

Vale's performance in 2Q24

Rio de Janeiro, July 25th, 2024. *“Our strong operational performance continues quarter after quarter. In Iron Ore Solutions, we achieved record-high second quarter production since 2018, driven mainly by consistent performance at S11D. As part of our strategic objective to become the supplier of choice for low-carbon steel, we are advancing on key growth projects such as Vargem Grande and Capanema, which together will add 30 Mt of capacity in the next twelve months. Additionally, we are pleased to announce a partnership within our Mega Hubs strategy, further strengthening our market position as a competitive direct reduction products supplier. In Energy Transition Metals, we resumed operations at Sossego, Onça Puma, and Salobo. We recently announced Shaun Usmar as the new CEO to lead our copper and nickel business, bringing his extensive mining experience and strategic vision. Lastly, we are proud to have successfully eliminated the B3/B4 dam and we are on track to conclude 53% of the decharacterization program by year-end, reinforcing our commitment to safety and sustainability.”* commented Eduardo Bartolomeo, Chief Executive Officer.

Selected financial indicators

US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
Net operating revenues	9,920	9,673	3%	8,459	17%	18,379	18,107	2%
Total costs and expenses (ex-Brumadinho and dam decharacterization) ¹	(6,974)	(6,412)	9%	(5,897)	18%	(12,871)	(11,815)	9%
Expenses related to Brumadinho event and dam decharacterization	1	(271)	n.a.	(41)	n.a.	(40)	(382)	-90%
Adjusted EBIT	3,200	3,219	-1%	2,724	17%	5,924	6,277	-6%
Adjusted EBIT margin (%)	32%	33%	-1 p.p	32%	0 p.p	32%	35%	-3 p.p
Adjusted EBITDA	3,993	3,998	0%	3,438	16%	7,431	7,712	-4%
Adjusted EBITDA margin (%)	40%	41%	-1 p.p	41%	-1 p.p	40%	43%	-3 p.p
Proforma adjusted EBITDA ^{2,3}	3,992	4,269	-6%	3,479	15%	7,471	8,094	-8%
Net income attributable to Vale's shareholders	2,769	892	210%	1,679	65%	4,448	2,729	63%
Net debt ⁴	8,590	8,908	-4%	10,105	-15%	8,590	8,908	-4%
Expanded net debt	14,683	14,690	0%	16,388	-10%	14,683	14,690	0%
Capital expenditures	1,328	1,208	10%	1,395	-5%	2,723	2,338	16%

¹ Includes adjustment of US\$ 83 million in 2Q24, US\$ 67 million in 1Q24, US\$ 150 million in 1H24, US\$ 52 million in 2Q23 and US\$ 87 million in 1H23 to reflect the performance of the streaming transactions at market price. ² Excluding expenses related to Brumadinho. ³ Including the EBITDA from associates and JVs. Historical figures were restated. ⁴ Including leases (IFRS 16).

Highlights

Business Results

- Iron ore shipments increased by 5.4 Mt (+7%) y/y and 16.0 Mt (25%) q/q, driven by record production for a second quarter since 2018, as well as by inventory sales.
- The strong shipment performance led to a Proforma EBITDA of US\$ 4.0 billion. Year-on-year, Proforma EBITDA was slightly lower (-6%), mainly due to higher freight costs and concentration of maintenance activities to maximize performance in the 2H24. Proforma EBITDA increased 15% sequentially.
- Iron ore fines C1 cash cost ex-3rd party purchases was 6% higher q/q, reaching US\$ 24.9/t, mainly due to a seasonal inventory turnover impact and concentration of maintenance activities. These effects were partially offset by the positive impact of higher production volumes and the BRL depreciation. We remain highly confident in achieving our C1 cost guidance of US\$ 21.5-23.0/t in 2024, especially as lower-cost volumes from the Northern System ramp-up in the 2H, while the heavier maintenance activities during the 1H set the stage for a stronger cost and operating performance in the 2H.

- Iron ore fines freight cost decreased US\$ 0.3/t q/q, reaching US\$ 19.0/t, US\$ 6.8/t lower than the Brazil-China C3 route average in Q2, driven by our long-term affreightment contracts exposure.
- Copper and nickel all-in costs were US\$ 3,651/t and US\$ 15,000/t in the quarter, respectively, with both businesses on track to deliver their respective cost guidances for the year.

Disciplined capital allocation

- Capital expenditures of US\$ 1.3 billion in Q2, US\$ 0.1 billion higher y/y, in line with the year's guidance (US\$ ~6.5 billion).
- Gross debt and leases of US\$ 15.1 billion as of June 30th, 2024, US\$ 0.5 billion higher q/q. In the quarter, Vale implemented a liability management strategy with a US\$ 1.0 billion bond offering and a US\$ 1.0 billion tender offer and redemption program. The bond offering was concluded in June and the settlement of the tender offer and redemption in July, resulting in a temporary increase in gross debt, which was partially offset by a US\$ 0.5 billion debt repayment.
- Expanded net debt of US\$ 14.7 billion as of June 30th, 2024, US\$ 1.7 billion lower q/q, mainly driven by the proceeds received from Manara Minerals, following the Vale Base Metals partnership deal. Vale's expanded net debt target remains at US\$ 10-20 billion.

Value creation and distribution

- US\$ 1.6 billion in interest on capital to be paid in September 2024, consistent with Vale's minimum dividend policy applied to 1H24 results.
- Allocation of US\$ 114 million as part of the 4th buyback program in the quarter. As of the date of this report, the 4th buyback program was 22% complete¹, with 33.1 million shares repurchased.

Recent developments

- The Onça Puma nickel mine and the Sossego copper mine resumed activities in June, after the Pará State environmental authority reinstated their operating licenses, which were halted since April.
- The Salobo 3 processing plant operations resumed in July, after being halted for 31 days due to a fire at the conveyor belt. Vale's 2024 copper production guidance of 320-355 kt has been maintained.

Focusing and strengthening the core

• Gaining momentum on Iron Ore Solutions:

- Key growth projects are underway: +15 Mt at Vargem Grande and +15 Mt at Capanema are 96% and 83% complete and on track to start-up in 4Q24 and in mid-2025, respectively.
- Vale signed, in July, a partnership to build an iron ore concentration plant in Sohar, Oman. With an initial production capacity of 12 Mtpa of high-grade iron ore concentrates, primarily suitable for direct reduction agglomerates, the plant will feed Vale's pellet plants and future briquette plants in the region. The start-up is expected in 2027. The partner will wholly own and operate the plant, and Vale will invest in the infrastructure to connect the concentration plant to its agglomeration facilities in the region. The concentration plant development is an important step in Vale's strategy to develop low-carbon solutions for the steel industry. Vale aims to replicate this asset-light investment model for metal production in the Mega Hubs.

• Building a unique Energy Transition Metals vehicle:

- In April, Vale completed the strategic partnership with Manara Minerals, a joint venture between Ma'aden and Saudi Arabia's Public Investment Fund. Manara invested US\$ 2.5 billion for a 10% equity interest in Vale Base Metals Limited (VBM), the holding company of Vale's Energy Transition Metals business.

¹ Related to the October 2023 4th buyback program for a total of 150 million shares.

- In June, PT Vale Indonesia Tbk (PTVI) divestment obligation was concluded. In connection with that, the special license for PTVI was renewed until December 2035 with the possibility of an extension beyond that period. Vale Canada Limited now owns 33.9% of PTVI's shares and will continue to influence PTVI through nominations to the Board of Commissioners. Moreover, its offtake rights are preserved. Vale will deconsolidate PTVI and add its proportionate EBITDA starting in Q3.

Promoting sustainable mining

- The B3/B4 dam decharacterization was completed in May. The dam, located in Nova Lima, Minas Gerais, was classified with the highest emergency level in 2019. The B3/B4 dam was Vale's 14th upstream dam decharacterized since the Upstream Dam Decharacterization Program was created in 2019.
- Vale has voluntarily adopted the international standard issued by the International Sustainability Standards Board (ISSB) for preparing and reporting financial information related to sustainability. The first report under the ISSB standard is expected to be released in 2025, based on the fiscal year of 2024.
- Vale has published the TNFD (Taskforce on Nature-related Financial Disclosures) report for the year of 2023, presenting results of the application of the LEAP (Locate, Evaluate, Assess and Prepare) approach to our direct operations in Brazil.
- Vale and Komatsu have signed an agreement to develop and test, in partnership with Cummins, Dual-Fuel haul trucks, powered by a mixture of ethanol and diesel. They will be the world's first trucks of their size, with payloads of 230 to 290 tons, to run on ethanol. The Dual Fuel Program will contribute to Vale's goal of reducing scope 1 and 2 carbon emissions (direct and indirect) by 33% by 2030 and becoming net-zero by 2050.

Reparation

- The Brumadinho Integral Reparation Agreement continues to progress with 75% of the agreed-upon commitments completed and in accordance with the settlement deadlines. In addition, R\$ 3.6 billion were paid in individual compensation since 2019.
- In the Mariana reparation, Vale, alongside Samarco and BHP, is in advanced negotiations to seek a settlement of the obligations under the Framework Agreement, the Federal Public Prosecution Office Claim, and other claims by government entities relating to Samarco's Fundão dam failure. Vale remains fully committed to supporting the extensive ongoing remediation and compensation efforts in Brazil and is engaged in reaching mutually beneficial resolution for all parties. Renova continues to progress with its disbursements, which reached R\$ 37 billion in the end of the quarter.

Adjusted EBITDA

US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
Net operating revenues	9,920	9,673	3%	8,459	17%	18,379	18,107	2%
COGS	(6,349)	(5,940)	7%	(5,367)	18%	(11,716)	(10,889)	8%
SG&A	(137)	(139)	-1%	(140)	-2%	(277)	(257)	8%
Research and development	(189)	(165)	15%	(156)	21%	(345)	(304)	13%
Pre-operating and stoppage expenses	(91)	(103)	-12%	(92)	-1%	(183)	(227)	-19%
Expenses related to Brumadinho & dam decharacterization	1	(271)	n.a.	(41)	n.a.	(40)	(382)	-90%
Other operational expenses ¹	(208)	(65)	220%	(142)	46%	(350)	(138)	154%
EBITDA from associates and JVs	253	229	10%	203	25%	456	367	24%
Adjusted EBIT	3,200	3,219	-1%	2,724	17%	5,924	6,277	-6%
Depreciation, amortization & depletion	793	779	2%	714	11%	1,507	1,435	5%
Adjusted EBITDA	3,993	3,998	0%	3,438	16%	7,431	7,712	-4%
Proforma Adjusted EBITDA²	3,992	4,269	-6%	3,479	15%	7,471	8,094	-8%

¹ Includes adjustment of US\$ 83 million in 2Q24, US\$ 67 million in 1Q24, US\$ 150 million in 1H24, US\$ 52 million in 2Q23 and US\$ 87 million in 1H23, to reflect the performance of the streaming transactions at market price. ² Excluding expenses related to Brumadinho.

Proforma adjusted EBITDA– US\$ million, 2Q24 vs. 2Q23

US\$ million



¹ Excluding Brumadinho expenses. 2Q23 EBITDA was restated, including JV's EBITDA (US\$ 229 million) and excluding JV's dividends (US\$ 105 million). ² Including adjustments of provisional pricing. ³ Includes JV's EBITDA, one-off items and others.

Sales & price realization

Volume sold - Minerals and metals

'000 metric tons	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
Iron ore	79,792	74,374	7%	63,827	25%	143,619	130,032	10%
Iron ore fines	68,512	63,329	8%	52,546	30%	121,058	109,190	11%
ROM	2,416	2,236	8%	2,056	18%	4,471	3,900	15%
Pellets	8,864	8,809	1%	9,225	-4%	18,089	16,942	7%
Nickel	34	40	-15%	33	4%	67	80	-16%
Copper ¹	76	74	3%	77	-1%	153	137	12%
Gold as by-product ('000 oz) ¹	98	88	11%	97	1%	194	159	22%
Silver as by-product ('000 oz) ¹	448	518	-14%	433	3%	881	924	-5%
PGMs ('000 oz)	38	89	-57%	73	-48%	110	163	-32%
Cobalt (metric ton)	320	660	-52%	465	-31%	785	1,281	-39%

¹ Including sales originated from both nickel and copper operations.

