=

As filed with the Securities and Exchange Commission on March 27, 2025.

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 20-F

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended: December 31, 2024
Commission file number: 001-38256

NEXA RESOURCES S.A.
(Exact name of Registrant as specified in its charter)

Grand Duchy of Luxembourg
(Jurisdiction of incorporation or organization)

José Carlos del Valle
Senior Vice President of Finance and Group Chief Financial Officer
Phone: +352 28 26 37 27
37A, Avenue J.F. Kennedy
L-1855, Luxembourg
Grand Duchy of Luxembourg
(Address of principal registered office)

Securities registered or to be registered pursuant to Section 12(b) of the Act:

Title of Each Class	Trading Symbol	Name of Each Exchange on Which Registered
Common shares, each with par value of US$1.00	NEXA	New York Stock Exchange

Securities registered or to be registered pursuant to Section 12(g) of the Act: None
Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: None
The number of outstanding shares of each class of stock of Nexa Resources S.A. as of December 31, 2024, was:
132,438,611 common shares, each with par value of US$1.00

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.
Yes ☐ No ☑

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.
Yes ☐ No ☑

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days.
Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).
Yes ☑ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or an emerging growth company. See definition of “accelerated filer,” “large accelerated filer” and “emerging growth company” in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☐ Accelerated filer ☑ Non-accelerated filer ☐ Emerging growth company ☐

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards† provided pursuant to Section 13(a) of the Exchange Act. ☐

The term “new or revised financial accounting standard” refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark whether the registrant has filed a report on and attestation to its management’s assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☑

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☒

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant’s executive officers during the relevant recovery period pursuant to § 240.10D-1(b). ☒

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:
U.S. GAAP ☐ International Financial Reporting Standards as issued by the International Accounting Standards Board ☑ Other ☐

If “Other” has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

Item 17 ☐ Item 18 ☐

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes ☐ No ☑

TABLE OF CONTENTS

		Page
	Form 20-F cross reference guide	iv
	Forward-looking statements	1
	About the Company	4
	Presentation of financial and other information	5
	Risk factors	7
I.	**Information on the Company**	**32**
	Business overview	32
	Mining operations	38
	Smelting operations	80
	Other operations	83
	Mineral Reserves and Resources	89
	Capital expenditures	105
	Environmental, social and governance (“ESG”)	106
	Regulatory matters	112
II.	**Operating and financial review and prospects**	**121**
	Overview	121
	Results of operations	131
	Liquidity and capital resources	149
	Risk management	155
III.	**Share ownership and trading**	**160**
	Major shareholders	160
	Related party transactions	161
	Distributions	164
	Trading markets	166
	Purchases of equity securities by the issuer and affiliated purchasers	167
IV.	**Corporate governance, management and employees**	**168**
	Corporate governance	168
	Board of directors	173
	Executive officers and Management committee	182
	Executive and director compensation	186
	Employees	191
V.	**Additional information**	**192**
	Legal proceedings	192
	Articles of association	195
	Taxation	199
	Exchange controls and other limitations affecting security holders	208
	Evaluation of disclosure controls and procedures	209
	Internal control over financial reporting	210
	Principal accountant fees and services	211
	Information filed with securities regulators	212
	Glossary	213
	Exhibits	216
	Signatures	217
	Nexa Resources S.A. Financial Statements	218

FORM 20-F CROSS REFERENCE GUIDE

Item	Form 20-F caption	Location in this report	Page
1	**Identity of directors, senior management and advisers**	Not applicable	–
2	**Offer statistics and expected timetable**	Not applicable	–
3	**Key information**		
	3A Reserved	Not applicable	–
	3B Capitalization and indebtedness	Not applicable	–
	3C Reasons for the offer and use of proceeds	Not applicable	–
	3D Risk factors	Risk factors	7
4	**Information on the Company**		
	4A History and development of the Company	About the Company, Business overview, Capital expenditures	4, 32, 105
	4B Business overview	Business overview, Mining operations, Smelting operations, Other operations, Mineral Reserves and Resources, Regulatory matters	32, 38, 80, 83, 89, 112
	4C Organizational structure	Business overview, List of Subsidiaries	32, Exhibit 8
	4D Property, plants and equipment	Mining operations, Smelting operations, Other operations, Capital expenditures, Regulatory matters	38, 80, 83, 105, 112
4A	**Unresolved staff comments**	None	–
5	**Operating and financial review and prospects**		
	5A Operating results	Results of operations	131
	5B Liquidity and capital resources	Liquidity and capital resources	149
	5C Research and development, patents and licenses, etc.	Business overview	32
	5D Trend information	Results of operations	131
	5E Critical Accounting Estimates	Critical Accounting Estimates	-
6	**Directors, senior management and employees**		
	6A Directors and senior management	Board of directors, Executive officers and Management committee	173, 182
	6B Compensation	Executive and director compensation	186
	6C Board practices	Corporate governance, Board of directors	168, 173
	6D Employees	Employees	191
	6E Share ownership	Board of directors—Share ownership	181
	6F Disclosure of a registrant’s action to recover erroneously awarded compensation	Executive and director compensation	186
7	**Major shareholders and related party transactions**		
	7A Major shareholders	Major shareholders	160
	7B Related party transactions	Related party transactions	161
	7C Interests of experts and counsel	Not applicable	–
8	**Financial information**		
	8A Consolidated statements and other financial information	Nexa Resources S.A. Financial Statements, Distributions, Legal proceedings	218, 164, 192
	8B Significant changes	Not applicable	–
9	**The offer and listing**		
	9A. Offer and listing details	Trading markets	166
	9B Plan of distribution	Not applicable	–

	9C Markets	Trading markets	166
	9D Selling shareholders	Not applicable	–
	9E Dilution	Not applicable	–
	9F Expenses of the issue	Not applicable	–
10	**Additional information**		
	10A Share capital	Not applicable	–
	10B Memorandum and articles of association	Articles of association	195
	10C Material contracts	Business overview, Results of operations, Related party transactions	32, 131, 161
	10D Exchange controls	Exchange controls and other limitations affecting security holders	208
	10E Taxation	Taxation	199
	10F Dividends and paying agents	Not applicable	–
	10G Statement by experts	Not applicable	–
	10H Documents on display	Information filed with securities regulators	212
	10I Subsidiary information	Not applicable	–
	10J Annual Report to Security Holders	Not applicable	–
11	**Quantitative and qualitative disclosures about market risk**	Risk management	155
12	**Description of securities other than equity securities**	Not applicable	–
13	**Defaults, dividend arrearages and delinquencies**	Not applicable	–
14	**Material modifications to the rights of security holders and use of proceeds**	Not applicable	–
15	**Controls and procedures**	Evaluation of disclosure controls and procedures, Internal control over financial reporting	209, 210
16A	**Audit committee financial expert**	Board of directors—Committees of our Board of directors—Audit committee	178
16B	**Code of ethics**	Corporate governance—Code of conduct	168
16C	**Principal accountant fees and services**	Principal accountant fees and services	211
16D	**Exemptions from the listing standards for audit committees**	Not applicable	–
16E	**Purchases of equity securities by the issuer and affiliated purchasers**	Purchases of equity securities by the issuer and affiliated purchasers	167
16F	**Change in registrant’s certifying accountant**	Not applicable	–
16G	**Corporate governance**	Corporate governance	168
16H	**Mine safety disclosure**	Not applicable	–
16K	**Cybersecurity**	Risk management	155
16J	**Insider trading policies**	Executive and Director Compensation	186
17	**Financial statements**	Not applicable	–
18	**Financial statements**	Nexa Resources S.A. Financial Statements	218
19	**Exhibits**	Exhibits	217

FORWARD-LOOKING STATEMENTS

This annual report includes statements that constitute estimates and forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or Securities Act, and Section 21E of the Securities Exchange Act, as amended, or Exchange Act. The words "believe," "will," "may," "may have," "would," "estimate," "continues," "anticipates," "intends," "plans," "expects," "budget," "scheduled," "forecasts" and similar words are intended to identify estimates and forward-looking statements. Estimates and forward-looking statements refer only to the date when they were made, and we do not undertake any obligation to update or revise any estimate or forward-looking statement due to new information, future events or otherwise, except as required by law. Estimates and forward-looking statements involve risks and uncertainties and do not guarantee future performance, as actual results or developments may be substantially different from the expectations described in the forward-looking statements.

