligation as a result of past events, and it is probable that the Group will be required to settle that obligation.

Where it is management's assessment that the outcome cannot be reliably quantified or is uncertain the claims are disclosed as contingent liabilities unless the likelihood of an adverse outcome is remote. Such liabilities are disclosed in the notes but are not provided for in the financial statements.

When considering the classification of a legal or tax cases as probable, possible or remote there is judgement involved. This pertains to the application of the legislation, which in certain cases is based upon management's interpretation of country specific applicable law, in particular India, and the likelihood of settlement. Management uses in-house and external legal professionals to make informed decision.

Although there can be no assurance regarding the final outcome of the legal proceedings, the Group does not expect them to have a materially adverse impact on the Group's financial position or profitability.

### *(iii) Revenue recognition and receivable recovery in relation to the power division*

In certain cases, the Group's power customers are disputing various contractual provisions of Power Purchase Agreements (PPA). Significant judgement is required in both assessing the tariff to be

charged under the PPA in accordance with IFRS 15 and to assess the recoverability of withheld revenue currently accounted for as receivables.

In assessing this critical judgment management considered favourable external legal opinions the Group has obtained in relation to the claims and favourable court judgements in the related matter. In addition, the fact that the contracts are with government owned companies implies the credit risk is low.

### **3. Business Combination and others**

#### **a) Discontinued operations - Copper Zambia (KCM):**

In 2019, ZCCM Investments Holdings Plc (ZCCM), a company majority owned by the Government of the Republic of Zambia (GRZ), which owns 20.6% of the shares in Konkola Copper Mines Plc (KCM), filed a petition in the High Court of Zambia to wind up KCM ('the Petition') on "just and equitable" grounds. Subsequently, ZCCM amended the Petition to include an additional ground based on allegations that KCM is unable to pay its debts. ZCCM also obtained an ex parte order from the High Court of Zambia appointing a Provisional Liquidator ('PL') of KCM pending the hearing of the Petition. As a result of the appointment of the PL following ZCCM's ex parte application, the PL is the designated authority for exercising almost all the functions of the Board of Directors, to the exclusion of the Board.

The Group not only disputes the allegations and opposes the Petition, but also maintains that the complaints brought by ZCCM are in effect "disputes" between the shareholders. Per the KCM Shareholders' Agreement, the parties (including ZCCM and the Government of the Republic of Zambia) have agreed that any disputes must be resolved through international arbitration seated in Johannesburg, South Africa, applying the UNCITRAL Arbitration Rules; not the Zambian courts.

#### **Arbitration Application**

Following the filing of the Petition, Vedanta Resources Holdings Limited (VRHL) and Vedanta Resources Limited (VRL or Company) commenced the dispute resolution procedures prescribed by the KCM Shareholders' Agreement, and have initiated arbitration consistent with their position that ZCCM is in breach of the KCM Shareholders' Agreement by reason of its actions in seeking to wind up KCM before the Zambian High Court and applying for the appointment of the PL, as opposed to pursuing its alleged grievances through arbitration under the KCM Shareholders' Agreement. As part of the dispute resolution process under the KCM Shareholders' Agreement, VRHL obtained injunctive relief from the High Court of South Africa requiring ZCCM to withdraw the Petition such that the PL is discharged from office and declaring ZCCM to be in breach of the arbitration clause in the KCM Shareholders' Agreement. ZCCM was further prohibited by the High Court of South Africa from taking any further steps to wind up KCM until the conclusion of the arbitration.

The arbitration proceedings against ZCCM continue and a sole arbitrator was appointed. The procedural timetable for the arbitration envisaged an initial hearing of prioritized issues commencing on 31 May 2021, with the substantive dispute to be heard during a 5-week hearing in February and March 2022. ZCCM filed and served its Defence and Counterclaim on VRL and VRHL on 14 July 2020. VRHL and VRL filed their reply and defence to ZCCM's defence and counterclaims on 31 January 2021, and ZCCM filed its reply to VRHL and VRL's defence to ZCCM's counterclaims on 15 April 2021. Arbitration awards are enforceable in Zambia under the New York Convention.

The arbitrator's ruling on the prioritized issues was delivered on 07 July 2021 which concluded that ZCCM breached the KCM Shareholders' Agreement and are in continuing breach thereof; that the Board of KCM was legally responsible for the management and operation of KCM, not Vedanta; that ZCCM is not able to pursue a claim in damages in respect of the majority of its counterclaims as KCM is the proper Plaintiff, not ZCCM.

### **Proceedings in the Zambian Courts**

VRHL has also made a number of applications before the Zambian High Court in connection with the Petition, including an application for a stay of the Petition, pending the determination of the arbitration. Although, this application was dismissed at first instance by the High Court, VRHL was granted leave to appeal to the Zambian Court of Appeal.

An Order given by the Zambian High Court staying certain of the PL's powers (i.e., those relating to the PL's ability to sell assets and make compromises with creditors) was set aside until the Petition returns to the High Court, subject to the outcome of the appeals to the Zambian Court of Appeal. The PL has given evidence in the Zambian High Court that he would not be able to sell assets (beyond that which is necessary to carry on KCM's ordinary business) without seeking the Court's approval. Notwithstanding this, on 10 September 2019, the PL caused KCM to enter into a consent order disposing of certain surface rights owned by KCM. On 28 November 2019, VRHL and KCM (acting through the lawyers appointed by the directors of KCM) obtained an ex-parte injunction restraining the PL from taking action to implement the consent order, halting the sale of surface rights and preventing any sale of the land itself. A challenge to the ex-parte injunction has been heard and the ruling has been reserved.

In connection with the response to the Petition, VRL has provided to the Board of KCM a commitment to provide certain financial support to KCM. This commitment is subject to certain conditions, including the dismissal of the Petition and discharge of the PL. Additionally since the conditions to the funding support were not satisfied by 30 September 2019, VRL has reserved the right to withdraw the offer set out in the letter.

The appeal hearing took place on 25 August 2020, and the ruling of the Appeal Court was delivered on 20 November 2020. The Appeal Court ruled in favour of the Group and concluded that a dispute as defined in the SHA exists between the parties, and that the disputes are arbitrable and referable to arbitration. The Appeal Court ordered a stay of the winding up proceedings pursuant to section 10 of the Zambian Arbitration Act, 2000 and that the matter be referred to arbitration. Costs were awarded in the Group's favour in both Courts in Zambia.

Although the Petition is currently stayed, the PL has insisted that he remains in his post with his full powers. The PL has argued that the Court of Appeal has not ordered him to vacate his seat. The Group's application for an Embodiment Order of the Appeal Court ruling was argued before the Judge President of the Court of Appeal on 08 December 2020 and the Judge reserved her ruling. The Group and the Respondents (ZCCM and KCM) have a different opinion as to whether the Appeal Court ruling of 20 November 2020 has the result of the PL having to vacate his seat. The form in which the Embodiment Order is issued by the Judge President will determine the impact of the Court of Appeal ruling on the PL's position. The Judge ultimately adopted the Embodiment Order in the form preferred by ZCCM, with the result that the PL has not had to vacate his seat. Vedanta's Zambian counsel have applied for a hearing of the full court of appeal to reconsider the embodiment order. (The order was made by a single judge of the court of appeal rather than the full court.) On 5 May 2021 the Court of Appeal heard preliminary objections against Vedanta's application and have adjourned the motion to a date after it rules on the objections raised. On 26 August 2021, the Court of Appeal dismissed the preliminary objections raised by KCM and ZCCM with costs. The Court further gave an indication that

the substantive motion challenging the ruling may be listed for hearing in due course, subject to confirmation by the Master of the Court of Appeal. On 06 October 2021, KCM filed a summons for an order to stay the Embodiment Order proceedings pending the determination of ZCCM's appeal against the Court of Appeal ruling of 20 November 2020 to the Supreme Court. Vedanta's opposition affidavit and skeleton arguments in respect of KCM's stay application was filed on 01 November 2021. KCM's stay application was heard on 01 December 2021 and on 17 January 2022 wherein the Court of Appeal dismissed KCM's application with costs in Vedanta's favour. A hearing date for the Embodiment Order application was allocated for 02 March 2022, but due to the suspension of legal and arbitration proceedings agreed to between Vedanta and ZCCM, the hearing date was postponed. A new hearing date of 01 June 2022 was allocated by the Court of Appeal for the Embodiment Order application and the preliminary objections. The hearing took place on 1 June, and judgement has been reserved.

ZCCM had sought leave to appeal to the Supreme Court of South Africa. Leave to appeal was denied on 29 April 2021. ZCCM has renewed its application for leave to appeal before a single judge of the Supreme Court. ZCCM's application for leave to appeal before a single judge of the Supreme Court was granted on 2 September 2021. A motion was filed by the Group on 16 September 2021 to the full bench of the Supreme Court, Zambia, to reverse, vary or set aside the Ruling of the single Judge. Vedanta has also raised Preliminary Objections to the ZCCM appeal to the Supreme Court, namely that the Court has no jurisdiction to hear the appeal based on the Partial Final Award which the arbitrator delivered on 7 July 2021.

On 01 February 2022, Vedanta and KCM's preliminary objections were heard by a panel of three Supreme Court judges. On 22 March 2022, the Supreme Court delivered its ruling in Vedanta's favour dismissing ZCCM's appeal mainly on the basis of the Partial Final Award that had been registered in the High Court of Zambia. The Supreme Court held that the issues raised by ZCCM in the winding up petition are arbitrable issues, as determined by the Partial Final Arbitral Award of 07 July 2021, which is binding on the parties.