Average realized prices

US\$/ton	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
Iron ore - 62% Fe reference price	111.8	111.0	1%	123.6	-10%	117.7	118.3	0%
Iron ore fines Vale CFR/FOB realized price	98.2	98.5	0%	100.7	-2%	99.3	102.7	-3%
Pellets CFR/FOB (wmt)	157.2	160.4	-2%	171.9	-9%	164.7	161.4	2%
Nickel	18,638	23,070	-19%	16,848	11%	17,758	24,162	-27%
Copper ²	9,187	6,986	32%	7,632	20%	8,406	8,048	4%
Gold (US\$/oz) ¹²	2,368	2,082	14%	1,398	69%	2,224	1,975	13%
Silver (US\$/oz) ²	27.8	24.0	16%	23.0	21%	25.4	24.1	5%
Cobalt (US\$/t) ¹	28,258	34,694	-19%	28,096	1%	29,586	33,790	-12%

¹ Prices presented above were adjusted to reflect the market prices of products delivered related to the streaming transactions. ² Including sales originated from both nickel and copper operations.

Costs

COGS by business segment

US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
Iron Ore Solutions	4,951	4,282	16%	4,006	24%	8,957	7,572	18%
Energy Transition Metals	1,398	1,617	-14%	1,361	3%	2,759	3,237	-15%
Others	-	41	-100%	-	0%	-	80	-100%
Total COGS¹	6,349	5,940	7%	5,367	18%	11,716	10,889	8%
Depreciation	763	737	4%	678	13%	1,441	1,350	7%
COGS, ex-depreciation	5,586	5,203	7%	4,689	19%	10,275	9,539	8%

¹ COGS currency exposure in 2Q24 was as follows: 47.8% BRL, 46.7% USD, 5.3% CAD and 0.2% Other currencies.

Expenses

US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
SG&A	137	139	-1%	140	-2%	277	257	8%
Administrative	116	118	-2%	120	-3%	236	219	8%
Personnel	42	52	-19%	56	-25%	98	97	1%
Services	41	30	37%	32	28%	73	58	26%
Depreciation	9	14	-36%	10	-10%	19	25	-24%
Others	24	22	9%	22	9%	46	39	18%
Selling	21	21	0%	20	5%	41	38	8%
R&D	189	165	15%	156	21%	345	304	13%
Pre-operating and stoppage expenses	91	103	-12%	92	-1%	183	227	-19%
Expenses related to Brumadinho and dam decharacterization	(1)	271	n.a.	41	n.a.	40	382	-90%
Other operating expenses	290	117	148%	209	39%	499	225	122%
Total operating expenses	706	795	-11%	638	11%	1,344	1,395	-4%
Depreciation	30	42	-29%	36	-17%	66	85	-22%
Operating expenses, ex-depreciation	676	753	-10%	602	12%	1,278	1,310	-2%

Brumadinho

Impact of Brumadinho and Decharacterization in 2Q24

US\$ million	Provisions balance 31mar24	EBITDA impact ²	Payments	FX and other adjustments ³	Provisions balance 30jun24
Decharacterization	3,211	(70)	(132)	(271)	2,738
Agreements & donations ¹	2,894	(14)	(265)	(203)	2,412
Total Provisions	6,105	(84)	(397)	(474)	5,150
Incurring Expenses	-	83	(83)	-	-
Total	6,105	(1)	(480)	(474)	5,150

¹ Includes Integral Reparation Agreement, individual, labor and emergency indemnifications, tailing removal and containment works. ² Includes the revision of estimates for provisions and incurred expenses, including discount rate effect. ³ Includes foreign exchange, present value and other adjustments.

Impact of Brumadinho and Decharacterization from 2019 to 2Q24

US\$ million	EBITDA impact	Payments	PV & FX adjust ²	Provisions balance 30jun24
Decharacterization	5,060	(1,847)	(475)	2,738
Agreements & donations ¹	9,099	(6,732)	45	2,412
Total Provisions	14,159	(8,579)	(430)	5,150
Incurring expenses	3,170	(3,170)	-	-
Others	180	(178)	(2)	-
Total	17,509	(11,927)	(432)	5,150

¹ Includes Integral Reparation Agreement, individual, labor and emergency indemnifications, tailing removal and containment works. ² Includes foreign exchange, present value and other adjustments.

Cash outflow of Brumadinho & Decharacterization commitments^{1,2}:

US\$ billion	Since 2019 until 2Q24 disbursed	2H24	2025	2026	2027	Yearly average 2028-2035 ³
Decharacterization	1.8	0.3	0.5	0.5	0.4	0.2
Integral Reparation Agreement & other reparation provisions	6.7	0.6	0.9	0.6	0.2	0.1 ⁴
Incurring expenses	3.2	0.3	0.4	0.4	0.3	0.4 ⁵
Total	11.7	1.2	1.8	1.5	0.9	-

¹ Estimate cash outflow for 2024-2035 period, given BRL-USD exchange rates of 5.5589. ² Amounts stated without discount to present value, net of judicial deposits and inflation adjustments. ³ Estimate annual average cash flow for Decharacterization provisions in the 2028-2035 period is US\$ 238 million per year. ⁴ Disbursements related to the Integral Reparation Agreement ending in 2031. ⁵ Disbursements related to incurred expenses ending in 2028.

Net income

Reconciliation of proforma EBITDA to net income

US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
Proforma Adjusted EBITDA	3,992	4,269	-6%	3,479	15%	7,471	8,094	-8%
Brumadinho and dam decharacterization	1	(271)	n.a.	(41)	n.a.	(40)	(382)	-90%
Adjusted EBITDA	3,993	3,998	0%	3,438	16%	7,431	7,712	-4%
Impairment reversal (impairment and disposals) of non-current assets, net ¹	928	(118)	n.a.	(73)	n.a.	885	(70)	n.a.
EBITDA from associates and JVs	(253)	(229)	10%	(203)	25%	(456)	(367)	24%
Equity results and net income (loss) attributable to noncontrolling interests	112	(31)	n.a.	116	-3%	198	(214)	n.a.
Financial results	(1,252)	(157)	697%	(437)	186%	(1,689)	(687)	146%
Income taxes	34	(1,792)	n.a.	(448)	n.a.	(414)	(2,210)	-81%
Depreciation, depletion & amortization	(793)	(779)	2%	(714)	11%	(1,507)	(1,435)	5%
Net income attributable to Vale's shareholders	2,769	892	210%	1,679	65%	4,448	2,729	63%

¹ Includes adjustments of US\$ 83 million in 2Q24, US\$ 67 million in 1Q24, US\$ 150 million in 1H24, US\$ 52 million in 2Q23 and US\$ 87 million in 1H23, to reflect the performance of the streaming transactions at market price.

Financial results

US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
Financial expenses, of which:	(365)	(397)	-8%	(339)	8%	(704)	(717)	-2%
Gross interest	(211)	(185)	14%	(171)	23%	(382)	(365)	5%
Capitalization of interest	8	5	60%	5	60%	13	10	30%
Others	(139)	(179)	-22%	(145)	-4%	(284)	(286)	-1%
Financial expenses (REFIS)	(23)	(38)	-39%	(28)	-18%	(51)	(76)	-33%
Financial income	78	106	-26%	109	-28%	187	227	-18%
Shareholder Debentures	(241)	321	n.a.	164	n.a.	(77)	274	n.a.
Derivatives ¹	(471)	563	n.a.	2	n.a.	(469)	755	n.a.
Currency and interest rate swaps	(455)	558	n.a.	(14)	3,150%	(469)	774	n.a.
Others (commodities, etc)	(16)	5	n.a.	16	n.a.	-	(19)	0%
Foreign exchange and monetary variation	(253)	(750)	-66%	(373)	-32%	(626)	(1,226)	-49%
Financial result, net	(1,252)	(157)	697%	(437)	186%	(1,689)	(687)	146%

¹ The cash effect of the derivatives was a gain of US\$ 81 million in 2Q24.

Main factors that affected net income in 2Q24 vs. 2Q23

	US\$ million	Comments
2Q23 Net income attributable to Vale's shareholders	892	
Changes to:		
Proforma EBITDA	(277)	Mainly due to higher costs and expenses, which were partially offset by higher iron ore sales.
Brumadinho and dam decharacterization	272	
Impairment & disposal of non-current assets	1,046	Result on sale of subsidiary PTVI.
EBITDA from associates and JVs	(24)	
Equity results and net income (loss) attributable to noncontrolling interests	143	
Financial results	(1,095)	BRL depreciation; decrease in marked-to-market prices of derivatives.
Income taxes	1,826	2Q23 impacted by the reversal of deferred income tax assets related to Renova Foundation provisions following the Judicial Reorganization.
Depreciation, depletion & amortization	(14)	
2Q24 Net income attributable to Vale's shareholders	2,769	

CAPEX

Growth and sustaining projects execution

US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
Growth projects	328	376	-13%	367	-11%	695	702	-1%
Iron Ore Solutions	293	255	15%	320	-8%	613	491	25%
Energy Transition Metals	33	95	-65%	39	-15%	72	167	-57%
Nickel	29	63	-54%	32	-9%	61	83	-27%
Copper	4	32	-88%	7	-43%	11	84	-87%
Energy and others	2	26	-92%	8	-75%	10	44	-77%
Sustaining projects	1,000	832	20%	1,028	-3%	2,028	1,636	24%
Iron Ore Solutions	613	472	30%	681	-10%	1,294	984	32%
Energy Transition Metals	372	326	14%	328	13%	700	589	19%
Nickel	315	282	12%	274	15%	589	486	21%
Copper	57	44	30%	54	6%	111	103	8%
Energy and others	15	34	-56%	19	-21%	34	63	-46%
Total	1,328	1,208	10%	1,395	-5%	2,723	2,338	16%

Growth projects

Investments in growth projects totaled US\$ 328 million in Q2, US\$ 48 million lower y/y due to: (i) lower expenditures with the Salobo III copper project commissioning and (ii) the deconsolidation of PTVI investments, which were partially offset by higher disbursements in the Serra Sul 120 Mtpy iron ore project.

Growth projects progress indicator²

Projects	Capex 2Q24	Financial progress ¹	Physical progress	Comments
Iron Ore Solutions				
Northern System 240 Mtpy				
Capacity: 10 Mtpy Start-up: 1H23 Capex: US\$ 772 MM	15	89%	99% ²	The railway works were completed. Tests are being conducted at the port and start-up has begun. Structural reinforcement of the mine's loading silo has pushed silo load tests to 3Q24.
Serra Sul 120 Mtpy³				
Capacity: 20 Mtpy Start-up: 2H26 Capex: US\$ 2,844 MM	130	41%	63% ⁴	The semi-mobile crushers are being put in place at the mine and the conveyor belts continue to be assembled. The transfer house, that connects the mine to the Long-Distance Conveyor Belts, is being assembled. Civil construction at the plant should be finished by 4Q24.
Capanema's Maximization				
Capacity: 18 Mtpy Start-up: 1H25 Capex: US\$ 913 MM	68	60%	83%	The assembly of equipment, crushing machinery, and structures is on schedule to be ready by Q3.
Briquettes Tubarão⁵				
Capacity: 6 Mtpy Start-up: 4Q23 (Plant 1) 1Q25 (Plant 2) Capex: US\$ 342 MM	15	82%	95%	Project scope review works were completed to improve standards and operational synergies. Plant 2 is being commissioned with start-up for 1Q25.
Energy Transition Metals				
Onça Puma 2nd Furnace				
Capacity: 12-15 ktpy Start-up: 2H25 Capex: US\$ 555 MM	30	29%	43%	The project is advancing according to plan. Detailed engineering is substantially complete, and the assembly of the 2 nd Furnace is in progress.

¹ CAPEX disbursement until end of 2Q24 vs. CAPEX expected.

² Considering physical progress of mine, plant and logistics.

³ The project consists of increasing the S11D mine-plant capacity by 20 Mtpy.

⁴ With the supplementation of the CAPEX, the project start-up has been pushed from 2H24 to 1Q25.

⁵ The project scope, CAPEX, physical progress and start-up were revised.

² Pre-Operating expenses included in the total estimated capex information, according to the approvals from Vale's Board of Directors.

Sustaining projects

Investments in sustaining our operations totaled US\$ 1.0 billion in Q2, US\$ 168 million higher y/y, mainly as a result of higher investments in equipment and asset reliability improvement projects in both the Iron Ore Solutions and the Energy Transition Metals businesses.