These statements appear in a number of places in this report and include statements regarding our intent, belief or current expectations, and those of our officers and employees, with respect to, among other things: (i) our future financial or operating performance; (ii) our growth strategy; (iii) future trends that may affect our business and results of operations; (iv) the impact of competition and applicable laws and regulations on our results; (v) planned capital investments; (vi) future of zinc and/or other metal prices; (vii) estimation of mineral reserves and mineral resources; (viii) mine life; and (ix) our financial liquidity.

Forward-looking statements are not guarantees of future performance and involve risks and uncertainties. Actual results and developments may be substantially different from the expectations described in the forward-looking statements for several reasons, many of which are not under our control. Among them, the activities of our competition, the future global economic situation, current and future political scenarios, in the countries in which we operate, and associated decisions, weather conditions, market prices and conditions, exchange rates, and operational and financial risks. The unexpected occurrence of one or more of the abovementioned events may significantly change the results of our operations on which we have based our estimates and forward-looking statements. Our estimates and forward-looking statements may be influenced by the following factors, including, among others:

- the cyclical and volatile prices of commodities;
- the changes in the expected level of supply and demand for commodities;
- foreign exchange rates, fluctuations, inflation and interest rate volatility;
- the risks and uncertainties related to economic and political conditions in the countries in which we operate;
- changes in global market conditions, impacting demand and pricing stability, including uncertainties related to global trade as a result of the imposition of tariffs between and among the United States and other countries and jurisdictions;
- the impact of expanded regional or global conflicts, including the war between Russia and Ukraine, the Israel-Hamas conflict, tensions between China and Taiwan and the resulting potential impacts on supply and demand for commodities, global security concerns, and market volatility;
- outbreaks of contagious diseases or health crises impacting overall economic activity regionally or globally, and the potential impact thereof on commodity prices and exchange rate variations in the currencies to which we are exposed to, our business and operating sites, and the global economy;
- increasing demand and evolving expectations from stakeholders with respect to our environmental, social and governance ("ESG") practices, performance and disclosures, including the ability to meet energy requirements while complying with greenhouse gas emissions regulations and other energy transition policy changes and laws in the countries in which we operate;
- the impact of increasing severity of weather events on our operations, workforce and value chain;
- environmental, safety and engineering challenges and risks inherent to mining;

- severe natural disasters, such as storms, prolonged heavy rainfall and floods, or earthquakes, disrupting our operations;
- operational risks, such as operator errors, mechanical failures and other accidents;
- the availability of materials, supplies, insurance coverage, equipment, required permits or approvals and financing;
- supply-chain and logistic related interruptions, including impacts to international freight and transportation networks;
- the implementation of our growth strategy, the availability of capital and the risks associated with related capital expenditures;
- failure to obtain financial assurance to meet closure and remediation obligations;
- the possible material differences between our estimates of Mineral Reserves and Mineral Resources and the mineral quantities we actually recover;
- the possibility that our permits, concessions, environmental studies, modificatory environmental studies and other governmental authorities requests may be terminated, not renewed or not granted by governmental authorities in the countries in which we operate which may result in impairment charges, fines and/or penalties;
- the impact of political and government changes in the countries in which we operate, and the effects of potential new legislation, including changes in taxation laws and any related agreements that Nexa has entered or may enter into with local governments;
- legal and regulatory risks, including ongoing or future investigations by local authorities with respect to our business and operations, as well as the conduct of our customers, along with the impact to our financial statements regarding the resolution of any such matters;
- labor disputes or disagreements with local communities or unions in the countries in which we operate;
- loss of reputation due to unanticipated operational failures or significant occupational incidents;
- failure or outage of our digital infrastructure or information and operating technology systems;
- cyber events or attacks (including ransomware, state-sponsored, data breaches and other cyberattacks) due to negligence, IT security failures or the increased use of artificial intelligence;
- the future impact of competition and changes in domestic and international governmental and regulatory policies that apply to our operations;
- interest rates increases, making the cost of capital and financial expenses higher than expected or even unattainable;
- regulatory changes in the countries where we operate, including new trade restrictions, tariff escalations, and policy shifts affecting cross-border commerce and supply chains, such as recent tariff increases on imports from Canada, Mexico, and China; and
- other factors discussed under “Risk Factors.”

Considering the risks and uncertainties described above, the events referred to in the estimates and forward-looking statements included in this report may or may not occur, and our business performance and results of operation may differ materially from those expressed in our estimates and forward-looking statements, due to factors that include but are not limited to those mentioned above.

These forward-looking statements are made as of the date of this annual report, and we assume no obligation to update them or revise them to reflect new events or circumstances. There can be no assurance that the forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements.

ABOUT THE COMPANY

We are a large-scale, low-cost, integrated polymetallic producer, zinc being our main product, with over 65 years of experience developing and operating mining and smelting assets in Latin America. We currently own and operate four long-life underground polymetallic mines – two located in the Central Andes of Peru, one located in the state of Minas Gerais in Brazil, and one in the state of Mato Grosso in Brazil, the Aripuanã mine, which completed its ramp-up phase in June 2024 and has transitioned to an ongoing operation as of the date of this annual report. We also own and operate one low-cost polymetallic open pit mine in the Central Andes of Peru, and three smelters – two located in the state of Minas Gerais in Brazil, Três Marias and Juiz de Fora, and one located in Lima, which is Cajamarquilla, the largest smelter in the Americas.

Nexa Resources S.A. is a public limited liability company (*société anonyme*) incorporated under the laws of Luxembourg on February 26, 2014. Our registered office is located at 37A, Avenue J.F. Kennedy, L-1855, Luxembourg, Grand Duchy of Luxembourg, and we are registered with the Luxembourg Trade and Companies Register under number B185489. Our telephone number at this address is +352 28 26 3727. Our main office outside of Luxembourg is located at Avenida Engenheiro Luís Carlos Berrini, n° 105, 6th floor, São Paulo, State of São Paulo, Brazil. Our website is www.nexaresources.com. None of the information available on our website is incorporated in this annual report and it should not be relied upon in deciding to invest in our common shares.

PRESENTATION OF FINANCIAL AND OTHER INFORMATION

Certain definitions

Unless otherwise indicated or the context otherwise requires, the terms below are defined in the following manner.

- "Nexa," "we," "us" and "our" or similar terms refer to Nexa Resources and, unless the context otherwise requires, its consolidated subsidiaries;
- "Nexa Resources" refers to Nexa Resources S.A., a Luxembourg public limited liability company (*société anonyme*);
- "Nexa CJM" refers to our subsidiary Nexa Resources Cajamarquilla S.A. (previously known as Votorantim Metais—Cajamarquilla S.A.), a corporation organized as a *sociedad anónima* under the laws of Peru;
- "Nexa Brazil" refers to our subsidiary Nexa Recursos Minerais S.A. (previously known as Votorantim Metais Zinco S.A.), a corporation organized as a *sociedade anônima* under the laws of Brazil;
- "Nexa Peru" refers to our subsidiary Nexa Resources Peru S.A.A. (previously known as Compañía Minera Milpo S.A.A.), a corporation organized as a *sociedad anónima abierta* under the laws of Peru and publicly traded on the Lima Stock Exchange;
- "Pollarix" refers to our subsidiary Pollarix S.A., a corporation organized as a *sociedade anônima* under the laws of Brazil;
- "VSA" refers to our controlling shareholder Votorantim S.A., a corporation organized as a *sociedade anônima* under the laws of Brazil;
- the "Votorantim Group" refers to our controlling shareholder VSA and, unless the context otherwise requires, its consolidated subsidiaries;
- the "*real,*" "*reais*" or "R$" refers to the Brazilian *real*, the official currency of Brazil;
- "*sol*," "*soles*" or "S/." refers to the Peruvian *sol*, the official currency of Peru; and

In addition, the meaning of other defined terms used in this report are set out in "Glossary."