On 16 February 2022, VRL, VRHL and ZCCM signed an agreement to postpone the arbitration hearing in order to afford the parties an opportunity to negotiate a commercial settlement between them of the disputes that form the subject matter of the arbitration. The Tribunal has been notified of this agreement and has confirmed its availability to reconvene the hearing in January 2023.

On 07 September 2022, VRL, VRHL, ZCCM and the Official Receiver (who is currently acting as KCM's PL) entered into a further legal and arbitration proceedings suspension agreement for an initial period of 6 months. The arbitration hearing which was to commence on 09 January 2023 has been vacated.

On 14 February 2023, VRL, VRHL, ZCCM, the Official Receiver and KCM entered into an Extension and Amendment to the Legal Suspension Agreement, whereby the Parties agreed to an Additional Postponement Period in respect of the suspension of legal proceedings up until 31 March 2023. The Legal Suspension Agreement has been subsequently extended and is presently effective.

The Company also applied seeking directions on the PL's powers after the Court of Appeal ruling of 20 November 2020, arguing that the Court of Appeal judgment did not in any way stay the supervisory jurisdiction of the High Court over the PL as an officer of the Court, and that the Preliminary Issues Applications should be dismissed. The Judge gave a ruling on 07 May 2021, finding that in light of the stay of the winding up proceedings ordered by the Court of Appeal and the referral of the matter to arbitration, she does not have the jurisdiction to consider an application requesting her to give directions on the powers of the PL. Leave to appeal was denied.

The PL resigned on 17 March 2022. The Official Receiver announced that she would act as PL in place of the outgoing PL, post his resignation. The Company has instituted a fresh judicial review application in the High Court of Zambia for the interpretation of Section 65 of the Corporate Insolvency Act as to whether a vacancy in the office of the Provisional Liquidator can automatically be filled by the Official Receiver without the requisite Court Order. A court date for the hearing of the judicial review application has not yet been allocated. In light of the further legal and arbitration proceedings suspension agreement that was entered into on 07 September 2022, the judicial review application with regards to the Official Receiver will only resume if settlement talks between the parties fail.

KCM has recently instituted legal proceedings against the PL and his legal firm in the High Court of Zambia in which KCM aims to recover monies improperly drawn by the PL from KCM's accounts and damages for the PL's breach of fiduciary and statutory duties vis-à-vis KCM.

At the date of approval of these financial statements, the PL remains in office and the Petition remains stayed.

### **Notice of Deemed Transfer of Shares**

On 14 July 2020, ZCCM served a notice entitled "Notice of Deemed Transfer of Shares" on VRL and VRHL (Notice). The Notice is stated to be given under clause 10.1.2 of the KCM Shareholders' Agreement, notifying VRL and VRHL of various alleged breaches of the KCM Shareholders' Agreement having a Material Adverse Effect (as defined in the KCM Shareholders' Agreement) or other material breaches of the SHA, and requiring VRL and VRHL to remedy the notified breaches within 30 days, and reserving its rights in the event VRHL does not or cannot remedy the breaches within that time period to treat the event as deemed service by VRHL of an irrevocable offer under clause 10.2 to sell its shares in KCM to ZCCM at 'Fair Value'. Fair Value is to be determined in accordance with a mechanism set out in the KCM Shareholders' Agreement. If ZCCM thereafter notifies VRHL that it wishes to exercise these rights, VRHL will be deemed to have served an exit notice under clause 9.6 of the Shareholders' Agreement, giving rise to the application of a number of the exit provisions under the Shareholders' Agreement, including the requirement to make payment of budgeted capex for the succeeding 12 month period and any capital expenditure underspend in previous financial years on a cumulative basis, as determined by KCM's auditors.

VRL and VRHL intend to challenge the Notice in accordance with the provisions of the Shareholders' Agreement and note that the effectiveness and validity of the Notice is to be determined by the arbitrator as part of the arbitration proceedings referred to above before any further steps can be taken by ZCCM to acquire VRHL's shares in KCM pursuant to the mechanism in clause 10 of the KCM Shareholders' Agreement.

### **Accounting Considerations**

As all the significant decision-making powers, including carrying on the business of KCM and taking control over all the assets of KCM, rests with the PL, the Group believes that the appointment of PL has caused loss of its control over KCM. Accordingly, the Group deconsolidated KCM with effect from 21 May 2019 and presented the same in the consolidated income statement as a discontinued operation.

The Group continues to account for its investment in KCM and loans, receivables and obligations of KCM towards the Group at cost, subject to impairment.

The loss with respect to KCM operations along with the loss on fair valuation of the Group's interest in KCM has been presented as a special item in the in previous years consolidated income statement.

The Group has total exposure of US\$ 1,887 million (31 March 2022: US\$ 1,887 million) (including equity investment in KCM of US\$ 266 million) to KCM in the form of loans, receivables, investments

and amounts relating to the guarantees issued by VRL, which have been accounted for at fair value on initial recognition and disclosed under non-current assets in the Consolidated Statement of Financial Position.

### **Key sources of estimation uncertainty**

The investment in KCM and loans, receivables and obligations of KCM towards the Group recognised following deconsolidation of the subsidiary are initially recognized at fair value on the date of loss of control. Subsequently, the equity investment in KCM is measured at fair value through profit or loss and the loans, receivables and obligations of KCM towards the Group are measured at amortised cost, subject to impairment.

The Group employed third-party experts (“Expert”) to undertake valuations of the investment in KCM and loans, receivables and obligations of KCM towards the Group. The income approach method was applied for the purposes of the valuation. In this approach, the discounted cash flow method was used to capture the present value of the expected future economic benefits to be derived from the ownership of these assets. The resulting valuation is adjusted to reflect a number of factors, including the uncertainty and risks inherent in litigation and recovery. The third-party valuation provides a range of reasonable fair values, based on which management calculated the fair value to be recognised in the financial statements as the mid-point of the range. During the year ended 31 March 2023, basis fair valuation, no further impairment was identified to the existing balances. Therefore, carrying value as at 31 March 2023 remain unchanged at US\$ 682 million (31 March 2022: US\$ 682 million).

Cash flow projections are based on financial budgets and life of mine plans on a going concern basis and are sensitive to changes in input assumptions. Input assumptions into the valuation that involve management judgement include:

- The expectation that the large-scale mining licence expiring in 2025 will be extended to the end of the life of mine under the Mines & Mineral Development Act on payment of requisite fees and submission of the proposed programme of mining operation for the period of renewal. We believe this licence renewal process is in line with globally accepted procedural requirement to be followed by a mining company backed by a robust life of mine plan and as such, would get extended for the next permissible period post fulfilment of procedural requirement in ordinary course of business.
- Expected delay between success of the litigation proceedings and receipt of any amounts due.
- Liquidity of the market in the event of a sale of KCM, which has been considered through benchmarking the resulting valuation against other recent transactions for similar mines.
- The discount rate used to discount the cash flow projection, which has been calculated on a post-tax basis at 13% (31 March 2022: 11.875%), using the input of third-party expert.
- To factor in the uncertainties, valuation under few scenarios in addition to the base case valuation, assuming equal likelihood, has been computed a) If Provisional Liquidator continues to control the assets for longer than expected, b) additional capex required to achieve the planned ramp up of production and c) future implied Zambian country risk premium.

The key sources of estimation uncertainty, to which the valuation is most sensitive, are:

- The long-term copper prices which are based on the median of analyst forecasts.
- Throughput at the Konkola concentrator: The timing of ramp up of through put at the Konkola concentrator is based on internal management forecasts. The forecasts incorporate management experience and expectations as well as the risks associated therewith (for example availability of required fleets, skill sets for level developments at critical areas).

- The probability of achieving an award or positive settlement outcome in respect of the litigation proceedings. As discussed above, the Group believes, based on the legal advice it has obtained, that it is probable that it will succeed with its appeal to the Zambian Court of Appeal, which would result in the Petition being stayed until the outcome of the arbitration and the Group believes at some stage the Petition will be dismissed and the appointment of the PL discharged. The probability used in the valuation is based on the Expert's assumption based on external legal advice that it is probable that the Group will succeed with its appeal to the Zambian Court of Appeal and benchmarked using external data on historical outcomes for similar claims.
- The potential proportion of the claim value that may be expected to be recovered in the event of achieving an award or positive settlement outcome. This includes the ability of ZCCM to make payments in the event of a successful award or settlement outcome.

Where discounted cash flow models based on management's assumptions are used, the resulting fair value measurements are considered to be at level 3 in the fair value hierarchy, as defined in IFRS 13 Fair Value Measurement, as they depend to a significant extent on unobservable valuation inputs.

**ii. Fair value measurements**

The valuation of the investment in KCM and the loans, receivables and obligations of KCM towards the group is determined using discounted future cash flows and adjusted to reflect expert's current views on litigation risk and other unobservable inputs as described below. These assets are considered to be level 3 in the fair value hierarchy. Quantitative information about the significant unobservable inputs used in level 3 fair value measurements are set out in the table below:

*(US\$ million, unless stated otherwise)*

Financial asset	Fair value at		Significant unobservable Inputs	Relationship of unobservable inputs to fair value
	31 March 2023	31 March 2022		
Investments and Loans, receivables and obligations of KCM towards the Group	751	720	Probability of achieving an award or positive settlement outcome in respect of litigation proceedings	A decrease in probability of success would decrease the fair value. A 10% decrease in the probability of success, with no change to any other inputs, would decrease the fair value by US\$ 96 million (31 March 2022: US\$ 92 million). We have used a 10% assumption to calculate our exposure as it represents a change in the probability of success that we deem to be reasonably probable.
			Potential proportion of the claim value that may expected to be recovered in the event of achieving an award or positive settlement outcome	A decrease in the recovery percentage would decrease the fair value. A 10% decrease in the recovery percentage, with no change to any other inputs, would decrease the fair value by US\$ 156 million (31 March 2022: US\$ 149 million) We have used a 10% assumption to calculate our exposure as it represents a change in the recovery probability that we deem to be reasonably probable.
			Copper price Long term price of US\$ 7,949/ tonne (31 March 2023) and US\$ 7,716/ tonne (31 March 2022)	A decrease in the copper price would decrease the fair value. A 10% reduction in the long-term copper price, with no change to any other inputs, would decrease the fair value by US\$ 113 million (31 March 2022: US\$ 128 million). We have used a 10% assumption to calculate our exposure as it represents the annual copper price movement that we deem to be reasonably probable (on an annual basis over the long run).