Sustaining projects progress indicator³

Projects	Capex 2Q24	Financial progress ¹	Physical progress	Comments
Iron Ore Solutions				
Compact Crushing S11D <i>Capacity: 50 Mtpy</i> <i>Start-up: 2H26</i> <i>Capex: US\$ 755 MM</i>	49	29%	43%	The first floor of the Primary Crushing Plant has been completed and work has begun on the second floor. Civil construction for the second crusher is progressing well. Conveyor belts of the Western Corridor were completed in 1H24 as planned.
N3 – Serra Norte <i>Capacity: 6 Mtpy</i> <i>Start-up: 2H26</i> <i>Capex: US\$ 84 MM</i>	1	19%	18%	Installation License and Vegetation Suppression Authorization are pending.
VGR 1 plant revamp³ <i>Capacity: 17 Mtpy</i> <i>Start-up: 2H24</i> <i>Capex: US\$ 67 MM</i>	6	58%	96%	Project advancing well with start-up expected in the coming months.
Energy Transition Metals				
Voisey's Bay Mine Extension <i>Capacity: 45 ktpy (Ni) and 20 ktpy (Cu)</i> <i>Start-up: 1H21²</i> <i>Capex: US\$ 2,940 MM</i>	124	92%	96%	Reid Brook activities are largely complete, with the Powerhouse planned to be fully commissioned and linked to the grid by 3Q24. Eastern Deeps mine development is concluded and work on the Bulk Material Handling system is ongoing. The full mine assets at Eastern Deeps are expected to be in operation by the end of 2024.

¹ CAPEX disbursement until end of 2Q24 vs. CAPEX expected.

² In 2Q21, Vale achieved the first ore production of Reid Brook deposit, the first of two underground mines to be developed in the project. Eastern Deeps, the second deposit, has started to extract development ore from the deposit and is continuing its scheduled production ramp-up.

³ VGR 1 is a program made up of three simultaneous projects, VGR I Waste Containment System, Water Adequacy and the VGR I Revamp, all aimed at boosting the recovery of production capacity. The progress data provided focuses on the program's main project, the VGR I Waste Containment System.

Sustaining capex by type - 2Q24

US\$ million	Iron Ore Solutions	Energy Transition Materials	Energy and others	Total
Enhancement of operations	358	182	1	541
Replacement projects	9	149	-	158
Filtration and dry stacking projects	28	-	-	28
Dam management	29	4	-	32
Other investments in dams and waste dumps	34	13	-	47
Health and Safety	48	17	2	67
Social investments and environmental protection	64	1	-	65
Administrative & Others	43	7	12	61
Total	613	372	15	1,000

³ Pre-Operating expenses included in the total estimated capex information, according to the approvals from Vale's Board of Directors

Free cash flow

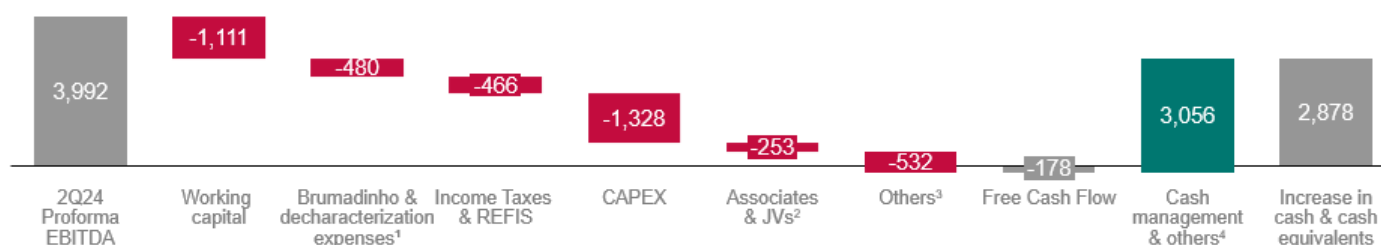
US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q
Proforma EBITDA	3,992	4,269	-6%	3,479	15%
Working capital	(1,111)	(598)	86%	1,468	n.a
Brumadinho and decharacterization expenses	(480)	(723)	-34%	(362)	33%
Income taxes and REFIS	(466)	(574)	-19%	(506)	-8%
Capex	(1,328)	(1,208)	10%	(1,395)	-5%
Associates & JVs	(253)	(229)	10%	(203)	25%
Others	(532)	(161)	230%	(481)	11%
Free Cash Flow	(178)	776	n.a	2,000	n.a
Cash management and others	3,056	(572)	n.a	(1,795)	n.a
Increase/Decrease in cash & cash equivalents	2,878	204	1311%	205	1304%

Free Cash Flow generation was US\$ 178 million negative in 2Q24, US\$ 954 million lower y/y, mainly explained by a combination of (i) negative working capital (US\$ 513 million lower y/y), (ii) lower proforma EBITDA (US\$ 277 million lower y/y) and (iii) higher capital expenditures (US\$ 120 million higher y/y).

In the quarter, the negative working capital variation was largely explained by: (i) higher concentration of payments to suppliers, (ii) higher execution of concessions contract obligations, and (iii) lower accounts receivables following the 4.3 Mt of iron ore sales accrued at the end of the quarter.

In 2Q24, Vale's cash & cash equivalents position was positively impacted by the proceeds received from Manara Minerals, following the strategic partnership at Vale Base Metals (US\$ 2.455 billion), the PTVI divestment (US\$ 155 million) and the net effect of liability management (US\$ 560 million). In the quarter, Vale disbursed US\$ 114 million to repurchase shares, as part of the 4th share buyback program.

Free Cash Flow – US\$ million, 2Q24



¹ Includes US\$ 397 million of disbursement of Brumadinho and de-characterization provisioned expenses and US\$ 83 million of Brumadinho incurred expenses.

² Related to Associates and Joint Ventures EBITDA that was included in the Proforma EBITDA.

³ Includes interest on loans, derivatives, leasing, shareholders debentures, payments related to Samarco dam failure and others.

⁴ Includes US\$ 114 million of share buyback, US\$ 2,610 million received from VBM partnership and PTVI transaction, new bonds of US\$ 1 billion and new loans of US\$ 90 million partially offset by debt repayment of US\$ 530 million.

Debt

US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q
Gross debt¹	13,770	12,417	11%	13,248	4%
Lease (IFRS 16)	1,360	1,520	-11%	1,426	-5%
Gross debt and leases	15,130	13,937	9%	14,674	3%
Cash, cash equivalents and short-term investments ²	(6,540)	(5,029)	30%	(4,569)	43%
Net debt	8,590	8,908	-4%	10,105	-15%
Currency swaps ³	(26)	(895)	-97%	(589)	-96%
Brumadinho provisions	2,412	3,276	-26%	2,894	-17%
Samarco & Renova Foundation provisions	3,707	3,401	9%	3,978	-7%
Expanded net debt	14,683	14,690	0%	16,388	-10%
Average debt maturity (years)	9.2	8.4	10%	7.5	23%
Cost of debt after hedge (% pa)	5.8	5.7	2%	5.7	2%
Total debt and leases / adjusted LTM EBITDA (x)	0.8	0.9	-11%	0.8	0%
Net debt / adjusted LTM EBITDA (x)	0.5	0.6	-17%	0.6	-17%
Adjusted LTM EBITDA / LTM gross interest (x)	23.6	24.1	-2%	24.3	-3%

¹ Does not include leases (IFRS 16).

² Includes US\$ 735 million related to non-current assets held for sale in 1Q24.

³ Includes interest rate swaps.

Gross debt and leases reached US\$ 15.1 billion as of June 30th, 2024, US\$ 0.5 billion higher q/q.

In the quarter, Vale has implemented a liability management strategy with a US\$ 1.0 billion bond offering and a US\$ 1.0 billion tender offer and redemption program. The bond offering was concluded in June and the settlement of the tender offer and redemption in July, resulting in a temporary increase in gross debt, which was partially offset by a US\$ 530 million debt repayment. In addition, Vale Canada Limited raised US\$ 90 million in borrowings in the quarter.

Expanded net debt declined by US\$ 1.7 billion q/q, totaling US\$ 14.7 billion, mainly driven by the proceeds from Vale Base Metals partnership. Vale's expanded net debt target remains at US\$ 10-20 billion.

The average debt maturity increased to 9.2 years (compared to 7.5 years at the end of 1Q24), following the 30-year maturity notes offering in June. The average annual cost of debt after currency and interest rate swaps was 5.8%, relatively flat q/q.

Performance of the business segments

Proforma Adjusted EBITDA, by business area

US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
Iron Ore Solutions	3,887	4,082	-5%	3,459	12%	7,346	7,540	-3%
Iron ore fines	3,071	3,175	-3%	2,507	22%	5,578	5,871	-5%
Pellets	724	757	-4%	882	-18%	1,606	1,449	11%
Other Ferrous Minerals	92	150	-39%	70	31%	162	220	-26%
Energy Transition Metals¹	407	476	-14%	257	58%	664	1,049	-37%
Nickel	108	235	-54%	17	535%	125	563	-78%
Copper	351	236	49%	284	24%	635	456	39%
Other	(52)	5	n.a.	(44)	18%	(96)	30	n.a.
Others^{2,3}	(302)	(289)	4%	(237)	27%	(539)	(495)	9%
Total	3,992	4,269	-6%	3,479	15%	7,471	8,094	-8%

¹ Includes adjustment of US\$ 83 million in 2Q24, US\$ 67 million in 1Q24, US\$ 150 million in 1H24, US\$ 52 million in 2Q23 and US\$ 87 million in 1H23, to reflect the performance of the streaming transactions at market prices, which will be made until the proceeds received on the streaming transactions are fully recognized in the adjusted EBITDA of the business. Based on the current projections for volumes and commodities prices, it will be fully realized by 2027. ² Including a negative y/y effect of provisions related to communities' programs, reversal of tax credit provisions, and contingency loss. ³ Includes US\$ 1 million in unallocated expenses from Vale Base Metals Ltd ("VBM") in 2Q24. Considering the unallocated expenses, VBM's EBITDA was US\$ 408 million in 2Q24.

Segment information 2Q24

US\$ million	Net operating revenues	Expenses				Associates and JVs EBITDA	Adjusted EBITDA
		Cost ¹	SG&A and others ¹	R&D ¹	Pre operating & stoppage ¹		
Iron Ore Solutions	8,298	(4,415)	(81)	(94)	(67)	246	3,887
Iron ore fines	6,729	(3,556)	(56)	(82)	(53)	89	3,071
Pellets	1,394	(705)	-	(1)	(2)	38	724
Other ferrous	175	(154)	(25)	(11)	(12)	119	92
Energy Transition Metals	1,622	(1,171)	22	(70)	(3)	7	407
Nickel ²	879	(731)	(6)	(31)	(3)	-	108
Copper ³	779	(391)	(8)	(29)	-	-	351
Other Energy Transition Metals ⁴	(36)	(49)	36	(10)	-	7	(52)
Brumadinho and dam decharacterization	-	-	1	-	-	-	1
Others⁵	-	-	(277)	(25)	-	-	(302)
Total	9,920	(5,586)	(335)	(189)	(70)	253	3,993

¹ Excluding depreciation, depletion and amortization. ² Including copper and by-products from our nickel operations. ³ Including by-products from our copper operations. ⁴ Includes an adjustment of US\$ 83 million increasing the adjusted EBITDA in 2Q24, to reflect the performance of the streaming transactions at market prices, which will be made until the proceeds received on the streaming transactions are fully recognized in the adjusted EBITDA of the business. Based on the current projections for volumes and commodities prices, it will be fully realized by 2027. ⁵ Includes US\$ 1 million in unallocated expenses from Vale Base Metals Ltd ("VBM") in 2Q24. Considering the unallocated expenses, VBM's EBITDA was US\$ 408 million in 2Q24.

Iron Ore Solutions

Selected financial indicators - Iron Ore Solutions

US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
Net Revenues	8,298	7,776	7%	7,025	18%	15,323	14,187	8%
Costs ¹	(4,415)	(3,801)	16%	(3,552)	24%	(7,967)	(6,719)	19%
SG&A and Other expenses ¹	(81)	19	n.a.	(64)	27%	(145)	(22)	559%
Pre-operating and stoppage expenses ¹	(67)	(80)	-16%	(64)	5%	(131)	(169)	-22%
R&D expenses	(94)	(61)	54%	(83)	13%	(177)	(104)	70%
EBITDA Associates & JVs	246	229	7%	197	25%	443	367	21%
Adjusted EBITDA	3,887	4,082	-5%	3,459	12%	7,346	7,540	-3%
Depreciation and amortization	(574)	(502)	14%	(481)	19%	(1,055)	(905)	17%
Adjusted EBIT	3,313	3,580	-7%	2,978	11%	6,291	6,635	-5%
Adjusted EBIT margin (%)	39.9	46.0	-6 p.p	42.4	-2 p.p	41.1	46.8	-7 p.p

¹ Net of depreciation and amortization.