Financial information

Our consolidated financial statements as of December 31, 2024, and 2023 and for each of the three years ended December 31, 2024, December 31, 2023, and December 31, 2022, are included in this annual report. Our consolidated financial statements are prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board ("IFRS Accounting Standards"). References in this report to "our consolidated financial statements" are to our consolidated financial statements as of December 31, 2024, and 2023 and for each of the three years ended December 31, 2024, December 31, 2023, and December 31, 2022, and the related notes thereto included elsewhere in this report.

The financial information presented in this report should be read in conjunction with our consolidated financial statements, including the related notes, and the section of this report titled "Operating and financial review and prospects."

The main consolidated companies included in our consolidated financial statements are:

- ***Nexa CJM*** – a Peruvian company that is 99.997% directly and indirectly owned by Nexa Resources and is mainly engaged in smelting zinc contained in concentrate. Nexa CJM's functional currency is the U.S. dollar.

- ***Nexa Peru*** – a Peruvian company that is 83.55% directly and indirectly owned by Nexa Resources and is mainly engaged in exploring, extracting, producing and trading zinc, copper and lead concentrates, extracted from its own three mining sites. Nexa Peru's functional currency is the U.S. dollar. Nexa Peru is a public company with its shares listed on the Lima Stock Exchange.

- ***Nexa Brazil*** – a Brazilian company that is 100.00% owned by Nexa Resources and is mainly engaged in exploring, extracting and producing zinc, copper and lead concentrates, and smelting zinc contained in concentrate with operations in the states of Minas Gerais and Mato Grosso. Nexa Brazil's functional currency is the *real*.

Non-IFRS Accounting Standards measures

For a discussion of how our management uses non-IFRS Accounting Standards measures as an additional measure of operational performance of the Company's business, including discussion of our Adjusted EBITDA, reconciliation with most comparable IFRS Accounting Standards figures and changes made in 2024, see "Operating and financial review and prospects—Results of Operations—Non-IFRS Accounting Standards measures and reconciliation."

All forward-looking non-IFRS Accounting Standards financial measures in this document, including cash cost guidance, are provided only on a non-IFRS Accounting Standards basis. This is due to the inherent difficulty of forecasting the timing or number of items that would be included in the most directly comparable forward-looking IFRS Accounting Standards financial measures. As a result, reconciliation of the forward-looking non-IFRS Accounting Standards financial measures to IFRS Accounting Standards financial measures is not available without unreasonable effort and we are unable to assess the probable significance of the unavailable information.

Country, market and industry information

This report contains and refers to information and statistics regarding the countries in which we operate and the markets for the metals we produce and sell. This data is obtained from independent public sources, including publications and materials from participants in the industry, such as Wood Mackenzie and from governmental entities such as the Brazilian Central Bank, Bloomberg Finance L.P., London Metal Exchange ("LME"), London Bullion Market Association ("LBMA"), Brazilian Ministry of Treasury (*Ministério da Fazenda*), Brazilian Ministry of Mines and Energy (*Ministério de Minas e Energia,* or "MME"), National Mining Agency (*Agência Nacional de Mineração*, or "ANM"), Brazilian Institute of Geography and Statistics (*Instituto Brasileiro de Geografia e Estatística*, or "IBGE"), the Getulio Vargas Foundation (*Fundação Getúlio Vargas,* or "FGV"), the Peruvian Stock Market Superintendency (*Superintendencia del Mercado de Valores*), the Peruvian Central Bank, the Peruvian Ministry of Economy and Finance (*Ministerio de Economía y Finanzas*) and the Peruvian National Institute of Statistics and Informatics (*Instituto Nacional de Estadística e Informática*). Some data is also based on our estimates, which are derived from our review of internal reports, as well as independent sources.

Volume information

All tonnage information in this report is expressed in metric tonnes, unless stated otherwise, and all references to ounces are to troy ounces, in each case, unless otherwise specified.

RISK FACTORS

Nexa and its operations are exposed to several inherent risks and uncertainties, including those described below. The risks described below are not the only ones that we face. Additional risks that we do not presently consider material, or of which we are not currently aware, may also affect us. Our business, results of operations, financial condition and cash flows could be materially and adversely affected if any of these risks materialize. You should carefully consider these risks with respect to an investment in Nexa. This section is divided in two sub-sections: the “Risk Factors Summary”, which provides a brief summary of our Risk Factors and “Detailed Risk Factors,” providing detailed information in relation to each Risk Factor identified.

Risk Factors Summary

The following summarizes the main risks to which we are subject. You should carefully consider all of the information discussed below in “Item 3—Key Information—Risk Factors—Detailed Risk Factors” in this annual report for a comprehensive description of these and other risks.

Business risks

- Our business is highly dependent on the international market prices of the metals we produce, which are both cyclical and volatile.
- Changes in the demand and supply for the metals we produce, including as a result of the cyclicality of global economic activity, could adversely affect our sales volume and revenues.
- Adverse economic developments in China could have a negative impact on our revenues, cash flow and profitability.
- The mining industry is highly competitive.

Operational risks

- The mining business is subject to inherent risks, some of which are not insurable.
- We may be materially and adversely affected by challenges relating to slope and stability of underground openings.
- Our projects are subject to operational risks that may result in increased costs or delays that prevent their successful implementation and/or adversely affect their expected financial return.
- Our business could be adversely affected by the failure of our counterparties to perform their obligations.
- We may be adversely affected by the failure or unavailability of adequate infrastructure and skilled labor.
- The failure of a tailings dam could negatively impact our business, reputation and results of operations, and the implementation of associated regulations and decommissioning processes may be expensive.
- We are subject to mine closure and environmental reclamation obligations, which may require substantial financial assurance and could negatively impact our liquidity and financial condition.
- A disruption in global zinc concentrate supply could have a material adverse effect on our production levels and financial results.
- Inadequate supply of zinc secondary feed materials and zinc calcine could affect the results of our smelters.
- Interruptions of energy supply or increases in energy costs may materially and adversely affect our operations.
- Shortages of water supply due to permitting, licensing, and other governmental regulations, explosives, critical spare parts, maintenance service and new equipment and machinery may materially and adversely affect our operations and development projects.
- There are unique risks inherent to the development of underground mines, which may have a material adverse impact on our cash flows.
- We may be adversely affected by labor disputes.
- We may be liable for certain payments to individuals employed by third-party contractors.
- We may be subject to misconduct by our employees, third-party contractors or customers.
- The nature of our business includes risks related to litigation and administrative proceedings that could materially and adversely affect our business and financial performance in the event of unfavorable rulings.
- We could face significant challenges due to failures or interruptions in our information technology systems or automated machinery, including system security breaches resulting from cyber-attacks.

- Our information and operational technology systems may be adversely affected by disruptions, damage, failure and risks associated with implementation and integration of new technologies.