### **(b) Athena Chhattisgarh Power Limited**

On 21 July 2022, the Group acquired Athena Chhattisgarh Power Limited ("ACPL"), an unrelated party, under the liquidation proceedings of the Insolvency and Bankruptcy Code, 2016 for a consideration of INR 5,647 million (US\$ 72 million), subject to National Company Law Tribunal ("NCLT") approval. ACPL is building a 1,200 MW (600 MW X 2) coal-based power plant located at Jhanjgir Champa district, Chhattisgarh. The plant is expected to fulfil the power requirements for the Group's aluminium business. VEDL had filed its application with the NCLT in July 2022 and further amended the application in November 2022 praying for merger of ACPL with itself. The Group has requested various reliefs from the applicable legal and regulatory provisions as part of the above applications. The NCLT approval of the Group's resolution application is pending as on balance sheet date. On consolidation, the consideration paid for acquisition of ACPL represents mainly Capital work-in-progress.

### **(c) Amalgamation of Facor Power Limited into Ferro Alloys Corporation Limited**

During the current year ended 31 March 2023, Hon'ble National Company Law Tribunal, Cuttack Bench vide its Order dated 15 November 2022 approved the Scheme of Amalgamation of Facor Power Limited ("FPL") into Ferro Alloys Corporation Limited ("FACOR"). FPL was a subsidiary of FACOR which in turn is a subsidiary of VEDL. Post the amalgamation becoming effective on 21 November 2022, VEDL directly holds 99.99% in FACOR. There is no material impact on the consolidated financial statements of the Group due to this amalgamation.

## **4. Segment information**

The Group is a diversified natural resources Group engaged in exploring, extracting and processing minerals and oil and gas. The Group produces zinc, lead, silver, copper, aluminium, iron ore, oil and gas, ferro alloys, steel, cement and commercial power and has a presence across India, Zambia, South Africa, Namibia, UAE, Ireland, Australia, Japan, South Korea, Taiwan and Liberia. The Group is also in the business of port operations and manufacturing of glass substrate.

The Group's reportable segments defined in accordance with IFRS 8 are as follows:

Zinc- India (comprises zinc and lead India)

Zinc-International

Oil & Gas

Iron Ore

Copper-India/Australia

Aluminium

Power

'Others' segment mainly comprises port/berth, steel, glass substrate, ferro alloys and cement business and those segments which do not meet the quantitative threshold for separate reporting.

Each of the reportable segments derives its revenues from these main products and hence these have been identified as reportable segments by the Group's chief operating decision maker ("CODM").

Management monitors the operating results of reportable segments for the purpose of making decisions about resources to be allocated and for assessing performance. Segment performance is

evaluated based on the Earnings Before Interest, Taxes, Depreciation, and Amortization (“EBITDA”) of each segment. Business segment financial data includes certain corporate costs, which have been allocated on an appropriate basis. Inter-segment sales are charged based on prevailing market prices.

The following tables present revenue and profit information and certain asset and liability information regarding the Group’s reportable segments for the years ended 31 March 2023 and 31 March 2022. Items after operating profit are not allocated by segment.

**(a) Reportable segments**

**Year ended 31 March 2023**

	(US\$ million)									
	Zinc-India	Zinc- International	Oil and gas	Iron Ore	Copper-India/ Australia	Aluminium	Power	Others	Elimination	Total operations
<b>REVENUE</b>										
Sales to external customers	4,126	649	1,873	753	2,179	6,550	870	1,141	-	18,141
Inter-segment sales	-	-	-	56	-	6	27	11	(100)	-
<b>Segment revenue</b>	<b>4,126</b>	<b>649</b>	<b>1,873</b>	<b>809</b>	<b>2,179</b>	<b>6,556</b>	<b>897</b>	<b>1,152</b>	<b>(100)</b>	<b>18,141</b>
Results										
Segment Results (EBITDA) <sup>(1)</sup>	2,177	241	972	124	(7)	707	106	288	-	4,608
Less: Depreciation and amortisation <sup>(2)</sup>	389	61	442	33	18	281	72	86	-	1,382
Other Expenses *	-	-	30	-	-	-	-	-	-	30
<b>Operating profit / (loss) before special items</b>	<b>1,788</b>	<b>180</b>	<b>500</b>	<b>91</b>	<b>(25)</b>	<b>426</b>	<b>34</b>	<b>202</b>	<b>-</b>	<b>3,196</b>
Investment revenue										251
Finance costs										(1,558)
Other gains and (losses) [net]										(79)
Special items (Refer Note 6)										(178)
<b>Profit before taxation</b>										<b>1,632</b>
Segments assets	2,617	833	2,896	679	610	6,935	1,887	1,323	-	17,780
Financial asset investments										63
Deferred tax assets										1,268
Short-term investments										1,728
Cash and cash equivalents										1,037
Tax assets										373
Others										1,181
<b>TOTAL ASSETS</b>										<b>23,430</b>
Segment liabilities	625	131	1,809	312	632	2,866	249	445	-	7,069
Borrowings										15,358
Current tax liabilities										191
Deferred tax liabilities										866
Others										818
<b>TOTAL LIABILITIES</b>										<b>24,302</b>
<b>Other segment information</b>										
Additions to property, plant and equipment, exploration and evaluation assets and intangible assets	475	158	433	70	18	708	74	182	-	2,121
Impairment charge/(reversal) <sup>(3)</sup>	-	-	157	(82)	-	-	-	(14)	-	61

\* Exploration costs written off

Year ended 31 March 2022

(US\$ million)

	Zinc- India	Zinc- International	Oil and gas	Iron Ore	Copper- India/ Australia	Aluminium	Power	Others	Elimination	Total operations
<b>REVENUE</b>										
Sales to external customers	3,844	602	1,669	837	2,035	6,823	739	1,070	-	17,619
Inter-segment sales	-	-	-	15	-	10	44	2	(71)	-
<b>Segment revenue</b>	<b>3,844</b>	<b>602</b>	<b>1,669</b>	<b>852</b>	<b>2,035</b>	<b>6,833</b>	<b>783</b>	<b>1,072</b>	<b>(71)</b>	<b>17,619</b>
Results										
Segment Results (EBITDA) <sup>(1)</sup>	2,170	206	809	304	(15)	2,328	145	308	-	6,255
Less: Depreciation and amortisation <sup>(2)</sup>	377	69	307	32	20	270	77	76	-	1,228
<b>Operating profit / (loss) before special items</b>	<b>1,793</b>	<b>137</b>	<b>502</b>	<b>272</b>	<b>(35)</b>	<b>2,058</b>	<b>68</b>	<b>232</b>	<b>-</b>	<b>5,027</b>
Investment revenue										153
Finance costs										(1,402)
Other gains and (losses) [net]										(38)
Special items (Refer Note 6)										408
<b>Profit before taxation</b>										<b>4,148</b>
Segments assets	2,848	924	3,424	608	789	7,133	2,099	1,210	-	19,035
Financial asset investments										20
Deferred tax assets										860
Short-term investments										3,117
Cash and cash equivalents										1,328
Tax assets										368
Others										897
<b>TOTAL ASSETS</b>										<b>25,625</b>
Segment liabilities	664	153	2,118	338	658	2,299	188	352	-	6,770
Borrowings										16,082
Current tax liabilities										122
Deferred tax liabilities										764
Others										352
<b>TOTAL LIABILITIES</b>										<b>24,090</b>
<b>Other segment information</b>										
Additions to property, plant and equipment, exploration and evaluation assets and intangible assets	514	148	220	40	4	482	14	172	-	1,597
Impairment charge/(reversal) <sup>(3)</sup>	-	-	(843)	-	-	-	-	-	-	(843)
Exploration costs written off <sup>(3)</sup>	-	-	351	-	-	-	-	-	-	351

(1) EBITDA is a non-IFRS measure and represents earnings before special items, depreciation, amortisation, other gains and losses, interest and tax.

(2) Depreciation and amortisation are also provided to the chief operating decision maker on a regular basis.

(3) Included under special items (Note 6).

(4) Additions to property, plant and equipment, exploration and evaluation assets and intangible assets includes US\$ 3 million (31 March 2022: US\$ 3 million) not allocated to any segment.

#### 4. Segment information (continued)

##### (b) Geographical segmental analysis

The Group's operations are located in India, Zambia, Namibia, South Africa, UAE, Ireland, Australia, Japan, South Korea, Taiwan and Liberia. The following table provides an analysis of the Group's revenue by region in which the customer is located, irrespective of the origin of the goods.

(US\$ million)

	Revenue by geographical segment	
	Year ended 31 March 2023	Year ended 31 March 2022
India	10,851	9,887
Europe	1,985	2,824
China	661	1,299
The United States of America	481	468
Mexico	579	310
Others	3,584	2,831
<b>Total</b>	<b>18,141</b>	<b>17,619</b>

The following is an analysis of the carrying amount of non-current assets, excluding deferred tax assets, derivative financial assets, financial asset investments and other non-current financial assets analysed by the geographical area in which the assets are located:

(US\$ million)

	Carrying amount of non-current assets	
	As at 31 March 2023	As at 31 March 2022
India	12,575	13,435
South Africa	647	675
Taiwan	127	118
Namibia	108	131
Others	264	59
<b>Total</b>	<b>13,721</b>	<b>14,418</b>

##### Information about major customer

No single customer has accounted for 10% or more of the Group's revenue for the year ended 31 March 2023 and 31 March 2022.