Iron Ore Solutions EBITDA Variation 2Q24 vs. 2Q23

US\$ million	2Q23	Drivers			Total variation	2Q24
		Volume	Prices	Others ¹		
Iron ore fines	3,175	244	(27)	(321)	(104)	3,071
Pellets	757	5	(16)	(22)	(33)	724
Others	150	(26)	2	(34)	(58)	92
Iron Ore Solutions	4,082	223	(41)	(377)	(195)	3,887

¹ Includes the FX effect, freight, costs and expenses, associates and JV's EBITDA and others.

Iron Ore Solutions EBITDA of US\$ 3.887 billion was 5% lower y/y, mostly explained by: (i) higher iron ore fines C1 cash costs (US\$ 189 million), mainly as a result of higher third-party purchase costs and concentration of maintenance activities, in order to maximize performance in 2H24, (ii) higher freight rates (US\$ 97 million), and (iii) higher expenses (US\$ 142 million), as 2Q23 was benefited by positive one-off items. These negative effects were partially offset by a 5.4 Mt increase in iron ore sales volumes (US\$ 223 million) and the positive impact of the BRL depreciation (US\$ 74 million).

Revenues

Sales volumes by product type

'000 tons	2Q24	% total	2Q23	% total	1Q24	% total	1H24	% total	1H23	% total
Iron ore fines	68,512	86%	63,329	85%	52,546	82%	121,058	84%	109,190	84%
IOCJ	13,180	17%	13,626	18%	9,400	15%	22,581	16%	24,841	19%
BRBF	30,528	38%	32,335	43%	25,915	41%	56,443	39%	52,681	41%
Pellet feed - China (PFC1) ¹	3,337	4%	3,189	4%	2,536	4%	5,873	4%	5,821	4%
Lump	1,782	2%	1,865	3%	1,809	3%	3,591	3%	3,259	3%
High-silica products	13,767	17%	6,424	9%	8,343	13%	22,110	15%	11,960	9%
Other fines (60-62% Fe)	5,917	7%	5,889	8%	4,543	7%	10,460	7%	10,628	8%
ROM	2,416	3%	2,236	3%	2,056	3%	4,471	3%	3,900	3%
Pellets	8,864	11%	8,809	12%	9,225	14%	18,089	13%	16,942	13%
Total	79,792	100%	74,374	100%	63,826	100%	143,618	100%	130,032	100%
Share of premium products² (%)		70%		79%		74%		72%		77%

Iron Ore Solutions' prices, premiums and revenues

	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
Average prices (US\$/t)								
Iron ore - 62% Fe price	111.8	111.0	1%	123.6	-10%	117.7	118.3	0%
Iron ore - 62% Fe low alumina index	112.6	112.9	0%	124.0	-9%	118.4	120.8	-2%
Iron ore - 65% Fe index	126.1	124.2	2%	135.7	-7%	131.0	132.4	-1%
Provisional price at the end of the quarter	106.5	110.1	-3%	102.0	4%	106.5	110.1	-3%
Iron ore fines Vale CFR reference (dmt)	110.2	110.6	0%	111.9	-2%	110.9	115.3	-4%
Iron ore fines Vale CFR/FOB realized price	98.2	98.5	0%	100.7	-2%	99.3	102.7	-3%
Pellets CFR/FOB (wmt)	157.2	160.4	-2%	171.9	-9%	164.7	161.4	2%
Iron ore fines and pellets quality premium (US\$/t)								
Iron ore fines quality premium	(3.3)	0.6	n.a.	(1.6)	101%	(2.5)	(0.2)	1092%
Pellets weighted average contribution	3.1	2.8	12%	3.8	-18%	3.4	3.2	8%
Total	(0.1)	3.4	n.a.	2.2	n.a.	0.9	3.0	-70%
Net operating revenue by product (US\$ million)								
Iron ore fines	6,729	6,235	8%	5,292	27%	12,021	11,217	7%
ROM	27	34	-21%	27	0%	54	60	-10%
Pellets	1,394	1,413	-1%	1,585	-12%	2,979	2,735	9%
Others	148	94	57%	121	22%	269	175	54%
Total	8,298	7,776	7%	7,025	18%	15,323	14,187	8%

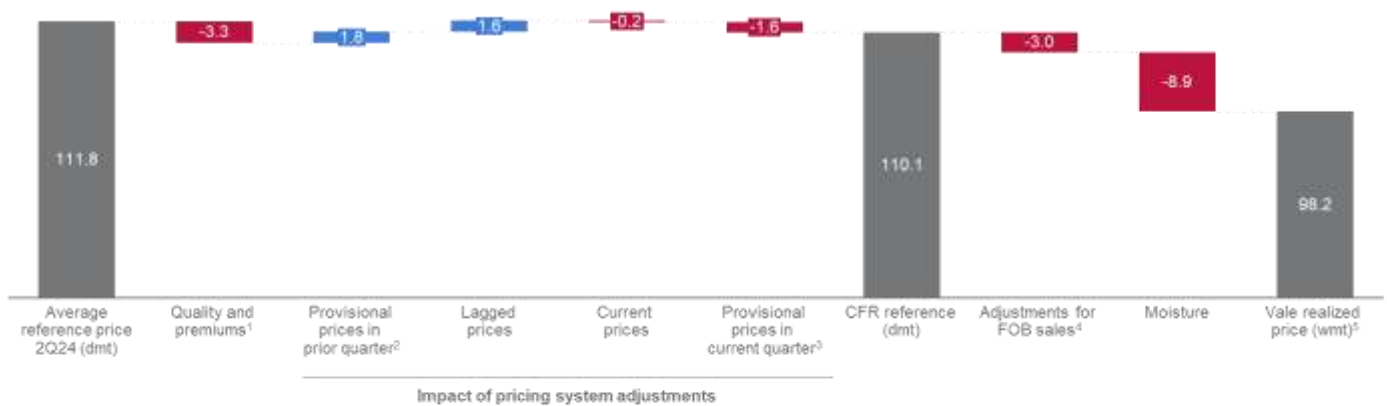
¹ Products concentrated in Chinese facilities. ² Pellets, Carajás (IOCJ), Brazilian Blend Fines (BRBF) and pellet feed.

The all-in premium totaled US\$ -0.1/t, US\$ 2.3/t lower q/q, as result of increased high-silica product sales. In the 2H24, Vale expects a larger share of premium products (e.g. IOCJ and BRBF) in the sales mix, due to higher production from the Northern System, supporting all-in premiums. The share of premium products in total sales reached 70% in Q2.

Iron ore fines, excluding Pellets and ROM

Revenues & price realization

Price realization iron ore fines – US\$/t, 2Q24



¹ Includes quality (US\$ 0.0/t) and premiums/discounts and commercial conditions (US\$ -3.2/t).

² Adjustment as a result of provisional prices booked in 1Q24 at US\$ 102.0/t.

³ Difference between the weighted average of the prices provisionally set at the end of 2Q24 at US\$ 106.5/t based on forward curves and US\$ 111.8/t from the 2Q24 average reference price.

⁴ Includes freight pricing mechanisms of CFR sales freight recognition.

⁵ Vale's price is net of taxes.

The average realized iron ore fines price was US\$ 98.2/t, US\$ 2.5/t lower q/q, largely impacted by lower iron ore prices (US\$ 11.8 lower q/q) and lower quality premiums (US\$ 1.7/t lower q/q), which were offset by the positive effect of pricing mechanisms (US\$ 11.7 higher q/q) related to provisional prices.

Iron Ore fines pricing system breakdown (%)

	2Q24	2Q23	1Q24
Lagged	15	16	14
Current	56	48	61
Provisional	29	36	25
Total	100	100	100

Costs

Iron ore fines cash cost and freight

	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
Costs (US\$ million)								
Vale's iron ore fines C1 cash cost (A)	1,935	1,676	15%	1,446	34%	3,382	2,898	17%
Third-party purchase costs ¹ (B)	409	320	28%	347	18%	755	542	39%
Vale's C1 cash cost ex-third-party volumes (C = A – B)	1,526	1,356	13%	1,100	39%	2,626	2,355	12%
Sales Volumes (Mt)								
Volume sold (ex-ROM) (D)	68.5	63.3	8%	52.5	30%	121.1	109.2	11%
Volume sold from third-party purchases (E)	7.1	5.6	27%	5.6	27%	12.8	9.1	40%
Volume sold from own operations (F = D – E)	61.4	57.8	6%	46.9	31%	108.3	100.1	8%
Iron ore fines cash cost (ex-ROM, ex-royalties), FOB (US\$ /t)								
Vale's C1 cash cost ex-third-party purchase cost (C/F)	24.9	23.5	6%	23.5	6%	24.3	23.5	3%
Average third-party purchase C1 cash cost (B/E)	57.4	57.4	0%	61.4	-6%	59.2	59.5	-1%
Vale's iron ore cash cost (A/D)	28.2	26.5	7%	27.5	3%	27.9	26.5	5%
Freight								
Maritime freight costs (G)	1,114	920	21%	860	30%	1,974	1,542	28%
% of CFR sales (H)	85%	83%	2 p.p.	85%	0 p.p.	85%	80%	5 p.p.
Volume CFR (Mt) (I = D x H)	58.5	52.3	12%	44.5	32%	103.0	87.3	18%
Vale's iron ore unit freight cost (US\$/t) (G/I)	19.0	17.6	8%	19.3	-2%	19.2	17.7	9%

¹ Includes logistics costs related to third-party purchases.

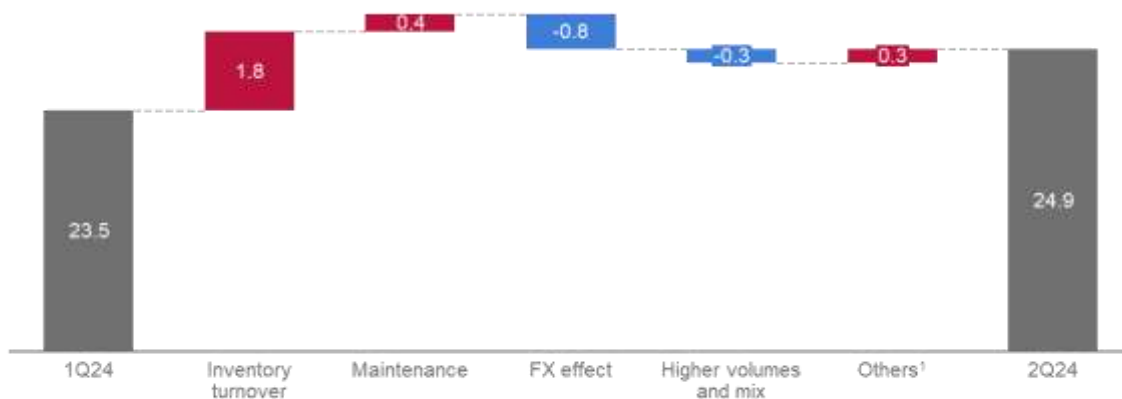
Iron ore fines C1 production costs

US\$/t	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
Vale's C1 production costs, ex-third-party purchase cost	24.4	24.2	1%	24.9	-1%	24.6	24.5	0%
Vale's C1 cash cost, ex-third-party purchase cost	24.9	23.5	6%	23.5	6%	24.3	23.5	3%

Iron ore fines COGS - 2Q24 vs. 2Q23

US\$ million	2Q23	Drivers			Total variation	2Q24
		Volume	Exchange rate	Others		
C1 cash costs	1,675	131	(42)	171	260	1,935
Freight	920	109	-	85	194	1,114
Distribution costs	157	13	-	12	25	182
Royalties & others	296	24	-	5	29	325
Total costs before depreciation and amortization	3,048	277	(42)	273	508	3,556
Depreciation	349	27	(14)	40	53	402
Total	3,397	304	(56)	313	561	3,958

C1 cash cost variation (excluding 3rd party purchases) – US\$/t, 2Q24 vs. 1Q24



¹ Including services, personal, energy, diesel, and others.

Vale's C1 cash cost, ex-third-party purchases, was 6% higher q/q, reaching US\$ 24.9/t, driven by: (i) inventory turnover, in which approximately 30% of the volumes sold in Q2 are related to higher cost products from the prior quarter, and (ii) higher maintenance costs within our asset integrity program, in order to maximize asset performance during the second semester. These effects were partially offset by (i) higher production volumes and (ii) the positive impact of the BRL depreciation. The C1 production cost in the 2Q24 was largely affected by the operational performance in April, which was impacted by rains in the Northern System. In the subsequent months, our C1 substantially improved, reaching US\$ 22/t in June.

In the 2H24, Vale expects a significant reduction in the C1 as a result of higher production, especially in the Northern System, and lower maintenance activities. Vale remains highly confident in achieving its C1 cash cost, ex-third-party purchases, guidance in 2024 (US\$ 21.5-23.0/t).