Financial risks

- Our financial position and results of operations may be materially and adversely affected by currency exchange rate fluctuations.
- Fluctuations in interest rates could increase the cost of servicing our debt, affect returns on our financial investments and negatively affect our overall financial performance.
- We may engage in hedging and other derivatives activity that may not be successful and may result in losses or tax liabilities.
- Our business requires substantial capital expenditures and is subject to financing risks.
- We are exposed to credit risk in relation to our contractual and trading counterparties as well as to hedging and derivative counterparty risk, and our results of operations may be negatively impacted by increases in expected credit losses.
- Any acquisitions or divestitures we make may not be successful or achieve the expected benefits.
- Changes in the assumptions underlying the carrying amount of certain assets could result in impairment charges.
- We might not be able to pay the principal and interest on our debt obligations if they are accelerated due to the noncompliance with the restrictive covenants and clauses of our debt contracts.
- Any tax-related investigations carried out by federal, state or local governments may result in a material impact on our business, results of operations and financial condition.

Risks related to our Mineral Reserves and Resources

- Our estimates of Mineral Reserves and Resources may be materially different from the total mineral quantities we actually recover, and changes in metal prices, operating and capital costs, and other assumptions used to calculate these estimates may render certain Mineral Reserves and Resources uneconomical to mine.
- We depend on our ability to replenish our Mineral Reserves for our long-term viability.
- Our mineral exploration efforts are highly speculative in nature and may be unsuccessful.

Health, safety and environmental risks

- We are exposed to health, safety and environmental risks in our operations, which may lead to accidents, significant losses, administrative proceedings and legal liabilities.
- The collapse of dams, dry tailings or other geotechnical structures may cause severe damages, including personal, property, reputational environmental damages, and loss of life.
- Health, safety and environmental laws and regulations, including regulations pertaining to adverse weather events, may increase our costs of doing business, restrict our operations or result in the imposition of fines or revocation of permits.
- ESG issues, including those related to adverse weather events and sustainability, may have an adverse effect on our business, financial condition, and results of operations, could damage our reputation, and may increase costs.
- Failure to meet ESG standards or achieve the Company’s environmental and social related goals could adversely affect its business, reputation, brand, results of operations, and/or financial condition.
- Natural disasters and increasing severity of weather-related events could affect our business.
- Global or regional health considerations, including the outbreak of a pandemic or contagious disease, have impacted and could continue to impact our business, financial condition and results of operations.

Political, economic, social and regulatory risks

- Political, economic and social conditions in the countries in which we have operations or projects, or in which we do business, could adversely impact our business, financial condition results of operations and the trading price of our securities.
- Recent and potential changes in commercial and mining laws, including trends like resource nationalism, may significantly impact our mining operations.
- Our mineral rights may be terminated or not renewed by governmental authorities.

- Our operations depend on our relations and agreements with local communities, and new projects require carrying out a prior consultation procedure.
- Changes in tax laws, and any related tax agreements we have entered into or may enter into with local governments, may increase our tax burden and, as a result, could adversely affect our business, financial position and results of operations.
- Our business, financial position and results of operations may be adversely affected by inflation.
- We are subject to anti-corruption, anti-bribery and anti-money laundering laws and regulations in various jurisdictions. Any violations of any such laws or regulations could have a material adverse impact on our reputation and results of operations and financial position.
- Political and social opposition to mining activities generally in the regions we operate could adversely impact our business and reputation.
- Differing interpretations of agency regulations or court rulings and the application of such laws and regulations could result in unintended non-compliance and may have a material effect on our business, results of operations, and financial position.
- Regulation of other activities.

Risks relating to our corporate structure

- VSA has substantial control over us, which could limit our shareholders' ability to influence the outcome of important corporate decisions.
- Dividends or other distributions paid by us on our common shares will generally be subject to Luxembourg withholding tax.
- The rights of our shareholders, and the responsibilities of VSA as our controlling shareholder, are governed by Luxembourg law and are subject to certain Brazilian law provisions, and differ in some respects from the rights and responsibilities of shareholders under the laws of other jurisdictions, including the United States, and Canada, and shareholders may have more difficulty protecting their interests than they would as shareholders of a U.S. corporation.
- Our ability to pay dividends or other distributions and repurchase shares is subject to several factors and conditions.
- It could be difficult for investors to enforce any judgment obtained outside Luxembourg against us or any of our associates.

Detailed Risk Factors

Nexa and its operations are exposed to several inherent risks and uncertainties, including those described below.

Business risks

Our business is highly dependent on the international market prices of the metals we produce, which are both cyclical and volatile.

Our business and financial performance is significantly affected by market prices of the metals we produce, particularly the market prices of zinc, copper, silver, lead and, to a lesser extent, gold. Historically, prices of such metals have been subject to wide fluctuations and are affected by numerous factors beyond our control, including international economic and political conditions, the cyclicality of consumption, actual or perceived changes in levels of supply and demand, the availability and costs of substitutes, inventory levels maintained by users, actions of participants in the commodities markets and currency exchange rates. We cannot predict whether, and to what extent, metal prices will rise or fall in the future.

The imposition of tariffs by the United States, along with retaliatory measures from other countries, may introduce additional volatility to global trade and, consequently, to the market prices of our products in 2025 and in the near future. We are actively monitoring the impact of these measures and cannot predict their ultimate effect on our business. Additionally, the persistent tensions surrounding international trade may increase the risk of an economic recession, which could lead to decreased demand for commodities and negatively affect commodity prices. The uncertainty surrounding these tariffs poses a significant risk that could adversely impact our financial performance and operations.

The ongoing conflicts between Russia and Ukraine, between Israel and Hamas and tensions between China and Taiwan have increased global security concerns, including the risk of broader regional or global escalation of such conflicts. These conflicts have had, and may continue to have, adverse effects worldwide. Additionally, fluctuations in the value of the US dollar, partly driven by global security concerns, directly impact commodity prices.

Continued ramifications of these global conflicts include disruption of the supply chain, which has led, and may continue to lead, to impacts on production, investment, and demand and prices for our products; higher and more volatile prices for commodities, including oil and gas; disruption of global financial markets, and further exacerbation of overall macroeconomic trends, including high inflation and rising interest rates. For more information see "Operating and Financial Review and Prospects—Overview".

Future declines in metal prices, especially with respect to zinc, copper, silver and lead prices, could have an adverse impact on our results of operations and financial position, and we might consider curtailing or modifying certain operations, selling certain operations or not proceeding with our sustaining and/or growth strategy. In addition, we may not be able to adjust production volume in a timely or cost-efficient manner in response to changes in metal prices. Lower utilization of capacity during periods of weak prices may expose us to higher unit production costs since a significant portion of our cost structure is fixed in the short-term due to the high capital intensity of mining operations. Conversely, during periods of high prices, our ability to rapidly increase production capacity may be limited, which could prevent us from selling more products. Moreover, we may be unable to complete expansions and greenfield projects in time to take advantage of rising prices for zinc, copper, lead or other products.

Changes in the demand and supply for the metals we produce, including as a result of the cyclicality of global economic activity, could adversely affect our sales volume and revenues.

Our revenues depend on the volume of metals we sell (and, to a lesser extent, the volume of metals produced by others that are smelted in our facilities. Our sales volume, in turn, depends on the level of industrial and consumer demand for these metals. An increase in the global production of zinc, copper, silver and lead along with a decline in demand for these metals, due to technological advances, changes in industrial processes or consumer habits, such as increased demand for substitute materials, economic slow-downs, or tariffs increasing prices could put downward pressure on metal prices. A decrease in prices may compromise the profitability of smelters, potentially leading us to reduce the volume of metals we sell, which could have a material adverse impact our operational results and financial position. Even if our sales volumes remain stable, lower prices could negatively impact our revenues.

The mining industry has historically been highly volatile largely due to the cyclical nature of industrial production, which affects the demand for minerals and metals. Demand for minerals and metals thus generally correlates to macroeconomic fluctuations in the global economy. Changes in the demand for the metals we produce could adversely affect our sales volume and revenues.