### Disaggregation of revenue

Below table summarises the disaggregated revenue from contracts with customers:

Particulars	(US\$ million)	
	Year ended 31 March 2023	Year ended 31 March 2022
Zinc Metal	3,613	3,318
Lead Metal	601	569
Silver Bars	570	566
Oil	1,551	1,380
Gas	350	230
Iron Ore	290	316
Pig Iron	506	554
Metallurgical Coke	58	55
Copper Products	2,127	1,918
Aluminium Products	6,550	6,883
Power	659	522
Steel Products	781	765
Ferro Alloys	96	111
Others	461	420
<b>Revenue from contracts with customers*</b>	<b>18,213</b>	<b>17,607</b>
Revenue from contingent rents	192	185
Losses on provisionally priced contracts under IFRS 9 (refer note 5)	(264)	(173)
<b>Total Revenue</b>	<b>18,141</b>	<b>17,619</b>

\*Includes revenues from sale of services aggregating to US\$ 41 million (31 March 2022: US\$ 40 million) which is recorded over a period of time and the balance revenue is recognised at a point in time.

### 5. Total Revenue

	(US\$ million)	
	Year ended 31 March 2023	Year ended 31 March 2022
Sale of products <sup>a</sup>	17,908	17,394
Sale of services <sup>a</sup>	41	40
Revenue from contingent rents	192	185
<b>Total Revenue</b>	<b>18,141</b>	<b>17,619</b>

a) Revenue from sale of products and from sale of services for the year ended 31 March 2023 includes revenue from contracts with customers of US\$ 18,213 million (31 March 2022: US\$ 17,607 million) and a net loss on mark-to-market of US\$ 264 million (31 March 2022: US\$ 173 million) on account of gains/ losses relating to sales that were provisionally priced as at 31 March 2022 with the final price settled in the current year, gains/ losses relating to sales fully priced during the year, and marked to market gains/ losses relating to sales that were provisionally priced as at 31 March 2023.

b) Majority of the Group's sales are against advance or are against letters of credit/ cash against documents/ guarantees of banks of national standing. Where sales are made on credit, the amount of consideration does not contain any significant financing component as payment terms are within three months.

As per the terms of the contract with its customers, either all performance obligations are to be completed within one year from the date of such contracts or the Group has a right to receive consideration from its customers for all completed performance obligations. Accordingly, the Group has availed the practical expedient available under paragraph 121 of IFRS 15 and dispensed with the additional disclosures with respect to performance obligations that remained unsatisfied (or partially unsatisfied) at the balance sheet date. Further, since the terms of the contracts directly identify the transaction price for each of the completed

performance obligations, in all material respects, there are no elements of transaction price which have not been included in the revenue recognised in the financial statements. Further, there is no material difference between the contract price and the revenue from contract with customers.

## 6. Special items

(US\$ million)

	Year ended 31 March 2023			Year ended 31 March 2022		
	Special items	Tax effect of Special items	Special items after tax	Special items	Tax effect of Special items	Special items after tax
SAED on Oil and Gas business <sup>1</sup>	(117)	44	(73)	-	-	-
One time settlement of entry tax under amnesty scheme <sup>4</sup>	-	-	-	(18)	6	(12)
Provision for fly ash disposal <sup>5</sup>	-	-	-	(38)	11	(27)
Provision for settlement of dispute regarding environmental clearance <sup>6</sup>	-	-	-	(1)	0	(1)
<b>Gross profit special items (a)</b>	<b>(117)</b>	<b>44</b>	<b>(73)</b>	<b>(57)</b>	<b>17</b>	<b>(40)</b>
Impairment (charge)/ reversal in oil and gas properties <sup>2</sup>	(82)	32	(50)	714	(282)	432
Impairment (charge)/ reversal of exploration & evaluation assets <sup>2</sup>	(75)	29	(46)	129	(51)	78
Impairment reversal of asset under construction	14	(5)	9	-	-	-
Reversal of previously recorded impairment of assets in Liberia on commencement of mining operations <sup>3</sup>	82	-	82	-	-	-
<b>Total impairment (charge)/ reversal (net) (b)</b>	<b>(61)</b>	<b>56</b>	<b>(5)</b>	<b>843</b>	<b>(333)</b>	<b>510</b>
Write off of Asset under construction, land & capital advances (c) <sup>8,9,10</sup>	-	-	-	(27)	8	(19)
Exploration costs written off <sup>7</sup> (d)	-	-	-	(351)	138	(213)
<b>Operating special items (a+b+c+d)</b>	<b>(178)</b>	<b>100</b>	<b>(78)</b>	<b>408</b>	<b>(170)</b>	<b>238</b>
<b>Total of Special items</b>	<b>(178)</b>	<b>100</b>	<b>(78)</b>	<b>408</b>	<b>(170)</b>	<b>238</b>

- The Government of India ("GoI") vide its notification dated 30 June 2022 levied Special Additional Excise Duty ("SAED") on production of crude oil, i.e., cess on windfall gain triggered by increase in crude oil prices which is effective from 01 July 2022. The consequential net impact of the said duty is US\$ 117 million (Revenue US\$ 142 million and Cost of sales US\$ 259 million) for the year ended 31 March 2023.
- (a) (i) During the year ended 31 March 2023, the Group has recognized net impairment charge of US\$ 82 million (after considering impairment reversal of US\$ 155 million on account of ONGC partial arbitration award Refer footnote (ii) for details) on its assets in the oil and gas properties and US\$ 75 million on exploration and evaluation assets mainly due to revision of reserves and capex estimates. The recoverable amount of the Group's share in Rajasthan Oil and Gas cash generating unit "RJ CGU" was determined to be US\$ 1,239 million as at 31 March 2023. The recoverable amount of the RJ CGU was determined based on the fair value less costs of disposal approach, a level-3 valuation technique in the fair value hierarchy, as it more accurately reflects the recoverable amount based on the Group's view of the assumptions that would be used by a market participant. This is based on the cash flows expected to be generated by the projected oil and natural gas production profiles up to 2040, the expected dates of cessation of production sharing contract (PSC)/cessation of production from each producing field based on the



current estimates of reserves and risked resources. Reserves assumptions for fair value less costs of disposal tests consider all reserves that a market participant would consider when valuing the asset, which are usually broader in scope than the reserves used in a value-in-use test. Discounted cash flow analysis used to calculate fair value less costs of disposal uses assumption for short-term oil price of US\$ 84 per barrel for the next one year and tapers down to long-term nominal price of US \$ 73 per barrel three years thereafter derived from a consensus of various analyst recommendations. Thereafter, these have been escalated at a rate of 2.4% per annum. The cash flows are discounted using the post-tax nominal discount rate of 10.99% derived from the post-tax weighted average cost of capital after factoring in the risks ascribed to PSC extension including successful implementation of key growth projects. Based on the sensitivities carried out by the Group, change in crude price assumptions by US\$ 1/bbl and changes to discount rate by 1% would lead to a change in recoverable value US\$ 9 million and US\$ 46 million, respectively.

(ii) In the Oil and Gas business, the Group operates the Rajasthan Block under a joint venture model with ONGC. As the operator of the block, the Group raises cash calls to ensure the smooth functioning of the petroleum operations.

During the current year ended 31 March 2023, the Group received a favourable partial arbitration award on cash call claims made from ONGC, pursuant to which, reversal of previously recorded impairment of US\$ 155 million has been recognised against capitalised development costs. The Group had a liability towards ONGC of US\$ 199 million as of 31 March 2022 on account of revenue received in excess of entitlement. Based on the partial arbitration award, the Group has adjusted the claims received in the favour of the Group against the liability towards ONGC and the net payable as of 31 March 2023 amounts to US\$ 34 million.

(b) During the year ended 31 March 2022, the Group has recognized an impairment reversal of US\$ 843 Million on its assets in the oil and gas segment comprising:

i) Impairment reversal of US\$ 827 million relating to Rajasthan oil and gas block ("CGU") mainly due to increase in crude price forecast. Of this, US\$ 700 million impairment reversal has been recorded against oil and gas producing facilities and US\$ 127 million impairment reversal has been recorded against exploration intangible assets under development.

The recoverable amount of the Group's share in Rajasthan Oil and Gas cash generating unit "RJ CGU" was determined to be US\$ 1,361 million as at 31 March 2022.

The recoverable amount of the RJ CGU was determined based on the fair value less costs of disposal approach, a level-3 valuation technique in the fair value hierarchy, as it more accurately reflects the recoverable amount based on the Group's view of the assumptions that would be used by a market participant. This is based on the cash flows expected to be generated by the projected oil and natural gas production profiles up to the expected dates of cessation of production sharing contract (PSC)/cessation of production from each producing field based on the current estimates of reserves and risked resources. Reserves assumptions for fair value less costs of disposal tests consider all reserves that a market participant would consider when valuing the asset, which are usually broader in scope than the reserves used in a value-in-use test. Discounted cash flow analysis used to calculate fair value less costs of disposal uses assumption for short-term oil price of US\$ 86 per barrel for the next one year and tapers down to long-term nominal price of US\$ 68 per barrel three years thereafter derived from a consensus of various analyst recommendations. Thereafter, these have been escalated at a rate of 2% per annum. The cash flows are discounted using the post-tax nominal discount rate of 10% derived from the post-tax weighted average cost of capital after factoring in the risks ascribed to PSC extension including successful implementation of key growth projects. Based on the sensitivities carried out by the Group, change in crude price assumptions by US\$ 1/bbl and changes to discount rate by 1% would lead to a change in recoverable value by US\$ 27 million and US\$ 42 million respectively.

ii) Impairment reversal of US\$ 16 million relating to KG-ONN-2003/1 CGU mainly due to increase in crude price forecast and increase in recoverable reserves.