Vale's maritime freight cost slightly decreased q/q, reaching US\$ 19.0/t, US\$ 6.8/t lower than the Brazil-China C3 route average in Q2, driven by long-term affreightment contracts exposure. CFR sales totaled 58.5 Mt in Q2, representing 85% of iron ore fines sales.

Expenses

Expenses - Iron Ore fines

US\$ millions	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
SG&A	15	17	-12%	35	-57%	29	(73)	n.a.
R&D	82	57	44%	70	17%	152	96	58%
Pre-operating and stoppage expenses	53	69	-23%	51	4%	104	148	-30%
Other expenses	41	(43)	n.a.	14	193%	76	76	0%
Total expenses	191	100	91%	170	12%	361	247	46%

Iron ore pellets

Pellets – EBITDA

US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	Comments
Net revenues / Realized prices	1,394	1,413	-1%	1,585	-12%	Realized prices averaged US\$157.2/t in Q2 mainly driven by lower average benchmark prices.
Leased pelletizing plants EBITDA	38	27	41%	36	6%	
Cash costs (Iron ore, leasing, freight, overhead, energy and other)	(705)	(674)	5%	(739)	-5%	FOB sales were 66% of total sales
Pre-operational & stoppage expenses	(2)	(4)	-50%	(5)	-60%	
Expenses (Selling, R&D and other)	(1)	(5)	-80%	5	n.a.	
EBITDA	724	757	-4%	882	-18%	
EBITDA/t	82	86	-5%	96	-15%	

Iron ore fines and pellets cash break-even landed in China⁴

US\$/t	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
Vale's C1 cash cost ex-third-party purchase cost	24.9	23.5	6%	23.5	6%	24.3	23.5	3%
Third party purchases cost adjustments	3.4	3.0	13%	4.0	-15%	3.7	3.0	23%
Vale's iron ore cash cost (ex-ROM, ex-royalties), FOB (US\$ /t)	28.2	26.5	7%	27.5	3%	27.9	26.5	5%
Iron ore fines freight cost (ex-bunker oil hedge)	19.0	17.6	8%	19.3	-2%	19.2	17.7	9%
Iron ore fines distribution cost	2.6	2.5	7%	2.4	9%	2.6	2.8	-8%
Iron ore fines expenses ¹ & royalties	6.3	4.8	33%	6.7	-5%	6.4	5.5	16%
Iron ore fines moisture adjustment	4.9	4.6	7%	4.9	1%	4.9	4.7	4%
Iron ore fines quality adjustment	3.3	(0.6)	n.a.	1.6	101%	2.5	0.2	1092%
Iron ore fines EBITDA break-even (US\$/dmt)	64.3	55.4	16%	62.4	3%	63.5	57.4	11%
Iron ore fines pellet adjustment	(3.1)	(2.8)	12%	(3.8)	-18%	(3.4)	(3.2)	8%
Iron ore fines and pellets EBITDA break-even (US\$/dmt)	61.2	52.6	16%	58.6	5%	60.1	54.2	11%
Iron ore fines sustaining investments	7.9	6.9	14%	11.2	-29%	9.4	8.0	18%
Iron ore fines and pellets cash break-even landed in China (US\$/dmt)	69.1	59.5	16%	69.9	-1%	69.5	62.2	12%

¹ Net of depreciation. Including stoppage expenses.

⁴ Measured by unit cost + expenses + sustaining investment adjusted for quality. Does not include the impact from the iron ore fines and pellets pricing system mechanism.

Energy Transition Metals

Energy Transition Metals EBITDA overview – 2Q24

US\$ million	Sudbury	Voisey's Bay & Long Harbour	PTVI (site)	Standalone Refineries	Onça Puma	Sossego	Salobo	Others	Copper & Nickel	Other ETM ¹	Total Energy Transition Metals
Net Revenues	426	136	249	243	18	136	614	(164)	1,658	(36)	1,622
Costs	(390)	(204)	(168)	(222)	(27)	(90)	(301)	280	(1,122)	(49)	(1,171)
Selling and other expenses	(1)	(1)	-	-	(5)	1	(5)	(3)	(14)	36	22
Pre-operating and stoppage expenses	-	-	-	-	(3)	-	-	-	(3)	-	(3)
R&D	(19)	(7)	(2)	-	-	(3)	(2)	(27)	(60)	(10)	(70)
Associates and JVs EBITDA	-	-	-	-	-	-	-	-	-	7	7
EBITDA	16	(76)	79	21	(17)	44	306	86	459	(52)	407

¹ Includes an adjustment of US\$ 83 million increasing the adjusted EBITDA in 2Q24, to reflect the performance of the streaming transactions at market prices, which will be made until the proceeds received on the streaming transactions are fully recognized in the adjusted EBITDA of the business. Based on the current projections for volumes and commodities prices, it will be fully realized by 2027.

Copper

Selected financial indicators

US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
Net Revenues	779	538	45%	639	22%	1,418	1,062	34%
Costs ¹	(391)	(319)	23%	(329)	19%	(720)	(589)	22%
Selling and other expenses ¹	(8)	49	n.a.	(3)	167%	(11)	43	n.a.
Pre-operating and stoppage expenses ¹	-	(1)	-100%	-	-	-	(4)	-100%
R&D expenses	(29)	(31)	-6%	(23)	26%	(52)	(56)	-7%
Adjusted EBITDA	351	236	49%	284	24%	635	456	39%
Depreciation and amortization	(41)	(34)	21%	(40)	2%	(81)	(71)	14%
Adjusted EBIT	310	202	53%	244	27%	554	385	44%
Adjusted EBIT margin (%)	40%	38%	2 p.p	38%	2 p.p	39%	36%	3 p.p

¹ Net of depreciation and amortization

EBITDA variation - US\$ million (2Q24 vs. 2Q23)

US\$ million	Drivers					Total variation	2Q24
	2Q23	Volume	Prices	By-products	Others ¹		
Copper	236	7	126	48	(66)	115	351

¹ Includes variations of (i) positive US\$ 28 million in PPA, (ii) negative US\$ 103 million in costs and expenses and (iii) positive US\$ 9 million in currency variation.

EBITDA increased 49% y/y largely explained by (i) higher average realized copper prices, driven by LME reference price increase (US\$ 126 million); and (ii) the increase in copper and by-products sales volumes attributed to better operational performance at Salobo 1&2.

EBITDA by operation

US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	2Q24 vs. 2Q23 Comments
Salobo	306	218	40%	261	17%	Higher copper realized prices and volumes and higher by-products revenues.
Sossego	44	17	159%	17	159%	Higher copper realized prices.
Others copper ¹	1	1	0%	6	-83%	
Total	351	236	49%	284	24%	

¹ Includes US\$ 25 million in R&D expenses related to the Hu'u project in 2Q24 and the unrealized provisional price adjustments.

Revenues & price realization

Sales volumes, revenues & price realization

US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
Volume sold ('000 metric tons)								
Copper	58	53	9%	56	4%	115	96	20%
Gold as by-product ('000 oz)	89	77	16%	85	5%	173	137	26%
Silver as by-product ('000 oz)	242	242	-	188	29%	430	411	5%
Average prices (US\$/t)								
Average LME copper price	9,753	8,464	15%	8,438	16%	9,090	8,703	4%
Average copper realized price	9,202	7,025	31%	7,687	20%	8,456	8,123	4%
Gold (US\$/oz) ¹	2,361	2,103	12%	2,083	13%	2,225	1,983	12%
Silver (US\$/oz)	27	26	4%	24	13%	26	24	8%
Net revenue (US\$ million)								
Copper	535	371	44%	434	23%	969	779	24%
Gold as by-product ¹	209	161	30%	176	19%	386	274	41%
Silver as by-product	7	6	17%	4	75%	11	10	10%
Total	751	538	40%	615	22%	1,366	1,062	29%
PPA adjustments ²	28	-	n.a.	24	17%	52	-	n.a.
Net revenue after PPA adjustments	779	538	45%	639	22%	1,418	1,062	34%

¹ Revenues presented above were adjusted to reflect the market prices of products delivered related to the streaming transactions. ² PPA adjustments to be disclosed separately from 1Q24 onwards. On June 30th, 2024, Vale had provisionally priced copper sales from Sossego and Salobo totaling 45,587 tons valued at weighted average LME forward price of US\$ 9,514/t, subject to final pricing over the following months.

Price realization – copper operations

US\$/t	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
Average LME copper price	9,753	8,464	15%	8,438	16%	9,090	8,703	4%
Current period price adjustments ¹	(204)	(257)	-21%	(20)	905%	(98)	(70)	41%
Copper gross realized price	9,549	8,207	16%	8,418	13%	8,992	8,633	4%
Prior period price adjustments ²	125	(638)	n.a.	(210)	n.a.	(40)	22	n.a.
Copper realized price before discounts	9,674	7,569	28%	8,208	18%	8,953	8,655	3%
TC/RCs, penalties, premiums and discounts ³	(472)	(544)	-13%	(522)	-10%	(496)	(532)	-7%
Average copper realized price	9,202	7,025	31%	7,687	20%	8,456	8,123	4%

Note: Vale's copper products are sold on a provisional pricing basis, with final prices determined in a future period. The average copper realized price excludes the mark-to-market of open invoices based on the copper price forward curve (unrealized provisional price adjustments) and includes the prior and current period price adjustments (realized provisional price adjustments).

¹ Current-period price adjustments: Final invoices that were provisionally priced and settled within the quarter. ² Prior-period price adjustment: Final invoices of sales provisionally priced in prior quarters. ³ TC/RCs, penalties, premiums, and discounts for intermediate products.

The average realized copper price was up 4% y/y and 20% q/q mainly due to higher average LME copper price.

Costs

COGS - 2Q24 vs. 2Q23

US\$ million	Drivers					2Q24
	2Q23	Volume	Exchange rate	Others	Total variation	
Copper operations	319	32	(12)	52	72	391
Depreciation	33	3	(1)	6	8	41
Total	352	35	(13)	58	80	432

Copper operations – unit cash cost of sales, net of by-product credits

US\$/t	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	2Q24 vs. 2Q23 Comments
Salobo	2,319	2,246	3%	1,738	33%	Higher maintenance costs largely offset by higher by-products credits.
Sossego	5,652	4,705	20%	5,844	-3%	Higher maintenance costs.

EBITDA break-even (“all-in” costs)

US\$/t	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
COGS	6,726	6,046	11%	5,829	15%	6,285	6,141	2%
By-product revenues	(3,714)	(3,177)	17%	(3,207)	16%	(3,465)	(2,946)	18%
COGS after by-product revenues	3,012	2,869	5%	2,622	15%	2,820	3,194	-12%
Other expenses ¹	168	(301)	n.a.	149	13%	158	(6)	n.a.
Total costs	3,180	2,568	24%	2,771	15%	2,978	3,188	-7%
TC/RCS penalties, premiums and discounts	472	544	-13%	522	-10%	496	532	-7%
EBITDA breakeven^{2,3}	3,651	3,112	17%	3,293	11%	3,474	3,720	-7%

¹ Includes sales expenses, R&D associated with Salobo and Sossego, pre-operating and stoppage expenses and other expenses. From 1Q24 onwards, excludes Hu'u. ² Considering only the cash effect of streaming transactions, copper operations EBITDA break-even would increase to US\$ 4,937/t. ³ The realized price to be compared to the EBITDA break-even should be the copper realized price before discounts (US\$ 8,208/t), given that TC/RCS, penalties, and other discounts are already part of the EBITDA break-even build-up.

Unit COGS have increased by 11% y/y mainly reflecting the increase in fixed costs related to the maintenance performed at both Salobo and Sossego operations.

All-in costs have increased by 17%, primarily due to: (i) increase in unit COGS; and (ii) the absence of one-off tax credits that positively impacted 2Q23. These effects were partially offset by higher by-products credits, reflecting the higher proportion of Salobo copper concentrate volumes in the sales mix.

Copper all-in costs averaged US\$ 3,474/t in 1H24, representing a 7% decrease y/y, and below the current market guidance for 2024 (US\$ 4,000-4,500/t).

Nickel

Selected financial indicators

US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
Net Revenues	879	1,222	-28%	836	5%	1,715	2,543	-33%
Costs ¹	(731)	(886)	-17%	(773)	-5%	(1,504)	(1,835)	-18%
Selling and other expenses ¹	(6)	(72)	-92%	(24)	-75%	(30)	(89)	-66%
Pre-operating and stoppage expenses ¹	(3)	-	n.a.	(1)	200%	(4)	-	n.a.
R&D expenses	(31)	(29)	7%	(21)	48%	(52)	(56)	-7%
Adjusted EBITDA	108	235	-54%	17	535%	125	563	-78%
Depreciation and amortization	(187)	(229)	-18%	(184)	2%	(371)	(432)	-14%
Adjusted EBIT	(79)	6	n.a.	(167)	-53%	(246)	563	n.a.
Adjusted EBIT margin (%)	-9.0%	0.5%	-10 p.p	-20.0%	11 p.p	-14.3%	22.2%	-37 p.p

¹ Net of depreciation and amortization.