Adverse economic developments in China could have a negative impact on our revenues, cash flow and profitability.

China has been the primary driver of global commodity demand for commodities over the last few years. According to Wood Mackenzie, in 2024, Chinese demand accounted for 49% of global demand for refined zinc and 57% of global demand for refined copper. Any slowdown in China's economic growth that is not offset by increased demand from other regions or a reduction in supply could adversely affect demand for our products or commodity prices, leading to lower revenues, cash flow and profitability.

The mining industry is highly competitive.

We face competition from other mining, processing, trading and industrial companies in Brazil, Peru and around the world. Competition principally involves the following factors: sales, supply and labor prices; contractual terms and conditions; attracting and retaining qualified personnel; and securing the services, supplies and technologies we need for our exploratory activities and operations. Slower development in technology and innovation could impact costs, productivity and competitiveness. In addition, mines have limited life and, as a result, we must seek to replace and expand our mineral reserves by acquiring and exploring new properties. Significant competition exists to acquire mining concessions, land and related assets. There is also substantial demand for exploration and drilling equipment from our competitors. We cannot assure shareholders that competition will not adversely affect us in the future.

The international trade environment faces increasing uncertainty. Potential changes to international trade regulations and agreements, as well as other political and economic arrangements (including direct or indirect subsidies), may benefit competitors operating in countries other than where our mining operations are currently located. These changes could also adversely affect the prices we pay for the supplies we need and our export costs when we engage in international transactions. We cannot assure shareholders that we will be able to compete based on price or other factors with companies that in the future may benefit from favorable regulations, lower cost of capital, trading or other arrangements or that we will be able to maintain the cost of the supplies that we require as well as our export costs.

Operational risks

The mining business is subject to inherent risks, some of which are not insurable.

The business of mining zinc, copper, silver, lead and other minerals is generally subject to numerous risks and hazards. Hazards associated with underground mining operations include underground fires and explosions, including those caused by flammable gas, gas and coal outbursts, cave-ins or falls of ground, rock falls, openings collapse, lack of oxygen, air pollution, tailings dam failures or other discharges of tailings, hazardous substances and materials, gases and toxic chemicals, water ingress and flooding, sinkhole formation, ground subsidence, and other accidents and conditions resulting from underground mining activities, such as drilling, blasting, removing and processing material. In addition, we may encounter geotechnical challenges as we continue with and expand our mining activities, including the possibility of failure of underground openings.

Such occurrences could result in damage to, or destruction of, our properties or production facilities, third-party property, human exposure to pollution, personal injury or death, environmental and natural resource damage or contamination, delays in mining, monetary losses and legal liability. In addition, any such occurrence could adversely affect our reputation. Damages to our reputation could result in additional environmental and health and safety legal oversight, and authorities could impose more stringent conditions in connection with the licensing process of our projects and operations. In addition, our customers may be less willing to buy metals from us if we have been subject to significant adverse publicity. We maintain insurance typically in the mining industry, and in amounts that we believe to be adequate, but which may not provide complete coverage in certain circumstances. Insurance against certain risks (including certain liabilities for environmental contamination, tailings dam failures and other hazards as a result of exploration, production or extreme weather) may not be generally available or is uneconomical to afford. If we incur significant liability for which we are not fully insured, we may not be able to finance the uninsured liability amount on acceptable terms to us or at all, and we could be required to divert a significant portion of our cash flow from normal business operations. This could have a material impact on our financial position.

We could also incur additional expenses due to failures in our industrial drainage system or other environmental control equipment. Any such failures could also have adverse impacts on the environment, which could lead to adverse weather events and a further impact on our reputation if we are found to contribute, or there is a perception that we have contributed, to adverse environmental impacts in the areas in which we operate.

We may be materially and adversely affected by challenges relating to slope and stability of underground openings.

Our underground mines get deeper, and our waste and tailings deposits increase in size as we continue with and expand our mining activities. This presents certain geotechnical challenges, including the possibility of failure of underground openings. If we are required to further reinforce such openings or take additional actions to prevent such a failure, we could incur additional costs and expenses, and our operations and stated mineral reserves could be negatively affected. We have taken actions we consider appropriate to maintain the stability of underground openings, but additional actions may be required in the future. Unexpected failures or additional requirements to prevent such failures may materially and adversely affect our costs and expose us to health, safety and other liabilities in the event of an accident, as well as adversely impact on our reputation. These developments may in turn materially and adversely affect the results of our operations and financial position, as well as potentially diminish our stated mineral reserves.

Our projects are subject to operational risks that may result in increased costs or delays that prevent their successful implementation and/or adversely affect their expected financial return.

We invest in sustaining and increasing our mine and metal production capacity and developing new operations. Our projects are subject to several risks that may materially and adversely affect our growth prospects and profitability, including the following:

- we may encounter delays or higher than expected costs in completing technical and engineering studies and obtaining the necessary equipment, machinery, materials, supplies, labor or services, in project execution by third-party contractors and in implementing new technologies to develop and operate a project;

- we may experience delays in commencing and/or ramping up the operations of a new project or the expansion of an existing operation to its design capacity;

- our efforts to develop projects according to schedule may be hampered by a lack of infrastructure, including a reliable power supply;

- we may fail to obtain or renew, or experience delays or higher than expected costs in obtaining or renewing, the required agreements, authorizations, licenses, approvals and permits to develop a project, including the prior consultation procedure and agreements with local communities;

- changes in market conditions or regulations may make a project less profitable than expected at the time we initiated work on it;

- accidents, natural disasters, labor disputes, equipment failures, water shortages, logistical issues, interruption of energy supply and increase in energy costs;

- adverse mining conditions may delay and hamper our ability to produce the expected quantities and qualities of minerals upon which the project was budgeted;

- mineral reserves and resources are estimates based on the interpretation of limited sampling data and test work that may not be representative of the deposits as a whole, or the technical and economic assumptions used in the estimates may prove to be materially different when the deposits are mined, that could result in materially different economic outcomes; and

- conflicts with local communities, unions and/or strikes or other labor disputes may delay the implementation or the development of projects.

Our business could be adversely affected by the failure of our counterparties to perform their obligations.

Customers, suppliers, contractors, financial institutions, joint venture partners and other counterparties may fail to perform existing contracts and obligations, which may unfavorably impact our operations and financial results. The ability of suppliers and customers to perform their obligations may be adversely affected in times of financial stress and economic downturn.

We currently operate important parts of our operations, particularly those related to our energy consumption and investments, through joint ventures. Our forecasts and plans for these joint ventures assume that our partners will observe their obligations to make capital contributions, purchase products and, in some cases, provide skilled and competent managerial personnel. If any of our partners fails to observe its commitments, the affected joint venture or consortium may not be able to operate in accordance with its business plans, or we may have to increase the level of our investment to implement these plans.

Some of our investments are controlled by joint venture partners or have separate and independent management. These investments may not fully comply with our standards, controls and procedures, including our health, safety, environment and community standards. Failure by any of our partners or joint ventures to adopt adequate standards, controls and procedures could lead to higher costs, reduced production or environmental, health and safety incidents or accidents, which could adversely affect our results and reputation.

We may be adversely affected by the failure or unavailability of adequate infrastructure and skilled labor.

Our mining, smelting, processing, development and exploration activities depend to a large degree on adequate infrastructure. The regions where certain of our current operations, projects and prospects are located in remote, sparsely populated regions that are difficult to access. To conduct our operations efficiently, we depend on reliable roads, bridges, power sources, and water supplies. The availability and cost of this infrastructure directly impact our capital and operating expenses, as well as our ability to maintain expected production and sales levels. Various factors, such as unusual weather events, including heavy rainfall and flooding, or other natural disasters, sabotage, government actions or external interference (including protests by local communities that could temporarily suspend our projects) may disrupt infrastructure maintenance or availability. These disruptions could delay project development, reduce mining volumes, increase mining or exploration costs, and hinder the transportation of raw materials to our sites or the delivery of concentrates to customers. See "Risk factors—Health, safety and environmental risks—Natural disasters and increasing severity of weather-related events could affect our business."