The recoverable amount of the Group's share in this CGU was determined to be US\$ 27 million based on fair value less cost of disposal approach as described in above paragraph. Discounted cash flow analysis used to calculate fair value less costs of disposal uses assumption for short-term oil price of US\$ 86 per barrel for the next one year and tapers down to long-term nominal price of US\$ 68 per barrel three years thereafter derived from a consensus of various analyst recommendations. Thereafter, these have been escalated at a rate of 2% per annum. The cash flows are discounted using the post-tax nominal discount rate of 10.63%. The sensitivities around change in crude price and discount rate are not material to the financial statements.

3. During the year ended 31 March 2023, WCL has signed a Memorandum of Understanding with the Government of Liberia to re-start its mining operations and commenced commercial production at its Bomi Mines from July 2022.

Consequently, the net recoverable value of assets and liabilities of WCL has been assessed at US\$ 108 million based on the value-in-use approach, using the Discounted Cash Flow Method, a level 3 valuation technique in the fair value hierarchy as it more accurately reflects the recoverable amount. The impairment assessment is based on a range of estimates and assumptions, including long-term selling price as per the consensus report, volumes based on the mine planning and concentrate plant setup and a post-tax nominal discount rate of 14.45%. Any subsequent changes to cash flows due to changes in the above-mentioned factors could impact the carrying value of the assets.

Based on the sensitivities carried out by the Group, a decrease in the long-term selling price by 1% would lead to a decrease in the recoverable value by US\$ 6 million and an increase in the discount rate by 1% would lead to a decrease in the recoverable value by US\$ 9 million.

Accordingly, the impairment recorded in previous periods has been reversed, to an extent of US\$ 82 million pertaining only to the assets of the Bomi Mine.

4. During the year ended 31 March 2022, HZL has recognised an expense of US\$ 18 million relating to amount charged in respect of settlement of entry tax dispute under an Amnesty scheme launched by the Government of Rajasthan.
5. During the year ended 31 March 2022, the MoEFCC notified guidelines for thermal power plants for disposal of fly ash and bottom ash) produced during power generation process. Effective 01 April 2022, the notification introduced a three-year cycle to achieve average ash utilisation of 100 per cent. The first three-year cycle is extendable by another one year or two years where ash utilisation percentage is in the range of 60-80 per cent or less than 60 per cent, respectively. Further, unutilised accumulated ash, i.e., legacy fly ash stored with such power plants prior to the date of this notification is required to be utilized fully over a ten-year period with minimum twenty percent, thirty percent and fifty percent utilisation in year 1, year 2 and years 3-10 respectively. Such provisions are not applicable where ash pond or dyke has stabilised, and the reclamation has taken place with greenbelt or plantation. The Group has performed detailed evaluations for its obligations under this notification and has recorded US\$ 38 Million as a special item for the year ended 31 March 2022, towards estimated costs of legacy fly ash utilization including reclamation costs.
6. Refer Note 2(c)(I)(iv).
7. During the year ended 31 March 2022, based on the outcome of exploration and appraisal activities in its PSC block RJON-90/1 block and RSC blocks awarded under OALP (Open Acreage Licensing Policy), an amount of US\$ 351 million towards unsuccessful exploration costs has been charged off to the consolidated income statement during the previous year, as these have proven to be either technically or commercially unviable.
8. a) During the year ended 31 March 2022, the Group has recognised a loss of US\$ 3 million relating to certain items of capital work-in-progress at one of its closed units in Gujarat, which are no longer expected to be used.  
b) During the year ended 31 March 2022, US\$ 1 million was written off being the cost of land located outside the plant for which details of original owners/sellers etc., was not available and the physical possession or the registered ownership of the same as such cannot be obtained.

9. In relation to a mine in Aluminium business of the Group, the Group had deposited US\$ 17 Million with the Government of India. Thereafter, the MoEFCC and the Hon. Supreme Court declared the mining project inoperable on environmental grounds. Later, in 2017, the mining license lapsed. Accordingly, the deposit was fully provided for during the year ended 31 March 2022.
10. During the year ended 31 March 2022, ESL Steel Limited had recognised a provision of US\$ 6 million relating to certain items of capital work-in-progress basis the physical verification.

## 7. Investment revenue

	<i>(US\$ million)</i>	
	Year ended 31 March 2023	Year ended 31 March 2022
Net gain on financial assets held at fair value through profit or loss (FVTPL)	10	28
<b>Interest Income:</b>		
Interest income- financial assets held at FVTPL	63	53
Interest income- financial assets held at FVOCI	35	-
Interest income- bank deposits at amortised cost	48	72
Interest income- loans and receivables at amortised cost	60	29
Interest income- others	21	-
<b>Dividend Income:</b>		
Dividend income- financial assets held at FVOCI	3	0
Foreign exchange gain/ (loss) (net)	11	(29)
<b>Total</b>	<b>251</b>	<b>153</b>

## 8. Finance costs

	<i>(US\$ million)</i>	
	Year ended 31 March 2023	Year ended 31 March 2022
Interest expense – financial liabilities at amortised cost	1,484	1,345
Other finance costs (including bank charges)	119	86
<b>Total interest cost</b>	<b>1,603</b>	<b>1,431</b>
Unwinding of discount on provisions	12	10
Net interest on defined benefit arrangements	3	3
Capitalisation of finance costs/borrowing costs	(60)	(42)
<b>Total</b>	<b>1,558</b>	<b>1,402</b>

All borrowing costs are capitalised using rates based on specific borrowings and general borrowings with the interest rate of 6.75% (7.87% for 31 March 2022) per annum for the year ended 31 March 2023.

## 9. Other gains and (losses), (net)

	<i>(US\$ million)</i>	
	Year ended 31 March 2023	Year ended 31 March 2022
Foreign exchange gain/ (loss) (net)	(88)	(18)
Change in fair value of financial liabilities measured at fair value	0	(1)
Net gain/(loss) arising on qualifying hedges and non-qualifying hedges	9	(19)
<b>Total</b>	<b>(79)</b>	<b>(38)</b>

## 10. Tax

(a) Tax charge/ (credit) recognised in Consolidated Income Statement (including on special items)  
(US\$ million)

	Year ended 31 March 2023	Year ended 31 March 2022
<b>Current tax:</b>		
Current tax	1,151	1,047
Credit in respect of current tax for earlier years	(14)	-
Credit in respect of Special items (refer note 6)	(18)	(78)
<b>Total current tax (a)</b>	<b>1,119</b>	<b>969</b>
<b>Deferred tax:</b>		
Origination of temporary differences	(233)	364
Charge in respect of deferred tax for earlier years	(10)	(11)
Credit in respect of Special items (refer note 6)	(82)	248
<b>Total deferred tax (b)</b>	<b>(325)</b>	<b>601</b>
<b>Total Income tax expense for the year((a)+(b))</b>	<b>794</b>	<b>1,570</b>
<b>Profit before tax from continuing operations</b>	<b>1,632</b>	<b>4,148</b>
<b>Effective Income tax rate (%)</b>	<b>48.7%</b>	<b>37.9%</b>

### Tax expense/ (benefit)

	(US\$ million)	
	Year ended 31 March 2023	Year ended 31 March 2022
Tax effect on special items	(100)	170
Tax expense – others	894	1,400
<b>Net tax expense</b>	<b>794</b>	<b>1,570</b>

(b) A reconciliation of income tax expense/ (credit) applicable to profit/ (loss) before tax at the Indian statutory income tax rate to income tax expense/ (credit) at the Group's effective income tax rate for the year indicated are as follows.

Given majority of the Group's operations are located in India, the reconciliation has been carried out from Indian statutory income tax rate.

	(US\$ million)	
	Year ended 31 March 2023	Year ended 31 March 2022
<b>Profit/ (Loss) before tax from continuing operations</b>	<b>1,632</b>	<b>4,148</b>
Indian statutory income tax rate	34.944%	34.944%
<b>Tax at statutory income tax rate</b>	<b>570</b>	<b>1,450</b>
Non-taxable income	(9)	(18)
Tax holidays and similar exemptions	(67)	(263)
Effect of tax rate differences of subsidiaries operating at other tax rates	19	227
Tax on distributable reserve of/ dividend from subsidiary	149	65
Unrecognized tax assets (Net) <sup>(i)</sup>	(6)	(16)
Change in deferred tax balances due to change in tax law	(22)	(34)
Capital Gains/ Other income subject to lower tax rate <sup>(ii)</sup>	(65)	(4)
Credit in respect of earlier years	(28)	(12)
Other permanent differences	253	175
<b>Total</b>	<b>794</b>	<b>1,570</b>

(i) Current year includes US\$ 22 million of deferred tax assets on brought forward losses of Facor Power Limited recognised post its merger with Facor Alloys Corporation Limited. Based on the financial forecasts of the merged entity, it is probable to realise the deferred tax assets.

(ii) Current year majorly includes US\$ 63 million on account of dividend received from foreign subsidiary taxable at lower rate of 17.472%.