EBITDA variation - US\$ million (2Q24 vs. 2Q23)

US\$ million	2Q23	Drivers				Total variation	2Q24
		Volume	Prices	By-products	Others ¹		
Nickel	235	(8)	(152)	(48)	81	(127)	108

¹ Includes variations of (i) US\$ 19 million in PPA; (ii) US\$ 53 million in inventory write-down in 2Q23 and (iii) US\$ 9 million in others.

EBITDA decreased 54% y/y largely explained by (i) the 19% decrease in realized nickel prices, driven by lower LME prices; and (ii) lower nickel and by-products volumes mainly reflecting the planned maintenance strategy at the nickel processing plants.

EBITDA by operations

US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	2Q24 vs. 2Q23 Comments
Sudbury ¹	16	168	-90%	63	-75%	Higher unit costs and lower nickel prices and volumes.
Voisey's Bay & Long Harbour	(76)	(130)	-42%	(34)	124%	Lower third-party feed prices and volumes. 2Q23 was affected by the inventories write-down.
Standalone Refineries ²	21	20	5%	(6)	n.a	Lower costs offset lower nickel prices.
PTVI	79	123	-36%	58	36%	Lower nickel prices partially offset by lower costs.
Onça Puma	(17)	17	n.a	(46)	-63%	Stoppage costs and lower sales volumes due to the ramp-up after furnace rebuild works.
Others ³	85	37	130%	(18)	n.a	
Total	108	235	-54%	17	500%	

¹ Includes the Thompson operations. ² Comprises the sales results for Clydach and Matsusaka refineries. ³ Includes intercompany eliminations, provisional price adjustments and inventories adjustments. Hedge results have been relocated to each nickel business operation.

Revenues & price realization

Sales volumes, revenues & price realization

	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
Volume sold ('000 metric tons)								
Nickel	34	40	-15%	33	4%	67	80	-16%
Copper	18	21	-14%	20	-10%	38	41	-7%
Gold as by-product ('000 oz)	9	11	-18%	12	-25%	21	22	-5%
Silver as by-product ('000 oz)	206	276	-25%	245	-16%	451	513	-12%
PGMs ('000 oz)	38	89	-57%	73	-48%	110	163	-33%
Cobalt (metric ton)	320	660	-52%	465	-31%	785	1,281	-39%

contd

Sales volumes, revenues & price realization (contd.)

	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
Average realized prices (US\$/t)								
Nickel	18,638	23,070	-19%	16,848	11%	17,729	24,162	-27%
Copper	9,137	6,888	33%	7,482	22%	8,256	7,870	5%
Gold (US\$/oz)	2,435	1,931	26%	2,051	19%	2,216	1,923	15%
Silver (US\$/oz)	28.2	22.2	27%	22.6	25%	25.2	22.3	13%
Cobalt	28,258	34,694	-19%	30,500	-7%	29,586	33,040	-10%
Net revenue by product (US\$ million)								
Nickel	639	930	-31%	557	15%	1,195	1,943	-38%
Copper	164	145	13%	153	7%	317	319	-1%
Gold as by-product ¹	22	21	5%	24	-8%	46	42	10%
Silver as by-product	6	6	0%	6	0%	11	11	-
PGMs	38	85	-55%	68	-44%	106	160	-34%
Cobalt ¹	9	23	-61%	14	-36%	23	43	-47%
Others	5	12	-58%	10	-50%	15	25	-40%
Total	882	1,222	-28%	832	6%	1,714	2,543	-33%
PPA adjustments ²	(3)	n.a	n.a.	3	n.a.	1	n.a	n.a.
Net revenue after PPA adjustments	879	1,222	-28%	835	5%	1,715	2,543	-33%

¹ Revenues presented above were adjusted to reflect the market prices of products delivered related to the streaming transactions. ² PPA adjustments started to disclose separately in 1Q24.

Breakdown of nickel volumes sold

'000 tons	2Q24	% total	2Q23	% total	1Q24	% total	1H24	% total	1H23	% total
Upper Class I nickel	19.0	56%	22.7	56%	20.8	63%	39.8	59%	46.5	58%
- of which: EV Battery	0.8	2%	0.6	1%	0.8	2%	1.6	2%	2.2	3%
Lower Class I nickel	3.9	11%	4.5	11%	3.5	11%	7.4	11%	8.5	11%
Class II nickel	6.6	19%	9.7	24%	4.4	13%	11.0	16%	17.8	22%
Intermediates	4.7	14%	3.5	9%	4.5	13%	9.2	14%	7.5	9%
Total	34.3	100%	40.3	100%	33.1	100%	67.4	100%	80.4	100%

Product type by operation

Sales mix	North Atlantic ¹	Matsusaka	PTVI	Onça Puma
Upper Class I	77.5%	-	-	-
Lower Class I	16.0%	-	-	-
Class II	3.2%	98.7%	-	49%
Intermediates	3.3%	1.3%	100%	51%

Realized price and premium

	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
Nickel realized price (US\$/t)								
LME average nickel price	18,415	22,308	-17%	16,589	11%	17,495	24,205	-28%
Average nickel realized price	18,638	23,070	-19%	16,848	11%	17,758	24,160	-26%
Contribution to the nickel realized price by category:								
Nickel average aggregate (premium/discount)	319	170	88%	515	-38%	415	55	655%
Other timing and pricing adjustments contributions ¹	(97)	94	-203%	(256)	-62%	(152)	(99)	54%
Premium/discount by product (US\$/t)								
Upper Class I nickel	1,260	1,820	-31%	1,210	4%	1,231	1,682	-27%
Lower Class I nickel	610	1,250	-51%	650	-6%	627	1,294	-52%
Class II nickel	290	(2,340)	-112%	750	-61%	475	(2,535)	-119%
Intermediates	(3,650)	(4,930)	-26%	(3,060)	-19%	(3,360)	(5,268)	-36%

¹ Comprises (i) the realized quotational period effects (based on sales distribution in the prior three months, as well as the differences between the LME price at the moment of sale and the LME average price), with a negative impact of US\$89/t and (ii) fixed-price sales, with a negative impact of US\$7/t.

The average realized nickel price was US\$ 18,638/t, down 19% y/y, mainly due to the 17% decrease in the average LME nickel price. On a sequential basis, the realized nickel price was up 11% in line with the increase in LME prices. In 2Q24, the average realized nickel price was 1.2% higher than the LME average, mainly due to the 67% share of Class I products in the mix, at an average combined premium of US\$ 1,145/t.

Costs

Nickel COGS - 2Q24 vs. 2Q23

US\$ million	2Q23	Drivers			Total variation	2Q24
		Volume	Exchange rate	Others		
Nickel operations	886	(135)	(27)	7	(155)	731
Depreciation	221	(33)	(7)	(3)	(43)	178
Total	1,107	(168)	(34)	4	(198)	909

Unit cash cost of sales by operation, net of by-product credits

US\$/t	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	2Q24 vs. 2Q23 Comments
Sudbury ^{1,2}	15,219	11,737	30%	10,638	43%	Higher maintenance costs and lower fixed cost dilution due to the biennial planned maintenance partially offset by better mine performance.
Voisey's Bay & Long Harbour ²	31,114	34,713	-10%	21,323	46%	Lower 3rd party feed volumes and prices.
Standalone refineries ^{2,3}	17,663	22,999	-23%	18,617	-5%	Lower feed acquisition costs from PTVI.
PTVI ⁴	9,590	10,297	-7%	9,371	2%	Lower fuel costs.
Onça Puma	21,705	11,623	87%	n.a.	n.a.	Lower fixed cost dilution due to the ramp-up after the furnace rebuild.

¹ Sudbury costs include Thompson costs. ² A large portion of Sudbury, Clydach, Matsusaka and Long Harbour finished nickel production is derived from intercompany transfers, as well as from the purchase of ore or nickel intermediates from third parties. These transactions are valued at fair market value. ³ Comprises the unit cash costs for Clydach and Matsusaka refineries. ⁴ Refers to nickel matte production cost.

EBITDA break-even ("all-in" costs)

US\$/t	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
COGS ex. 3rd-party feed	20,755	21,135	-2%	22,418	-7%	21,573	21,766	-1%
COGS ¹	21,306	21,969	-3%	22,291	-4%	21,790	22,807	-4%
By-product revenues ¹	(7,097)	(7,232)	-2%	(8,304)	-15%	(7,690)	(7,460)	3%
COGS after by-product revenues	14,210	14,737	-4%	13,987	2%	14,100	15,348	-8%
Other expenses ²	1,109	2,516	-56%	1,306	-15%	1,200	1,820	-34%
Total Costs	15,319	17,253	-11%	15,293	0%	15,300	17,168	-11%
Nickel average aggregate (premium) discount	(319)	(170)	88%	(515)	-38%	(415)	(55)	655%
EBITDA breakeven³	15,000	17,083	-12%	14,778	2%	14,885	17,113	-13%

¹ Excluding marketing activities. ² Includes R&D, sales expenses and pre-operating & stoppage. ³ Considering only the cash effect of streaming transactions, nickel operations EBITDA break-even would increase to US\$ 15,108/t in 2Q24.

Unit COGS, excluding 3rd-party feed purchases, were 2% lower y/y, driven by lower unit costs at PTVI. Also, better performance at the mines, which drove unit costs down and lower spend at the mill, have partially offset the increase in maintenance costs especially in Sudbury operations.

All-in costs have decreased by 12% y/y, primarily due to: (i) lower 3rd-party feed purchase costs driven by both lower consumption and lower nickel prices; (ii) lower expenses, as 2Q23 was impacted by the write-down of high-cost inventories related to Voisey's Bay and Long Harbour operations; and (iii) higher nickel aggregate price premium. These effects have offset the increase in fixed cost due to the biennial planned maintenance in Sudbury.

WEBCAST INFORMATION

Vale will host a webcast on Friday July 26th, 2024, at 11:00 a.m. Brasilia time (10:00 a.m. New York time; 3:00 p.m. London time). Internet access to the webcast and presentation materials will be available on Vale website at www.vale.com/investors. A webcast replay will be accessible at www.vale.com beginning shortly after the completion of the call.

Further information on Vale can be found at: vale.com

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Except where otherwise indicated, the operational and financial information in this release is based on the consolidated figures in accordance with IFRS. Our quarterly financial statements are reviewed by the company's independent auditors. The main subsidiaries that are consolidated are the following: Companhia Portuária da Baía de Sepetiba, Vale Manganês S.A., Minerações Brasileiras Reunidas S.A., Vale Base Metals Ltd., Tecnoed Desenvolvimento Tecnológico S.A., Vale Holdings B.V, Vale Canada Limited, Vale International S.A., Vale Malaysia Minerals Sdn. Bhd., Vale Oman Pelletizing Company LLC e Vale Oman Distribution Center LLC.

This press release may include statements about Vale's current expectations about future events or results (forward-looking statements). Many of those forward-looking statements can be identified by the use of forward-looking words such as „anticipate,” „believe,” „could,” „expect,” „should,” „plan,” „intend,” „estimate” “will” and „potential,” among others. All forward-looking statements involve various risks and uncertainties. Vale cannot guarantee that these statements will prove correct. These risks and uncertainties include, among others, factors related to: (a) the countries where Vale operates, especially Brazil and Canada; (b) the global economy; (c) the capital markets; (d) the mining and metals prices and their dependence on global industrial production, which is cyclical by nature; and (e) global competition in the markets in which Vale operates. Vale cautions you that actual results may differ materially from the plans, objectives, expectations, estimates and intentions expressed in this presentation. Vale undertakes no obligation to publicly update or revise any forward-looking statement, whether as a result of new information or future events or for any other reason. To obtain further information on factors that may lead to results different from those forecast by Vale, please consult the reports that Vale files with the U.S. Securities and Exchange Commission (SEC), the Brazilian Comissão de Valores Mobiliários (CVM) and, in particular, the factors discussed under “Forward-Looking Statements” and “Risk Factors” in Vale's annual report on Form 20-F.

The information contained in this press release includes financial measures that are not prepared in accordance with IFRS. These non-IFRS measures differ from the most directly comparable measures determined under IFRS, but we have not presented a reconciliation to the most directly comparable IFRS measures, because the non-IFRS measures are forward-looking and a reconciliation cannot be prepared without unreasonable effort.