In addition, the mining industry is labor intensive, and our success depends to a significant extent on our ability and our contractors' ability to attract, hire, train and retain qualified employees, including our ability and our contractors' ability to attract employees with the necessary skills in the regions in which we operate. We could experience increases in our recruitment and training costs and decreases in our operating efficiency, productivity and profit margins if we are unable to attract, hire and retain a sufficient number of skilled employees to support our operations.

The failure of a tailings dam could negatively impact our business, reputation and results of operations, and the implementation of associated regulations and decommissioning processes may be expensive.

As a mining company, we face inherent risks associated with the operation of tailings dams, which are structures built for the containment of the mining or industrial waste, known as tailings, and in the operation of related structures and facilities. We currently have 27 tailings dams, 5 dry stacking disposal facilities, 7 effluent dams and one water storage facility, all located in Brazil and Peru. Of these structures, 22 are operational, while 18 are inactive. All inactive structures are tailing dams. Some of our tailing's dams contain materials that could increase the potential hazard in the event of unexpected failure. As evidenced by the collapse of dams in Brazil over the last decade, any such failure could result in significant personal, property, reputational, social and environmental damages, and materially and adversely affect our reputation and our ability to conduct our operations and expose us to significant liability.

Recent regulatory changes have increased the time and costs associated with construction, operation, inspection, maintenance, and decommissioning tailings dams. In Brazil, obtaining or renewing an environmental license for new tailings dams or for building new dams now requires additional compliance measures. As part of this process, companies must present a proposal for an environmental bond to guarantee the socio-environmental recovery in the event of an accident or the deactivation of the dam. For more information see "Information on the Company—Mining operations—Tailings disposal."

In compliance with applicable regulations, we have conducted engineering studies to evaluate stability and confirm the construction method of old inactive industrial waste containment structures located in our Juiz de Fora unit, located in the State of Minas Gerais. These structures, since they became inactive more than 20 years ago, have been subject to decommissioning as monitored by the environmental agency of the State of Minas Gerais as part of the environmental licensing process for the unit. None of these structures contain mining tailings, water or liquid waste. We are currently engaged in discussions with the State Environment Foundation, FEAM (*"Fundação Estadual do Meio Ambiente"*) to present the results of the studies carried out. If FEAM establishes any obligation or condition regarding these structures, we may have implications which could require significant investments. As of December 31, 2024, we have a provision recognized for these other restoration obligations in the amount of US$6.8 million and we may reserve additional amounts for the estimated costs of anticipated additional obligations in relation to these inactive structures.

Certain regulations, such as those enacted by ANM between 2020 and 2023, may also impose requirements that are more restrictive than our current standards, including mandated compliance with emergency plans and increased insurance requirements and premiums, or require us to pay additional fees or royalties to operate tailings dams. We may also be required to facilitate the relocation of communities and facilities impacted by tailings dam failures. Moreover, insurance coverage for damages resulting from tailings dams' failure may not be available. As a result, we may incur increased expenses in connection with compliance with applicable standards, which may adversely impact on our results. If we fail to comply with applicable requirements, we may be exposed to liability and other penalties.

We are subject to mine closure and environmental reclamation obligations, which may require substantial financial assurance and could negatively impact our liquidity and financial condition.

As a mining company, we are obligated to reclaim and remediate operationally affected areas during and after mining activities. These obligations are subject to regulatory changes, site conditions, and other external factors. In certain jurisdictions, we are required to provide financial assurances, such as bank guarantees, to ensure compliance with reclamation requirements. While these assurances are currently modest relative to our overall obligations, they may increase over time.

The costs associated with mine closure and environmental reclamation could be significant and may increase annually due to inflation, changes in regulatory requirements, and unforeseen site conditions. As of December 31, 2024, we have recognized provisions for these obligations; however, actual costs may exceed estimates. Changes in the regulatory requirements or the scope of necessary reclamation work could further impact our financial position and cash flows.

Failure to fulfil our reclamation and closure obligations or to provide adequate financial assurance could result in regulatory penalties, including fines, permits revocations, or other adverse consequences. Such risks could materially and adversely affect our operations, financial results, and reputation.

A disruption in global zinc concentrate supply could have a material adverse effect on our production levels and financial results.

A portion of the zinc concentrate processed in our smelters is obtained from third parties, and we may be adversely affected if we are not able to source adequate supplies of zinc for such operations. In 2024, 46.4% of the zinc concentrate processed in our smelters was obtained from third parties, with the remainder supplied by our own mining operations. The availability and price of zinc concentrate used by our smelters may be negatively affected by several factors largely beyond our control, including interruptions in production in our mines or by our suppliers, decisions by suppliers to allocate supplies of concentrate to other purchasers, price fluctuations and increasing transport cost.

In addition, the efficiency of a smelter's production over time is affected by the mix of the zinc concentrate qualities and grades it processes. In circumstances where we cannot source adequate supplies of the zinc concentrate qualities and grades that comprise the most efficient mix for our smelters, alternative types of concentrate may be available, but the use thereof may increase our costs of production or reduce the productivity of our smelters and adversely affect our business, results of operations and financial position.

Inadequate supply of zinc secondary feed materials and zinc calcine could affect the results of our smelters.

Zinc sourced from suppliers of secondary feed materials represented approximately 15.4% of the zinc content used by our Juiz de Fora smelter in 2024. The use of zinc secondary feed material is a competitive advantage in relation to the use of zinc concentrate, mainly due to lower acquisition costs and, to a lesser extent, operational gains. In addition, in recent years we have incorporated zinc calcine processed by third parties into our operations to increase production in our smelters. Our smelters then use this zinc calcine processed by third parties to produce additional refined zinc products that they would not produce were they to rely solely on other inputs. To the extent we are unable to obtain adequate supplies of zinc secondary feeds or zinc calcine, or if we must pay higher than anticipated prices of these inputs, our business, results of operations and financial position may be adversely affected. In recent years, our calcine supplier in Peru shut down its facilities, impacting our smelter production. Since 2022, we were able to partially offset the reduction in calcine availability through the development and consumption of new sources of secondary raw materials, such as third-party waelz oxide, which now gives us flexibility for the consumption of different raw materials in our smelter operations. Though we have been able to secure a new source of calcine in Peru in 2024, we cannot assure shareholders that we will be able to continuously have secure access to the raw materials required for our operations in the future. For more information, see "Information on the Company—Smelting Operations—Smelter sales."

Interruptions of energy supply or increases in energy costs may materially and adversely affect our operations.

Energy is an important component of our production costs. In Peru, we obtain almost all electric power for our operations from third parties through energy supply contracts. Although we are party to a long-term power purchase agreement with Electroperú S.A., we cannot ensure that we will have secure access to energy sources in Peru at the same prices and conditions in the event of any interruption or failure of our sources of energy, failures or congestion in any part of the *Sistema Eléctrico Interconectado Nacional* ("SEIN"), any failure to renew or extend our other existing energy supply contracts, or due to any regulatory changes that may impact energy rates. In 2024, rainfall was stable throughout the year. Without major water shortages, average energy prices remained around US$30/MWh. However, the inefficient energy generation in the SEIN, which currently lacks renewable energy projects (i.e., hydroelectric, wind and solar), may adversely impact our operations in case of lack of rain in central Peru, given that most of the energy consumption in the country comes from hydroelectric plants, and may result in an increase in energy prices. These types of renewable projects are expected to lower the prices that energy generators are able to offer to large industrial users.