Certain businesses of the Group within India are eligible for specified tax incentives which are included in the table above as tax holidays and similar exemptions. Most of such tax exemptions are relevant for the companies operating in India. These are briefly described as under:

#### **The location based exemption**

In order to boost industrial and economic development in undeveloped regions, provided certain conditions are met, profits of newly established undertakings located in certain areas in India may benefit from tax holiday under section 80IC of the Income-tax Act, 1961. Such tax holiday works to exempt 100% of the profits for the first five years from the commencement of the tax holiday, and 30% of profits for the subsequent five years. This deduction is available only for units established up to 31 March 2012. However, such undertaking would continue to be subject to the Minimum Alternative tax ('MAT').

#### **Sectoral Benefit - Power Plants and Port Operations**

To encourage the establishment of infrastructure certain power plants and ports have been offered income tax exemptions of upto 100% of profits and gains for any ten consecutive years within the 15-year period following commencement of operations subject to certain conditions under section 80IA of the Income-tax Act, 1961. The Group currently has total operational capacity of 8.25 Giga Watts (GW) of thermal based power generation facilities and wind power capacity of 274 Mega Watts (MW) and port facilities. However, such undertakings would continue to be subject to MAT provisions.

The Group has power plants which benefit from such deductions, at various locations of Hindustan Zinc Limited, Vedanta Limited (where such benefits has been drawn), Talwandi Sabo Power Limited and Bharat Aluminium Company Limited (where no benefit has been drawn).

Further tax incentives exist for certain other infrastructure facilities to exempt 100% of profits and gains for any ten consecutive years within the 20-year period following commencement of these facilities' operation, provided certain conditions are met. HZL currently has certain eligible facilities. However, such facilities would continue to be subject to the MAT provisions.

The Group operates a zinc refinery in Export Processing Zone, Namibia which has been granted tax exempt status by the Namibian government.

In addition, the subsidiaries incorporated in Mauritius are eligible for tax credit to the extent of 80% of the applicable tax rate on foreign source income.

The total effect of such tax holidays and exemptions was US\$ 67 million for the year ended 31 March 2023 (31 March 2022: US\$ 263 million).

## 11. Underlying Attributable Profit/(Loss) for the year

Underlying earnings is an alternative earnings measure, which the management considers to be a useful additional measure of the Group's performance. The Group's Underlying profit/loss is the profit/loss for the year after adding back special items, other losses/(gains) [net] (note 9) and their resultant tax (including taxes classified as special items) & non-controlling interest effects and (Gain)/loss on discontinued operations. This is a non-IFRS measure.

(US\$ million)

	Note	Year ended 31 March 2023	Year ended 31 March 2022
(Loss)/Profit for the year attributable to equity holders of the parent		(5)	1,002
Special items	6	178	(408)
Other (gains)/losses [net]	9	79	38
Tax effect of special items (including taxes classified as special items) and other gains/ (losses) [net]		(120)	160
Non-controlling interest on special items and other gains/ (losses)		(45)	52
<b>Underlying attributable profit for the year</b>		<b>87</b>	<b>844</b>

## 12. Financial asset investments

Financial asset investments represent investments classified and accounted for at fair value through profit or loss or through other comprehensive income.

### Financial Asset Investments

(US\$ million)

	As at 31 March 2023	As at 31 March 2022
At 01 April 2022	20	21
Movements in fair value	(5)	(1)
Investment in Optionally Convertible Redeemable Preference Shares at FVTPL - unquoted		
- Serentica Renewable Power Companies	30	-
Investment in Bonds at FVOCI - quoted	19	-
Exchange difference	(1)	0
<b>At 31 March 2023</b>	<b>63</b>	<b>20</b>

Financial asset investment represents quoted investments in equity shares, debentures and other investments that present the Group with an opportunity for returns through dividend income and gains in value. These securities are held at fair value. These are classified as non-current as at 31 March 2023 and 31 March 2022.

### 13. Short-term investments

	(US\$ million)	
	As at 31 March 2023	As at 31 March 2022
Bank deposits <sup>1,2</sup>	161	849
<b>Other investments</b>		
Investments in quoted Bonds- at FVOCI <sup>3</sup>	516	-
Investments at FVTPL	1,051	2,268
<b>Total</b>	<b>1,728</b>	<b>3,117</b>

(1) The above bank deposits include US\$ 15 million (31 March 2022: US\$ 109 million) on lien with banks, US\$ 5 million (31 March 2022: US\$ 6 million) of margin money, US\$ 56 million (31 March 2022: US\$ 6 million) maintained as debt service reserve account.

(2) Restricted funds of US\$ 3 million (31 March 2022: US\$ 3 million) on lien with Others and US\$ Nil million (31 March 2022: US\$ 21 million) held as interest reserve created against interest payment on loans from banks, US\$ 5 million (31 March 2022: US\$ 5 million) of restricted funds held as collateral in respect of closure costs and US\$ 8 million (31 March 2022: US\$ 7 million) held as margin money against bank guarantee.

(3) Includes investments amounting to US\$ 221 million (31 March 2022: \$ Nil million) are pledged as security for repurchase liability. The Group continues to record these investments as it retains rights to contractual cash flows on such investments and thus do not meet the criteria for derecognition or transfer of financial asset as per IFRS 7.

Bank deposits are made for periods of between three months and one year depending on the cash requirements of the companies within the Group and earn interest at the respective fixed deposit rates.

Other investments include mutual fund investments and investment in bonds which are recorded at fair value with changes in fair value reported through the consolidated income statement. These investments do not qualify for recognition as cash and cash equivalents due to their maturity period and risk of change in value of the investments.

### 14. Cash and cash equivalents

	(US\$ million)	
	As at 31 March 2023	As at 31 March 2022
<b>Cash and cash equivalents consist of the following</b>		
Cash at bank and in hand <sup>(3)</sup>	755	834
Short-term deposits <sup>(2)</sup>	103	432
Restricted cash and cash equivalents <sup>(1)</sup>	179	62
<b>Total</b>	<b>1,037</b>	<b>1,328</b>

(1) Restricted cash and cash equivalents include US\$ 179 million (31 March 2022: US\$ 62 million) that are kept in a specified bank account to be utilised solely for the purpose of the payment of dividends to non-controlling shareholders, which are being carried as a current liability.

(2) Short-term deposits are made for periods of between one day and three months, depending on the immediate cash requirements of the Group, and earn interest at the respective short-term deposit rates.

(3) Including foreign inward remittances aggregating US\$ 40 million (31 March 2022: US\$ 462 million) held by banks in their Nostro accounts on behalf of the Group.

(4) Cash and cash equivalents for the purpose of Statement of Cash Flows comprise the following:

	As at 31 March 2023	As at 31 March 2022
Cash and cash equivalents as above	1,037	1,328
Less: Restricted cash and cash equivalents	(179)	(62)
<b>Total</b>	<b>858</b>	<b>1,266</b>



## 15(a). Borrowings

(US\$ million)

	As at 31 March 2023	As at 31 March 2022
<b>Current borrowings consist of:</b>		
Banks and financial institutions	1,616	1,350
<b>Total short-term borrowings</b>	<b>1,616</b>	<b>1,350</b>
Add: Current maturities of long-term borrowings	4,193	3,622
<b>Current borrowings (A)</b>	<b>5,809</b>	<b>4,972</b>
<b>Non-current borrowings consist of:</b>		
Banks and financial institutions	7,813	7,932
Non-convertible bonds	4,641	5,677
Non-convertible debentures	1,223	1,050
Redeemable Preference shares	0	0
Others	65	73
<b>Total long-term borrowings</b>	<b>13,742</b>	<b>14,732</b>
Less: Current maturities of long-term borrowings	(4,193)	(3,622)
<b>Non-current borrowings (B)</b>	<b>9,549</b>	<b>11,110</b>
<b>Total (A+B)</b>	<b>15,358</b>	<b>16,082</b>

The Group facilities are subject to certain financial and non-financial covenants. The primary covenants which must be complied with include fixed charge cover ratio, net borrowing to EBITDA ratio, total net assets to borrowings ratio, attributable leverage ratio and EBITDA to net interest expense ratio.

**15(b). Movement in net debt <sup>(1)</sup>**

(US\$ million)

	Cash and cash equivalents	Short term investments and Non-current Bank Deposits	Total cash and short-term investments	Short-term borrowing Debt carrying value	Long-term borrowing* Debt carrying value	Total Net Debt
<b>At 01 April 2021</b>	<b>701</b>	<b>4,945</b>	<b>5,646</b>	<b>(546)</b>	<b>(15,831)</b>	<b>(10,731)</b>
Cash flow from continuing operations <sup>(3)</sup>	610	(1,998)	(1,388)	(584)	686	(1,286)
Other non-cash changes <sup>(2)</sup>	-	29	29	21	182	232
Foreign exchange currency translation differences	(45)	154	109	(241)	231	99
<b>At 01 April 2022</b>	<b>1,266</b>	<b>3,130</b>	<b>4,396</b>	<b>(1,350)</b>	<b>(14,732)</b>	<b>(11,686)</b>
Cash flow from continuing operations <sup>(3)</sup>	(325)	(1,093)	(1,418)	(572)	498	(1,492)
Other non-cash changes <sup>(2)</sup>	-	(60)	(60)	(3)	(34)	(97)
Foreign exchange currency translation differences	(83)	(207)	(290)	309	526	545
<b>At 31 March 2023</b>	<b>858</b>	<b>1,770</b>	<b>2,628</b>	<b>(1,616)</b>	<b>(13,742)</b>	<b>(12,730)</b>

\* Includes current maturities of long-term borrowings of US\$ 4,193 million as at 31 March 2023 (31 March 2022: US\$ 3,622 million)

- (1) Net debt is a non-IFRS measure and represents total debt after fair value adjustments under IAS 32 and IFRS 9 as reduced by cash and cash equivalents and short-term investments,
- (2) Other non-cash changes comprise amortisation of borrowing costs, foreign exchange difference on net debt. It also includes US\$ 60 million (31 March 2022: US\$ 28 million) of fair value movement in investments and accrued interest on investments.
- (3) Consists of net repayment of working capital loan, proceeds and repayments of short-term and long-term borrowings.