Annexes

Simplified financial statements

Income Statement

US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
Net operating revenue	9,920	9,673	3%	8,459	17%	18,379	18,107	2%
Cost of goods sold and services rendered	(6,349)	(5,940)	7%	(5,367)	18%	(11,716)	(10,889)	8%
Gross profit	3,571	3,733	-4%	3,092	15%	6,663	7,218	-8%
Gross margin (%)	36.0	38.6	-3 p.p.	36.6	-1 p.p.	36.3	39.9	-4 p.p.
Selling and administrative expenses	(137)	(139)	-1%	(140)	-2%	(277)	(257)	8%
Research and development expenses	(189)	(165)	15%	(156)	21%	(345)	(304)	13%
Pre-operating and operational stoppage	(91)	(103)	-12%	(92)	-1%	(183)	(227)	-19%
Other operational expenses, net	(289)	(388)	-26%	(250)	16%	(539)	(607)	-11%
Impairment reversal (impairment and disposals) of non-current assets, net	1,010	(66)	n.a.	(6)	n.a.	1,004	(70)	n.a.
Operating income	3,875	2,872	35%	2,448	58%	6,323	5,753	10%
Financial income	78	106	-26%	109	-28%	187	227	-18%
Financial expenses	(365)	(397)	-8%	(339)	8%	(704)	(717)	-2%
Other financial items, net	(965)	134	n.a.	(207)	366%	(1,172)	(197)	495%
Equity results and other results in associates and joint ventures	112	5	2140%	124	-10%	236	(50)	-572%
Income before income taxes	2,735	2,720	1%	2,135	28%	4,870	5,016	-3%
Current tax	(638)	(404)	58%	(734)	-13%	(1,372)	(622)	121%
Deferred tax	672	(1,388)	n.a.	286	135%	958	(1,588)	n.a.
Net income	2,769	928	198%	1,687	64%	4,456	2,806	59%
Net income (loss) attributable to noncontrolling interests	-	36	-100%	8	-100%	8	77	-90%
Net income attributable to Vale's shareholders	2,769	892	210%	1,679	65%	4,448	2,729	63%
Net income	2,769	928	198%	1,687	64%	4,456	2,806	59%
Net income (Loss) attributable to Vale's to noncontrolling interests	-	36	-100%	8	-100%	8	77	-90%
Net income attributable to Vale's shareholders	2,769	892	210%	1,679	65%	4,448	2,729	63%
Earnings per share (attributable to the Company's shareholders - US\$):								
Basic and diluted earnings per share (attributable to the Company's shareholders - US\$)	0.65	0.20	225%	0.39	67%	1.04	0.62	68%

Equity income (loss) by business segment

US\$ million	2Q24	%	2Q23	%	Δ y/y	1Q24	%	Δ q/q	1H24	%	1H23	%	Δ y/y
Iron Ore Solutions	109	95	89	91	22%	58	89	88%	167	93	(7)	(170)	n.a.
Energy Transition Metals	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	6	5	9	9	-33%	7	11	-14%	13	7	17	70	-24%
Total	115	100	98	100	17%	65	100	77%	180	100	10	100	1700%

Balance sheet

US\$ million	6/30/2024	6/30/2023	Δ y/y	3/31/2024	Δ q/q
Assets					
Current assets	14,829	15,547	-5%	17,528	-15%
Cash and cash equivalents	6,479	4,983	30%	3,790	71%
Short term investments	61	46	33%	44	39%
Accounts receivable	2,332	2,967	-21%	2,233	4%
Other financial assets	168	522	-68%	420	-60%
Inventories	4,793	5,193	-8%	5,195	-8%
Recoverable taxes	659	1,502	-56%	840	-22%
Judicial deposits	-	-	-	672	n.a.
Other	337	334	1%	364	-7%
Non-current assets held for sale	-	-	-	3,970	-100%
Non-current assets	13,294	14,402	-8%	13,446	-1%
Judicial deposits	585	1,326	-56%	669	-13%
Other financial assets	160	698	-77%	336	-52%
Recoverable taxes	1,329	1,229	8%	1,384	-4%
Deferred income taxes	9,931	9,904	0%	9,699	2%
Other	1,289	1,245	4%	1,358	-5%
Fixed assets	58,492	61,568	-5%	60,703	-4%
Total assets	86,615	91,517	-5%	91,677	-6%
Liabilities					
Current liabilities	13,743	13,556	1%	15,676	-12%
Suppliers and contractors	4,769	5,240	-9%	5,546	-14%
Loans, borrowings and leases	910	713	28%	1,286	-29%
Leases	177	199	-11%	192	-8%
Other financial liabilities	1,467	1,599	-8%	1,708	-14%
Taxes payable	1,242	882	41%	1,698	-27%
Settlement program ("REFIS")	383	416	-8%	492	-22%
Provisions for litigation	115	121	-5%	117	-2%
Employee benefits	724	728	-1%	602	20%
Liabilities related to associates and joint ventures	1,605	1,044	54%	923	74%
Liabilities related to Brumadinho	974	1,201	-19%	1,063	-8%
Dam decharacterization and asset retirement obligations	956	899	6%	1,045	-9%
Other	421	514	-18%	464	-9%
Liabilities associated with non-current assets held for sale	-	-	-	540	-100%
Non-current liabilities	34,485	37,670	-8%	36,988	-7%
Loans, borrowings and leases	12,860	11,704	10%	11,962	8%
Leases	1,183	1,321	-10%	1,234	-4%
Participative shareholders' debentures	2,451	2,528	-3%	2,621	-6%
Other financial liabilities	2,656	2,771	-4%	3,043	-13%
Settlement program (REFIS)	1,284	1,886	-32%	1,515	-15%
Deferred income taxes	806	1,411	-43%	848	-5%
Provisions for litigation	765	1,347	-43%	885	-14%
Employee benefits	1,221	1,353	-10%	1,288	-5%
Liabilities related to associates and joint ventures	2,102	2,575	-18%	3,267	-36%
Liabilities related to Brumadinho	1,438	2,075	-31%	1,831	-21%
Dam decharacterization and asset retirement obligations	5,484	6,786	-19%	6,261	-12%
Streaming transactions	1,948	1,693	15%	1,956	0%
Others	287	220	30%	277	4%
Total liabilities	48,228	51,226	-6%	52,664	-8%
Shareholders' equity	38,387	40,291	-5%	39,013	-2%
Total liabilities and shareholders' equity	86,615	91,517	-5%	91,677	-6%

Cash flow

US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q
Cash flow from operations	2,353	3,259	-28%	4,479	-47%
Interest on loans and borrowings paid	(211)	(200)	5%	(186)	13%
Cash received on settlement of Derivatives, net	81	134	-40%	43	88%
Payments related to Brumadinho	(265)	(497)	-47%	(135)	96%
Payments related to dam decharacterization	(132)	(95)	39%	(119)	11%
Interest on participative shareholders debentures paid	(149)	(127)	17%	-	n.a.
Income taxes (including settlement program) paid	(466)	(574)	-19%	(506)	-8%
Net cash generated by operating activities	1,211	1,900	-36%	3,576	-66%
Cash flow from investing activities					
Short-term investment	28	67	-58%	(44)	n.a.
Capital expenditures	(1,328)	(1,208)	10%	(1,395)	-5%
Payments related to Samarco dam failure	(105)	(31)	239%	(86)	22%
Dividends received from joint ventures and associates	39	105	-63%	3	1200%
Cash received from disposal of investments, net	2,610	-	n.a.	-	-
Other investment activities, net	(4)	-	n.a.	3	-
Net cash used in investing activities	1,240	(1,067)	n.a.	(1,519)	n.a.
Cash flow from financing activities					
Loans and financing:					
Loans and borrowings from third parties	1,090	1,500	-27%	870	25%
Payments of loans and borrowings from third parties	(530)	(581)	-9%	(62)	755%
Payments of leasing	(44)	(45)	-2%	(41)	7%
Payments to shareholders:					
Dividends and interest on capital paid to Vale's shareholders	-	-	0%	(2,328)	-100%
Dividends and interest on capital paid to noncontrolling interest	-	(5)	-100%	-	0%
Share buyback program	(114)	(1,361)	-92%	(275)	-59%
Acquisition of additional stake in subsidiaries	-	(130)	-100%	-	0%
Net cash used in financing activities	402	(622)	-165%	(1,836)	n.a.
Net increase (decrease) in cash and cash equivalents	2,853	211	1252%	221	1191%
Cash and cash equivalents in the beginning of the period	3,790	4,705	-19%	3,609	5%
Effect of exchange rate changes on cash and cash equivalents	(164)	67	n.a.	(40)	310%
Cash and cash equivalents at the end of period	6,479	4,983	30%	3,790	71%
Non-cash transactions:					
Additions to property, plant and equipment - capitalized loans and borrowing costs	8	5	60%	5	60%
Cash flow from operating activities					
Income before income taxes	2,735	2,720	1%	2,135	28%
Adjusted for:					
Review of estimates related to Brumadinho	(14)	140	-	(6)	133%
Review of estimates for dam decharacterization	(70)	-	n.a.	(61)	15%
Equity results and other results in associates and joint ventures	(112)	(5)	2140%	(124)	-10%
Impairment (impairment reversal) and results on disposal of non-current assets, net	(1,010)	66	n.a.	6	n.a.
Depreciation, depletion and amortization	793	779	2%	714	11%
Financial results, net	1,252	157	697%	437	186%
Change in assets and liabilities					
Accounts receivable	(167)	(247)	-32%	1,935	-109%
Inventories	165	(157)	n.a.	(626)	n.a.
Suppliers and contractors	(528)	570	n.a.	378	n.a.
Other assets and liabilities, net	(691)	(764)	-10%	(309)	124%
Cash flow from operations	2,353	3,259	-28%	4,479	-47%

Reconciliation of IFRS and “non-GAAP” information

(a) Adjusted EBIT

US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q
Net operating revenues	9,920	9,673	3%	8,459	17%
COGS	(6,349)	(5,940)	7%	(5,367)	18%
Sales and administrative expenses	(137)	(139)	-1%	(140)	-2%
Research and development expenses	(189)	(165)	15%	(156)	21%
Pre-operating and stoppage expenses	(91)	(103)	-12%	(92)	-1%
Brumadinho and dam decharacterization	1	(271)	n.a.	(41)	n.a.
Other operational expenses, net ¹	(208)	(65)	220%	(142)	46%
EBITDA from associates and JVs	253	229	10%	203	25%
Adjusted EBIT	3,200	3,219	-1%	2,724	17%

¹ Includes adjustment of US\$ 83 million in 2Q24, US\$ 67 million in 1Q24, US\$ 150 million in 1H24, US\$ 52 million in 2Q23 and US\$ 87 million in 1H23, to reflect the performance of the streaming transactions at market price.

(b) Adjusted EBITDA

EBITDA defines profit or loss before interest, tax, depreciation, depletion and amortization. The definition of Adjusted EBITDA for the Company is the operating income or loss plus dividends received and interest from associates and joint ventures, and excluding the amounts charged as (i) depreciation, depletion and amortization and (ii) impairment reversal (impairment and disposals) of non-current assets. However, our adjusted EBITDA is not the measure defined as EBITDA under IFRS and may possibly not be comparable with indicators with the same name reported by other companies. Adjusted EBITDA should not be considered as a substitute for operational profit or as a better measure of liquidity than operational cash flow, which are calculated in accordance with IFRS. Vale provides its adjusted EBITDA to give additional information about its capacity to pay debt, carry out investments and cover working capital needs. The following tables shows the reconciliation between adjusted EBITDA and operational cash flow and adjusted EBITDA and net income, in accordance with its statement of changes in financial position.

The definition of Adjusted EBIT is Adjusted EBITDA plus depreciation, depletion and amortization.