In Brazil, we obtain electric power for our operations from hydroelectric plants grouped into several legal entities—which are directly or indirectly jointly owned by us, our controlling shareholder and its affiliates—pursuant to long-term power purchase agreements. In 2024, self-production plants represented 83.2% of energy supply, in terms of energy acquired via energy purchase and sale contracts. Furthermore, our energy costs under these agreements could increase in the event of differences in the hydrology forecast due to these hydroelectric plants share of the hydrological risk, in addition to payment of higher energy taxes. For more information, see "Information on the Company—Other operations—Power and energy supply."

Prices and availability of energy resources for our operations may be subject to changes or curtailment due to, among other things, new laws or regulations, the imposition of new taxes or tariffs, supply interruptions, equipment damage, volatility and increase in worldwide price levels for energy and related components, market conditions and any inability to renew our existing supply contracts. Disruptions in energy supply or increases in costs of energy resources could increase our production costs and have a material adverse effect on our financial position and results of operations.

Shortages of water supply due to permitting, licensing, and other governmental regulations, explosives, critical spare parts, maintenance service and new equipment and machinery may materially and adversely affect our operations and development projects.

Our mining and smelting operations require the use of significant quantities of water for extraction activities, processing and related auxiliary facilities. Water usage, including extraction, containment, and recycling requires appropriate permits, which are granted by regulatory authorities in Brazil and Peru. The available water supply may be adversely affected by shortages or changes in governmental regulations. We cannot assure shareholders that water will be available in sufficient quantities to meet our future production needs or will prove sufficient to meet our water supply needs. In addition, we cannot assure shareholders that we will maintain our existing licenses related to water rights, particularly if political changes lead to additional regulatory requirements or review of existing licenses. A reduction in our water supply could materially and adversely affect our business, results of operations and financial position. In addition, if we are unable to obtain the necessary licenses with respect to water use, we may be prevented from pursuing some of our planned expansion projects.

In addition to water, our mining operations require intensive use of equipment and machinery as well as explosives. To be able to acquire and use explosives, we must first obtain the corresponding authorizations, which are granted by the relevant regulatory authorities in Brazil and Peru. A shortage in the supply of key spare parts, adequate maintenance service, new equipment and machinery to replace old ones and cover expansion requirements, or explosives, including due to the inability to deliver such water, energy, supplies, critical spare parts, explosives, or equipment and machinery to our operations, or regulatory change impacting our ability to obtain authorization for the acquisition of such materials, could materially and adversely affect our operations and development projects.

There are unique risks inherent to the development of underground mines, which may have a material adverse impact on our cash flows.

The development of underground mines is subject to other unique risks including, but not limited to, geotechnical conditions, underground floods, issues relating to ventilating harmful gases, fall-of-ground accidents, and seismic activity resulting from unexpected or difficult geological conditions. While we anticipate taking all measures to safely operate, there is no assurance that the effect of these risks will not cause schedule delays, revised mine plans, injuries to persons and property, and/or increased capital costs, any of which may have a material adverse impact on our cash flows.

We may be adversely affected by labor disputes.

Mining is a labor-intensive industry. We depend on more than 12,000 workers, including employees and contractors, to carry out our operations. A portion of our employees are unionized. We cannot assure that we will not experience work slowdowns, work stoppages, strikes or other labor disputes in the future, particularly in the context of the annual renegotiation of our collective bargaining agreements.

We may also be affected by labor-related disputes that broadly develop in the countries in which we operate. Strikes and other labor disruptions at any of our operations could have a material adverse effect on our business, financial position and results of operations.

We may be liable for certain payments to individuals employed by third-party contractors.

Under Peruvian law, we may become responsible under certain circumstances to pay mandatory labor benefits or other obligations to personnel employed by our third-party contractors or sub-contractors. Although we believe that we are in substantial compliance with Peruvian labor laws, we cannot assure shareholders that any proceedings initiated by outsourced employees will be resolved in our favor and that we will not be liable for any mandatory labor benefits or for-profit sharing benefits. In the beginning of 2022, a new law was published in Peru prohibiting companies from outsourcing core operational activities. More than 70% of our Peruvian workforce is employed by third-party contractors. In July 2023, the law was deemed to be unconstitutional because it was determined to be an unenforceable bureaucratic barrier by the National Institute for the Defense of Competition and the Protection of Intellectual Property ("INDECOPI") and therefore is not expected to have any material impact on Nexa. In addition, a lawsuit was initiated by Nexa which is seeking to declare the unconstitutionality of the aforementioned law. However, any future laws or regulations that would make Nexa responsible under Peruvian law for paying mandatory labor benefits or for-profit sharing benefits for individuals employed by third-party contractors could have an adverse impact on our business, financial position and results of operations. For more information, see "Information on the Company—Regulatory matters—Peruvian regulatory framework—Regulation of other activities."

Under Brazilian law, outsourcing is also permitted if certain requirements are met. In addition, Brazilian law provides that the contractor will be held liable on a secondary basis if the outsourced or subcontracted companies do not fulfill their labor obligations. In cases where the outsourced or subcontracted companies do not pay the workers the labor sums they are entitled to, the contractor is responsible for those payments. These payments may have an adverse effect on our results of operation and financial position.

We may be subject to misconduct by our employees, third-party contractors or customers.

We may be subject to misconduct by our employees, third-party contractors or customers, such as theft, bribery, sabotage, fraud, insider trading, violation of laws, including taxation laws, violation of human rights, slander or other illegal actions. Any such misconduct may lead to fines or other penalties, slow-downs in production, increased costs, lost revenues, increased liabilities to third parties, impairment of assets or harmed reputation, any of which may have a material adverse effect on our business, results of operations or financial position.

The nature of our business includes risks related to litigation and administrative proceedings that could materially and adversely affect our business and financial performance in the event of unfavorable rulings.

The nature of our business exposes us to various litigation matters, including civil liability claims, environmental matters, health and safety matters, regulatory and administrative proceedings, governmental investigations, tort claims, contract disputes, labor matters and tax matters, among others. We cannot assure shareholders that these or other legal proceedings will not have a material adverse effect on our ability to conduct our business or on our financial position and results of operations, through distraction of our management team, diversion of resources or otherwise. In addition, although we establish provisions in our financial statements as we deem necessary in accordance with IFRS Accounting Standards, the level of provisions that we record could vary significantly from any cash amounts we actually pay, due to the inherent uncertainties in the estimation process, which, in the aggregate, may negatively impact on our financial condition.

We could face significant challenges due to failures or interruptions in our information technology systems or automated machinery, including system security breaches resulting from cyber-attacks.

Our information technology systems and automation technology systems may be impacted by failures associated with various risks, including security system breaches or cyberattacks targeted at our technological infrastructure. In this regard, we invest in resources that help us deploy and enhance cybersecurity controls.

We have implemented and use systems and technological solutions for our operational and administrative processes. These can have material and adverse impacts on our results in the event of failures or unavailability due to malicious activities resulting from unauthorized access to our internal systems, vulnerabilities in critical systems, malware, corporate espionage, third-party system failures, and sabotage. These events may lead to the loss of critical data, unscheduled downtime or degradation of operations, disclosure or misuse of confidential information, reduced revenue, unexpected operational costs, reputational damage, and potential legal or regulatory violations. All of these factors could materially and adversely impact our financial and operational results.

We have observed an increase in cyber risk, significantly driven by geopolitical conflicts and the growing use of emerging technologies, particularly those based on Artificial Intelligence. Recent data shows a considerable rise in attacks targeting critical infrastructure, industrial companies, and government bodies. There has also been a notable evolution in the sophistication of malicious actions, requiring greater efforts from companies to enhance their readiness and ability to detect, respond to and recover from cyberattacks. Given the current scenario, we are susceptible to cyber incidents that may affect our technological infrastructure, whether proprietary or provided by business partners. Such events can adversely impact our operations and financial results and require financial expenditures to recover and address vulnerabilities in affected systems or technological solutions.