## Other information:

### Alternative performance measures

#### Introduction

Vedanta Group is committed to providing timely and clear information on financial and operational performance to investors, lenders and other external parties, in the form of annual reports, disclosures, RNS feeds and other communications. We regard high standards of disclosure as critical to business success.

Alternative Performance Measure (APM) is an evaluation metric of financial performance, financial position or cash flows that is not defined or specified under International Financial Reporting Standards (IFRS).

The APMs used by the group fall under two categories:

- *Financial APMs: These financial metrics are usually derived from financial statements, prepared in accordance with IFRS. Certain financials metrics cannot be directly derived from the financial statements as they contain additional information such as profit estimates or projections, impact of macro-economic factors and changes in regulatory environment on financial performance.*
- *Non-Financial APMs: These metrics incorporate non – financial information that management believes is useful in assessing the performance of the group.*

APMs are not uniformly defined by all the companies, including those in the Group's industry. APM's should be considered in addition to, and not a substitute for or as superior to, measures of financial performance, financial position or cash flows reported in accordance with IFRS.

#### Purpose

The Group uses APMs to improve comparability of information between reporting periods and business units, either by adjusting for uncontrollable or one-off factors which impacts upon IFRS measures or, by aggregating measures, to aid the user of the Annual Report in understanding the activity taking place across the Group's portfolio.

APMs are used to provide valuable insight to analysts and investors along with Generally Accepted Accounting Practices (GAAP). We believe these measures assist in providing a holistic view of the company's performance.

Alternative performance measures (APMs) are denoted by  $\diamond$  where applicable.

APM terminology*	Closest equivalent IFRS measure	Adjustments to reconcile to primary statements
EBITDA	Operating profit/(loss) before special items	Operating Profit/(Loss) before special items Add: Depreciation & Amortization
EBITDA margin (%)	No direct equivalent	EBITDA divided by Revenue
Adjusted revenue	Revenue	Revenue Less: revenue of custom smelting operations at our Copper India & Zinc India business
Adjusted EBITDA	Operating profit/(loss) before special items	EBITDA Less: EBITDA of custom smelting operations at our Copper India & Zinc India business
Adjusted EBITDA margin	No direct equivalent	Adjusted EBITDA divided by Adjusted Revenue
Underlying profit/(loss)	Attributable Profit/(loss) before special items	Attributable profit/(loss) before special items Less: NCI share in other gains/(losses) (net of tax)

Project Capex	Expenditure on Property, Plant and Equipment (PPE)	Gross Addition to PPE Less: Gross disposals to PPE Add: Accumulated Depreciation on disposals Less: Decommissioning liability Less: Sustaining Capex
Free cash flow	Net cash flow from operating activities	Net Cash flow from operating activities Less: purchases of property, plant and equipment and intangibles less proceeds on disposal of property, plant and equipment Add: Dividend paid and dividend distribution tax paid Add/less: Other non-cash adjustments
Net debt*	Net debt is a Non-IFRS measure and represents total debt after fair value adjustments under IAS 32 and IFRS 9 as reduced by cash and cash equivalents, liquid investments and structured investment, net of the deferred consideration payable for such investments (referred as Financial asset investment net of related liabilities), if any.	No Adjustments
ROCE	No direct Equivalent	Not Applicable

ROCE for FY2023 is calculated based on the working summarized below. The same method is used to calculate the ROCE for all previous years (stated at other places in the report).

Particulars	Period ended 31 March 2023
Operating Profit Before Special Items	3,196
Less: Cash Tax Outflow	689
Operating Profit before special Items less Tax outflow (a)	<b>2,507</b>
Opening Capital Employed (b)	13,221
Closing Capital Employed (c)	11,858
Average Capital Employed (d)= (a+b)/2	<b>12,540</b>
ROCE (a)/(d)	<b>20.0%</b>

Adjusted Revenue, EBITDA & EBITDA Margin for FY 2023 is calculated based on the working summarised below. The same method is used to calculate the adjusted revenue and EBITDA for all previous years (stated at other places in the report).

Particulars	Period ended 31 March 2023
Revenue	18,141
Less: Revenue of Custom smelting operations	2,179
Adjusted Revenue(a)	<b>15,962</b>
EBITDA	4,608
Less: EBITDA of Custom smelting operations	(7)
Adjusted EBITDA(b)	<b>4,615</b>
Adjusted EBITDA Margin (b)/(a)	<b>29%</b>

## **Glossary and definitions**

### **Adapted Comparator Group**

The new comparator group of companies used for the purpose of comparing TSR performance in relation to the LTIP, adopted by the Remuneration Committee on 1 February 2006 and replacing the previous comparator group comprising companies constituting the FTSE Worldwide Mining Index (excluding precious metals)

### **Adjusted EBITDA**

Group EBITDA net of EBITDA from custom smelting operations at Copper India & Zinc India operations.

### **Adjusted EBITDA margin**

EBITDA margin computed on the basis of Adjusted EBITDA and Adjusted Revenue as defined elsewhere

### **Adjusted Revenue**

Group Revenue net of revenue from custom smelting operations at Copper India & Zinc India operations.

### **Aluminium Business**

The aluminium business of the Group, comprising of its fully integrated bauxite mining, alumina refining and aluminium smelting operations in India, and trading through the Bharat Aluminium Company Limited and Jharsuguda Aluminium (a division of Vedanta Limited), in India

### **Articles of Association**

The articles of association of Vedanta Resources Limited

### **Attributable Profit**

Profit for the financial year before dividends attributable to the equity shareholders of Vedanta Resources Limited

### **BALCO**

Bharat Aluminium Company Limited, a company incorporated in India.

### **BMM**

Black Mountain Mining Pty

### **Board or Vedanta Board**

The board of directors of the Company

### **Board Committees**

The committees reporting to the Board: Audit, Remuneration, Nominations, and Sustainability, each with its own terms of reference

### **Businesses**

The Aluminium Business, the Copper Business, the Zinc, lead, silver, Iron ore, Power and Oil & Gas Business together

### **Boepd**

Barrels of oil equivalent per day

### **Bopd**

Barrels of oil per day

### **Cairn India**

Erstwhile Cairn India Limited and its subsidiaries

## **Capital Employed**

Net assets before Net (Debt)/Cash

## **Capex**

Capital expenditure

## **CEO**

Chief executive officer

## **CFO**

Chief Financial Officer

## **CII**

Confederation of Indian Industries

## **CO2**

Carbon dioxide

## **COP**

Cost of production

## **CMT**

Copper Mines of Tasmania Pty Limited, a company incorporated in Australia

## **Company or Vedanta**

Vedanta Resources Limited

## **Company financial statements**

The audited financial statements for the Company for the year ended 30 September 2019 as defined in the Independent Auditors' Report on the individual Company Financial Statements to the members of Vedanta Resources Limited

## **Copper Business**

The copper business of the Group, comprising:

- A copper smelter, two refineries and two copper rod plants in India, trading through Vedanta Limited, a company incorporated in India;
- One copper mine in Australia, trading through Copper Mines of Tasmania Pty Limited, a company incorporated in Australia; and
- An integrated operation in Zambia consisting of three mines, a leaching plant and a smelter, trading through Konkola Copper Mines Limited, a company incorporated in Zambia which is treated as discontinued operations and deconsolidated the same w.e.f 1st June'2019, affiliation with Zambian government is in progress.

## **Copper India**

Copper Division of Vedanta Limited comprising of a copper smelter, two refineries and two copper rod plants in India.

## **Cents/lb**

US cents per pound

## **CRRl**

Central Road Research Institute

## **CRISIL**

CRISIL Limited (A S&P Subsidiary) is a rating agency incorporated in India

**CSR**

Corporate social responsibility

**CTC**

Cost to company, the basic remuneration of executives, which represents an aggregate figure encompassing basic pay, pension contributions and allowances

**CY**

Calendar year

**DDT**

Dividend distribution tax

**Deferred Shares**

Deferred shares of £1.00 each in the Company

**DFS**

Detailed feasibility study

**DGMS**

Director General of Mine Safety in the Government of India

**Directors**

The Directors of the Company

**DMF**

District Mineral Fund

**DMT**

Dry metric tonne

**Dollar or \$**

United States Dollars, the currency of the United States of America

**EAC**

Expert advisory committee

**EBITDA**

EBITDA is a non-IFRS measure and represents earnings before special items, depreciation, amortisation, other gains and losses, interest and tax.

**EBITDA Margin**

EBITDA as a percentage of turnover

**Economic Holdings or Economic Interest**

The economic holdings/interest are derived by combining the Group's direct and indirect shareholdings in the operating companies. The Group's Economic Holdings/Interest is the basis on which the Attributable Profit and net assets are determined in the consolidated accounts

**E&OHSAS**

Environment and occupational health and safety assessment standards

**E&OHS**

Environment and occupational health and safety management system

**ESOP**

Employee share option plan

## **ESP**

Electrostatic precipitator

## **Executive Committee**

The Executive Committee to whom the Board has delegated operational management. It comprises of the Chief Executive Officer and the senior management of the Group

## **Executive Directors**

The Executive Directors of the Company

## **Expansion Capital Expenditure**

Capital expenditure that increases the Group's operating capacity

## **Financial Statements or Group financial statements**

The consolidated financial statements for the Company and the Group for the year ended 31 March 2019 as defined in the Independent Auditor's Report to the members of Vedanta Resources Limited

## **Free Cash Flow**

Net Cash flow from operating activities Less: purchases of property, plant and equipment and intangibles Add proceeds on disposal of property, plant and equipment Add: Dividend paid and dividend distribution tax paid

Add/less: Other non-cash adjustments

## **FY**

Financial year i.e. April to March.