Reconciliation between adjusted EBITDA and operational cash flow

US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q
Adjusted EBITDA	3,993	3,998	0%	3,438	16%
Working capital:					
Accounts receivable	(167)	(247)	-32%	1,935	n.a.
Inventories	165	(157)	n.a.	(626)	n.a.
Suppliers and contractors	(528)	570	n.a.	378	n.a.
Review of estimates related to Brumadinho	(14)	140	n.a.	(6)	133%
Review of estimates related to dam decharacterization	(70)	-	n.a.	(61)	15%
Others	(1,026)	(1,045)	-2%	(579)	77%
Cash flow	2,353	3,259	-28%	4,479	-47%
Income taxes paid (including settlement program)	(466)	(574)	-19%	(506)	-8%
Interest on loans and borrowings paid	(211)	(200)	5%	(186)	13%
Payments related to Brumadinho event	(265)	(497)	-47%	(135)	96%
Payments related to dam decharacterization	(132)	(95)	39%	(119)	11%
Interest on participative shareholders' debentures paid	(149)	(127)	-	-	n.a.
Cash received on settlement of Derivatives, net	81	134	-40%	43	88%
Net cash generated by operating activities	1,211	1,900	-36%	3,576	-66%

Reconciliation between adjusted EBITDA and net income (loss)

US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q
Adjusted EBITDA	3,993	3,998	0%	3,438	16%
Depreciation, depletion and amortization	(793)	(779)	2%	(714)	11%
EBITDA from associates and joint ventures	(253)	(229)	10%	(203)	25%
Impairment reversal (impairment) and results on disposals of non-current assets, net ¹	928	(118)	n.a.	(73)	n.a.
Operating income	3,875	2,872	35%	2,448	58%
Financial results	(1,252)	(157)	697%	(437)	186%
Equity results and other results in associates and joint ventures	112	5	2140%	124	-10%
Income taxes	34	(1,792)	n.a.	(448)	n.a.
Net income	2,769	928	198%	1,687	64%
Net income (loss) attributable to noncontrolling interests	-	36	-100%	8	-100%
Net income attributable to Vale's shareholders	2,769	892	210%	1,679	65%

¹ Includes adjustment of US\$ 83 million in 2Q24, US\$ 67 million in 1Q24, US\$ 150 million in 1H24, US\$ 52 million in 2Q23 and US\$ 87 million in 1H23, to reflect the performance of the streaming transactions at market price.

(c) Net debt

US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q
Gross debt	13,770	12,417	11%	13,248	4%
Leases	1,360	1,520	-11%	1,426	-5%
Cash and cash equivalents ¹	(6,540)	(5,029)	30%	(4,569)	43%
Net debt	8,590	8,908	-4%	10,105	-15%

¹ Includes US\$ 735 million related to non-current assets held for sale in 1Q24 due to the PTVI divestment.

(d) Gross debt / LTM Adjusted EBITDA

US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q
Gross debt and leases / LTM Adjusted EBITDA (x)	0.8	0.9	-11%	0.8	-2%
Gross debt and leases / LTM operational cash flow (x)	0.8	0.8	0%	0.9	-6%

(e) LTM Adjusted EBITDA / LTM interest payments

US\$ million	2Q24	2Q23	Δ y/y	1Q24	Δ q/q
Adjusted LTM EBITDA / LTM gross interest (x)	23.6	24.1	-2%	24.3	-3%
LTM adjusted EBITDA / LTM interest payments (x)	26.2	20.1	30%	23.5	12%

(f) US dollar exchange rates

R\$/US\$	2Q24	2Q23	Δ y/y	1Q24	Δ q/q
Average	5.2129	4.9485	5%	4.9515	5%
End of period	5.5589	4.8192	15%	4.9962	11%

Revenues and volumes

Net operating revenue by destination

US\$ million	2Q24	%	2Q23	%	Δ y/y	1Q24	%	Δ q/q	1H24	%	1H23	%	Δ y/y
North America	435	4.4	554	5.7	-21%	427	5.0	2%	862	4.7	1,207	6.7	-29%
USA	254	2.6	431	4.5	-41%	243	2.9	5%	497	2.7	942	5.2	-47%
Canada	181	1.8	123	1.3	47%	184	2.2	-2%	365	2.0	265	1.5	38%
South America	974	9.8	1,098	11.4	-11%	1,128	13.3	-14%	2,102	11.4	2,165	12.0	-3%
Brazil	868	8.8	994	10.3	-13%	1,006	11.9	-14%	1,874	10.2	1,913	10.6	-2%
Others	106	1.1	104	1.1	2%	122	1.4	-13%	228	1.2	252	1.4	-10%
Asia	6,858	69.1	6,278	64.9	9%	5,169	61.1	33%	12,027	65.4	11,004	60.8	9%
China	4,994	50.3	4,638	47.9	8%	3,674	43.4	36%	8,668	47.2	8,045	44.4	8%
Japan	927	9.3	824	8.5	13%	682	8.1	36%	1,609	8.8	1,513	8.4	6%
South Korea	282	2.8	374	3.9	-25%	206	2.4	37%	488	2.7	686	3.8	-29%
Others	655	6.6	442	4.6	48%	607	7.2	8%	1,262	6.9	760	4.2	66%
Europe	1,079	10.9	1,227	12.7	-12%	1,009	11.9	7%	2,088	11.4	2,790	15.4	-25%
Germany	286	2.9	294	3.0	-3%	326	3.9	-12%	612	3.3	722	4.0	-15%
Italy	34	0.3	182	1.9	-81%	19	0.2	79%	53	0.3	365	2.0	-85%
Others	759	7.7	751	7.8	1%	664	7.8	14%	1,423	7.7	1,703	9.4	-16%
Middle East	251	2.5	162	1.7	55%	266	3.1	-6%	517	2.8	400	2.2	29%
Rest of the World	323	3.3	354	3.7	-9%	460	5.4	-30%	783	4.3	541	3.0	45%
Total	9,920	100.0	9,673	100.0	3%	8,459	100.0	17%	18,379	100.0	18,107	100.0	2%

Volume sold by destination – Iron ore and pellets

'000 metric tons	2Q24	2Q23	Δ y/y	1Q24	Δ q/q	1H24	1H23	Δ y/y
Americas	9,965	10,784	-8%	9,785	2%	19,750	20,935	-6%
Brazil	8,977	9,512	-6%	8,762	2%	17,739	18,261	-3%
Others	988	1,272	-22%	1,023	-3%	2,011	2,674	-25%
Asia	62,357	56,618	10%	46,872	33%	109,229	94,676	15%
China	49,422	44,908	10%	36,309	36%	85,731	73,203	17%
Japan	6,543	6,269	4%	5,065	29%	11,608	11,814	-2%
Others	6,392	5,441	17%	5,498	16%	11,890	9,659	23%
Europe	4,199	4,022	4%	3,317	27%	7,516	9,190	-18%
Germany	1,185	426	178%	776	53%	1,961	1,390	41%
France	590	742	-20%	589	0%	1,179	1,822	-35%
Others	2,424	2,854	-15%	1,952	24%	4,376	5,978	-27%
Middle East	1,386	953	45%	1,407	-1%	2,793	2,193	27%
Rest of the World	1,885	1,997	-6%	2,446	-23%	4,331	3,038	43%
Total	79,792	74,374	7%	63,827	25%	143,619	130,032	10%

Net operating revenue by business area

US\$ million	2Q24	%	2Q23	%	Δ y/y	1Q24	%	Δ q/q	1H24	%	1H23	%	Δ y/y
Iron Ore Solutions	8,298	84%	7,776	80%	7%	7,025	83%	18%	15,323	83%	14,187	78%	8%
Iron ore fines	6,729	68%	6,235	64%	8%	5,292	63%	27%	12,021	65%	11,217	62%	7%
ROM	27	0%	34	0%	-21%	27	0%	0%	54	0%	60	0%	-10%
Pellets	1,394	14%	1,413	15%	-1%	1,585	19%	-12%	2,979	16%	2,735	15%	9%
Others	148	1%	94	1%	57%	121	1%	22%	269	1%	175	1%	54%
Energy Transition Metals	1,622	16%	1,871	19%	-13%	1,434	17%	13%	3,056	17%	3,869	21%	-21%
Nickel	639	6%	930	10%	-31%	558	7%	15%	1,197	7%	1,943	11%	-38%
Copper	699	7%	516	5%	35%	587	7%	19%	1,286	7%	1,099	6%	17%
PGMs	38	0%	85	1%	-55%	68	1%	-44%	106	1%	160	1%	-34%
Gold as by-product ¹	155	2%	131	1%	18%	137	2%	13%	292	2%	228	1%	28%
Silver as by-product	12	0%	12	0%	0%	10	0%	20%	22	0%	21	0%	5%
Cobalt ¹	2	0%	22	0%	-91%	10	0%	-80%	12	0%	43	0%	-72%
Others ²	77	1%	175	2%	-56%	63	1%	22%	141	1%	375	2%	-62%
Others	-	0%	26	0%	-100%	-	0%	0%	-	0%	51	0%	-100%
Total	9,920	100%	9,673	100%	3%	8,459	100%	17%	18,379	100%	18,107	100%	2%

¹ Exclude the adjustment of US\$ 83 million in 2Q24, US\$ 67 million in 1Q24, US\$ 150 million in 1H24, US\$ 52 million in 2Q23 and US\$ 87 million in 1H23, related to the performance of streaming transactions at market price. ² Includes marketing activities.

Projects under evaluation and growth options

Copper		
Alemão	Capacity: 60 ktpy	Stage: FEL3
Carajás, Brazil	Growth project	Investment decision: 2025
Vale's ownership: 100%	Underground mine	115 kozpy Au as byproduct
South Hub extension (Bacaba)	Capacity: 60-80 ktpy	Stage: FEL3¹
Carajás, Brazil	Replacement project	Investment decision: 4Q24
Vale's ownership: 100%	Open pit	Development of mines to feed Sossego mill
Victor	Capacity: 20 ktpy	Stage: FEL3
Ontario, Canada	Replacement project	Investment decision: 2025
Vale's ownership: N/A	Underground mine	5 ktpy Ni as co-product; JV partnership under discussion
Hu'u	Capacity: 300-350 ktpy	Stage: FEL2
Dompus, Indonesia	Growth project	200 kozpy Au as byproduct
Vale's ownership: 80%	Underground block cave	
North Hub	Capacity: 70-100 ktpy	Stage: FEL1
Carajás, Brazil	Growth project	
Vale's ownership: 100%	Mines and processing plant	
Nickel		
Sorowako Limonite	Capacity: 60 ktpy	Stage: FEL3
Sorowako, Indonesia	Growth project	Investment decision: 4Q24
Vale's ownership: N/A ²	Mine + HPAL plant	8 ktpy Cu as by-product
Creighton Ph. 5	Capacity: 15-20 ktpy	Stage: FEL3
Ontario, Canada	Replacement project	Investment decision: 2025
Vale's ownership: 100%	Underground mine	10-16 ktpy Cu as by-product
CCM Pit	Capacity: 12-15 ktpy	Stage: FEL3
Ontario, Canada	Replacement project	Investment decision: 2024-2025
Vale's ownership: 100%	Open pit mine	7-9 ktpy Cu as by-product
CCM Ph. 3	Capacity: 5-10 ktpy	Stage: FEL3
Ontario, Canada	Replacement project	Investment decision: 2025
Vale's ownership: 100%	Underground mine	7-13 ktpy Cu as by-product
CCM Ph. 4	Capacity: 7-12 ktpy	Stage: FEL2
Ontario, Canada	Replacement project	7-12 ktpy Cu as by-product
Vale's ownership: 100%	Underground mine	
Nickel Sulphate Plant	Capacity: ~25 ktpy	Stage: FEL3
Quebec, Canada	Growth project	Investment decision: 2024-2025
Vale's ownership: N/A		
Iron ore		
Apolo	Capacity: Under evaluation	Stage: FEL2
Southern System, Brazil	Growth project	
Vale's ownership: 100%	Open pit mine	
Green briquette plants	Capacity: Under evaluation	Stage: FEL3 (two plants) FEL 2 (6 plants)
Brazil and other regions	Growth project	Investment decision: 2025-2030
Vale's ownership: N/A	Cold agglomeration plant	8 plants under engineering stage, including co-located plants in clients' facilities
Serra Leste expansion	Capacity: +4 Mtpy (10 Mtpy total)	Stage: FEL2
Northern System (Brazil)	Growth project	
Vale's ownership: 100%	Open pit mine	
S11C	Capacity: Under evaluation	Stage: FEL2
Northern System (Brazil)	Growth project	
Vale's ownership: 100%	Open pit mine	
Serra Norte N1/N2³	Capacity: Under evaluation	Stage: FEL2
Northern System (Brazil)	Replacement project	
Vale's ownership: 100%	Open pit mine	
Mega Hubs	Capacity: Under evaluation	Stage: Prefeasibility Study
Middle East	Growth project	
Vale's ownership: N/A	Industrial complexes for iron ore concentration and agglomeration and production of direct reduction metallics	Vale signed three agreements with Middle East local authorities and clients to jointly study the development of Mega Hubs

¹ Refers to the most advanced projects (Bacaba and Cristalino).

² Indirect ownership through Vale's 44.34% equity in PTVI. PTVI will own 100% of the mine and has the option to acquire up to 30% of the plant as part of the JV agreement.

³ Project scope is under review given permitting constraints.