## **GAAP, including UK GAAP**

Generally Accepted Accounting Principles, the common set of accounting principles, standards and procedures that companies use to compile their financial statements in their respective local territories

## **GDP**

Gross domestic product

## **Gearing**

Net Debt as a percentage of Capital Employed

## **GJ**

Giga joule

## **Government or Indian Government**

The Government of the Republic of India

## **Gratuity**

A defined contribution pension arrangement providing pension benefits consistent with Indian market practices

## **Group**

The Company and its subsidiary undertakings and, where appropriate, its associate undertaking

## **Gross finance costs**

Finance costs before capitalisation of borrowing costs

## **HIIP**

Hydrocarbons initially-in place



**HSE**

Health, safety and environment

**HZL**

Hindustan Zinc Limited, a company incorporated in India

**IAS**

International Accounting Standards

**IFRIC**

IFRS Interpretations Committee

**IFRS**

International Financial Reporting Standards

**INR**

Indian Rupees

**Interest cover**

EBITDA divided by gross finance costs (including capitalised interest) excluding accretive interest on convertible bonds, unwinding of discount on provisions, interest on defined benefit arrangements less investment revenue

**IPP**

Independent power plant

**Iron Ore Sesa**

Iron ore Division of Vedanta Limited, comprising of Iron ore mines in Goa and Karnataka in India.

**Jharsuguda Aluminium**

Aluminium Division of Vedanta Limited, comprising of an aluminium refining and smelting facilities at Jharsuguda and Lanjigarh in Odisha in India.

**KCM or Konkola Copper Mines**

Konkola Copper Mines LIMITED, a company incorporated in Zambia

**Key Result Areas or KRAs**

For the purpose of the remuneration report, specific personal targets set as an incentive to achieve short-term goals for the purpose of awarding bonuses, thereby linking individual performance to corporate performance

**KPIs**

Key performance indicators

**KTPA**

Thousand tonnes per annum

**Kwh**

Kilo-watt hour

**KBOEPD**

Kilo barrel of oil equivalent per day

**LIBOR**

London inter bank offered rate

**LIC**

Life Insurance Corporation

**LME**

London Metals Exchange

**London Stock Exchange**

London Stock Exchange Limited

**Lost time injury**

An accident/injury forcing the employee/contractor to remain away from his/her work beyond the day of the accident

**LTIFR**

Lost time injury frequency rate: the number of lost time injuries per million man hours worked

**LTIP**

The Vedanta Resources Long-Term Incentive Plan or Long-Term Incentive Plan

**MALCO**

The Madras Aluminium Company Limited, a company incorporated in India

**Management Assurance Services (MAS)**

The function through which the Group's internal audit activities are managed

**MAT**

Minimum alternative tax

**MBA**

Mangala, Bhagyam, Aishwarya oil fields in Rajasthan

**MIC**

Metal in concentrate

**MOEF**

The Ministry of Environment, Forests and Climate change of the Government of the Republic of India

**MMSCFD**

Million standard cubic feet per day

**MT or Tonnes**

Metric tonnes

**MU**

Million Units

**MW**

Megawatts of electrical power

**NCCBM**

National Council of Cement and Building Materials

**Net (Debt)/Cash**

Net debt is a Non-IFRS measure and represents total debt after fair value adjustments under IAS 32 and IFRS 9 as reduced by cash and cash equivalents, liquid investments and structured investment, net of the deferred consideration payable for such investments (referred as Financial asset investment net of related liabilities), if any.

**NGO**

Non-governmental organisation

## **Non-executive Directors**

The Non-Executive Directors of the Company

## **Oil & Gas business**

Oil & Gas division of Vedanta Limited, is involved in the business of exploration, development and production of Oil & Gas.

## **OALP**

Open Acreage licensing Policy

## **Ordinary Shares**

Ordinary shares of 10 US cents each in the Company

## **ONGC**

Oil and Natural Gas Corporation Limited, a company incorporated in India

## **OPEC**

Organisation of the Petroleum Exporting Countries

## **PBT**

Profit before tax

## **PPE**

Property plant and equipment

## **Provident Fund**

A defined contribution pension arrangement providing pension benefits consistent with Indian market practices

## **PSC**

A “production sharing contract” by which the Government of India grants a license to a company or consortium of companies (the ‘Contractor’) to explore for and produce any hydrocarbons found within a specified area and for a specified period, incorporating specified obligations in respect of such activities and a mechanism to ensure an appropriate sharing of the profits arising there from (if any) between the Government and the Contractor.

## **PSP**

The Vedanta Resources Performance Share Plan

## **Recycled water**

Water released during mining or processing and then used in operational activities

## **Relationship Agreement**

The agreement between the Company, Volcan Investments Limited and members of the Agarwal family which had originally been entered into at the time of the Company’s listing in 2003 and was subsequently amended in 2011 and 2014 to regulate the ongoing relationship between them, the principal purpose of which is to ensure that the Group is capable of carrying on business independently of Volcan, the Agarwal family and their associates.

## **Return on Capital Employed or ROCE**

Operating profit before special items net of tax outflow, as a ratio of average capital employed

## **RO**

Reverse osmosis

## **Senior Management Group**

For the purpose of the remuneration report, the key operational and functional heads within the Group

**SEWT**

Sterlite Employee Welfare Trust, a long-term investment plan for Sterlite senior management

**SHGs**

Self help groups

**SBU**

Strategic Business Unit

**STL**

Sterlite Technologies Limited, a company incorporated in India

**Special items**

Items which derive from events and transactions that need to be disclosed separately by virtue of their size or nature

**Sterling, GBP or £**

The currency of the United Kingdom

**Superannuation Fund**

A defined contribution pension arrangement providing pension benefits consistent with Indian market practices

**Sustaining Capital Expenditure**

Capital expenditure to maintain the Group's operating capacity

**TCM**

Thalanga Copper Mines Pty Limited, a company incorporated in Australia

**TC/RC**

Treatment charge/refining charge being the terms used to set the smelting and refining costs

**TGT**

Tail gas treatment

**TLP**

Tail Leaching Plant

**TPA**

Metric tonnes per annum

**TPM**

Tonne per month

**TSPL**

Talwandi Sabo Power Limited, a company incorporated in India

**TSR**

Total shareholder return, being the movement in the Company's share price plus reinvested dividends

**Twin Star**

Twin Star Holdings Limited, a company incorporated in Mauritius

**Twin Star Holdings Group**

Twin Star and its subsidiaries and associated undertaking

**US cents**

United States cents

Underlying profit/ (loss)

Attributable profit/(loss) before special items Less: NCI share in other gains/(losses) (net of tax)

**Vedanta Limited (formerly known as Sesa Sterlite Limited/ Sesa Goa Limited)**

Vedanta Limited, a company incorporated in India engaged in the business of Oil & Gas exploration and production, copper smelting, Iron Ore mining, Alumina & Aluminium production and Energy generation.

**VFJL**

Vedanta Finance (Jersey) Limited, a company incorporated in Jersey

**VGCB**

Vizag General Cargo Berth Private Limited, a company incorporated in India

**Volcan**

Volcan Investments Limited, a company incorporated in the Bahamas

**VRCL**

Vedanta Resources Cyprus Limited, a company incorporated in Cyprus

**VRFL**

Vedanta Resources Finance Limited, a company incorporated in the United Kingdom

**VRHL**

Vedanta Resources Holdings Limited, a company incorporated in the United Kingdom

**Water Used for Primary Activities**

Total new or make-up water entering the operation and used for the operation's primary activities; primary activities are those in which the operation engages to produce its product

**WBCSD**

World Business Council for Sustainable Development

**ZCI**

Zambia Copper Investment Limited, a company incorporated in Bermuda

**ZCCM**

ZCCM Investments Holdings Limited, a company incorporated in Zambia

**ZRA**

Zambia Revenue Authority

**ZI**

Zinc International

The results will be available in the Investor Relations section of our website  
[www.vedantaresources.com](http://www.vedantaresources.com)

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**About Vedanta Resources**

Vedanta Resources Limited (“Vedanta”) is a diversified global natural resources company. The group produces aluminium, copper, zinc, lead, silver, iron ore, oil & gas, and commercial energy. Vedanta has operations in India, Zambia, Namibia and South Africa. With an empowered talent pool globally, Vedanta places strong emphasis on partnering with all its stakeholders based on the core values of trust, sustainability, growth, entrepreneurship, integrity, respect, and care. Good governance and sustainable development are at the core of Vedanta's strategy, with a strong focus on health, safety, and environment, and on enhancing the lives of local communities. The group has a strong focus on achieving best in class ESG practices. The group's CSR philosophy is to eradicate poverty and malnutrition with a focus on development of women & children. For more information on Vedanta Resources, please visit [www.vedantaresources.com](http://www.vedantaresources.com).

**Disclaimer**

This press release contains “forward-looking statements” – that is, statements related to future, not past, events. In this context, forward-looking statements often address our expected future business and financial performance, and often contain words such as “expects,” “anticipates,” “intends,” “plans,” “believes,” “seeks,” “should” or “will.” Forward-looking statements by their nature address matters that are, to different degrees, uncertain. For us, uncertainties arise from the behaviour of financial and metals markets including the London Metal Exchange, fluctuations in interest and or exchange rates and metal prices; from future integration of acquired businesses; and from numerous other matters of national, regional, and global scale, including those of a political, economic, business, competitive or regulatory nature. These uncertainties may cause our actual future results to be materially different that those expressed in our forward-looking statements. We do not undertake to update our forward-looking statements.