Privacy, data protection, and cybersecurity are constantly adapting to frequently changing regulations and standards. The General Data Protection Regulation ("GDPR") of the European Union came into effect in 2018, introducing stricter rules regarding the security of personal data. The GDPR requires companies to comply with new guidelines for handling personal and sensitive information, including its use, protection, and the rights of individuals to correct or delete their stored data. In Peru, the Personal Data Regulation, Law No. 29.733, known as the *Ley de Protección de Datos Personales* ("LPDP"), was enacted in 2011. Similarly, in Brazil, Law No 13.709, the *Lei Geral de Proteção de Dados* ("LGPD") came into effect in 2020, which closely mirrors the principles outlined in the GDPR. These regulations reflect the ongoing evolution of privacy, data protection, and cybersecurity standards worldwide. We also observe a series of deliberations by regulatory bodies responsible for Data Protection in these countries and regions, primarily focused on responsibilities and data breach reporting criteria; sanctions; and how to adequately calculate fines, and the role of the Data Protection Officer. Both the LGPD and LPDP represent comprehensive data protection laws, establishing detailed rules for the collection, use, processing and storage of personal data and affecting all economic sectors, including the relationship between customers and suppliers of goods and services, employees and employers and other relationships in which personal data is collected, whether in a digital or physical environment. In public companies that require certain disclosures regarding cybersecurity risk, such scrutiny from the regulators increases the risk of investigations into the cybersecurity practices, and related disclosures, of companies within its jurisdiction, which at a minimum can result in an increase in administrative costs, distraction of management and diversion of resources for targeted businesses. Any noncompliance with the GDPR, the LGPD, the LPDP, the SEC cybersecurity rules, or any other privacy, data protection and cybersecurity regulations could result in proceedings or actions against us by governmental entities, the imposition of fines or penalties and damage to our reputation, which could have an adverse effect on us and our business, reputation and results of operations

Our information and operational technology systems may be adversely affected by disruptions, damage, failure and risks associated with implementation and integration of new technologies.

Information and operational technology systems are constantly evolving, and to remain competitive, we must implement new technologies in a timely, cost-effective, and efficient manner. We are actively developing a corporate strategy for Artificial Intelligence and the use of new technologies, which may increase our exposure to cybersecurity risks. Failure to adopt new technologies, such as artificial intelligence, as efficiently or as quickly as our competitors may adversely affect our competitiveness and, consequently, the results of our operations.

Financial risks

Our financial position and results of operations may be materially and adversely affected by currency exchange rate fluctuations.

Our revenues are primarily denominated in U.S. dollars, while certain portions of our operating costs, particularly labor costs, are denominated in *reais* and *soles*. As a result, an increase in inflation in Brazil and Peru, without a corresponding devaluation of the *real* or *sol*, could materially and adversely affect our financial position, results of operations, net income and cash flows. See "Operating and Financial Review and Prospects—Key factors affecting our business and results of operations—Macroeconomic conditions of the countries and regions where we operate" for a discussion of inflation in 2024.

Given the structure of our operations, a decrease in the value of the U.S. dollar relative to the foreign currencies in which we incur costs could negatively impact our results of operations or financial position. Our exposure to foreign currency fluctuations increases the risk of volatility in our financial position, results of operations and cash flows. We cannot assure shareholders that currency fluctuations, or costs associated with our hedging activities (including fluctuations in exchange rates contrary to our expectations), will not adversely impact our financial position, credit ratings and results of operations.

Fluctuations in interest rates could increase the cost of servicing our debt, affect returns on our financial investments and negatively affect our overall financial performance.

A portion of our indebtedness bears interest based on variable/floating interest rates, including the Secured Overnight Financing Rate, or SOFR, the Interbank Deposit Certificate, or CDI and the Long-Term Rate, or TLP. As of December 31, 2024, 30% of our total debt was subject to variable/floating interest rates. These rates have fluctuated in response to changes in economic growth, monetary policy and regulatory changes. A significant increase in underlying interest rates, particularly in SOFR and CDI, could materially increase our financial expenses and materially and adversely affect our overall financial performance and credit ratings. For more information, see "Operating and Financial Review and Prospects—Liquidity and Capital Resources—Debt".

We may engage in hedging activity that may not be successful and may result in losses or tax liabilities.

We may use foreign exchange and metal commodity non-deliverable forwards to mitigate the risks associated with currency and metal price volatility. However, our hedging activities could cause us to lose or limit our ability benefit from increases in the prices of the metals we produce if prices rise above the levels set out in our hedge positions, or from favorable variations in currency prices. The cash flow and the mark-to-market values of our production hedges can be affected by factors such as currency volatility and fluctuations in metal prices, which are beyond our control.

Our hedging agreements contain events of default and termination events that could lead to early closeouts of our hedges such as failure to pay, breach of the agreement, misrepresentation, default under our loans or other hedging agreements and bankruptcy. In the event of an early termination of our hedging agreements, the relevant hedge positions would be required to be settled at that time. In that event, there could be a lump sum payment to be made either to or by us. The magnitude and direction of such a payment would depend upon, among other things, the characteristics of the particular hedge instruments that were terminated and the relevant market prices at the time of termination. Any of the factors described above could have a material adverse effect on our financial position, results of operations or cash flows. See "Operating and financial review and prospects—Risk management—Financial risk—Metal price sensitivity."

In addition, we may face the risk that the Peruvian tax authority ("SUNAT") does not recognize the deductibility of certain hedge transactions losses in our Corporate Income Tax ("CIT") calculations. SUNAT is currently challenging past hedge transactions that were previously considered eligible for deductions, resulting in tax assessments against Nexa Peru and Nexa CJM totaling US$37.2 million.

At this time, only a small provision has been recognized in connection with these assessments, primarily due to challenge in retrieving supporting documentation for events that occurred many years ago. Nevertheless, there remains a risk that SUNAT may not accept these deductions for future hedging positions, which could result in either the inability to claim such deductions or the obligation to pay substantial amounts.

Our business requires substantial capital expenditures and is subject to financing risks.

Our business is capital intensive. Exploration for and exploitation of mineral deposits, maintenance of machinery and equipment and compliance with applicable laws and regulations require substantial capital expenditures. We must continue to invest capital to maintain and potentially expand our existing brownfield operations, develop our greenfield projects pipeline in order to sustain and grow production, in addition to carrying out investments in sustaining, health, safety and environment. In 2024, we invested US$276.8 million in capital expenditures, US$268.0 million of which was in relation to sustaining investments, including Tailings Storage Facility ("TSF") expenses. We depend partially on our operating cash flows to support our capital expenditures. See "Information on the Company—Capital expenditures."

No assurance can be given that we will be able to maintain our production levels or generate sufficient cash flow, or have access to sufficient investments, loans or other financing alternatives to finance our capital and other projects expenditure program at a level necessary to sustain and grow our current exploration and exploitation activities. Any equity or debt financing, if available, may not be on terms that are favorable to us. If our access to external financing is limited, we may not be able to execute our strategy, which could adversely affect our business, financial position and results of operations.

We are exposed to credit risk in relation to our contractual and trading counterparties as well as to hedging and derivative counterparty risk, and our results of operations may be negatively impacted by increases in expected credit losses.

We are subject to the risk that the counterparties with whom we conduct our business (in particular our customers) and who are required to make payments to us are unable to make such payment in a timely manner or at all. Credit risk is present in our hedging operations, customer operations and cash management operations. If the amounts that are due to us are not paid or not paid in a timely manner, this may impact not only on our current trading and cash-flow position but also on our financial and business position. In addition, our derivatives, metals hedging, and foreign currency and energy risk management activities expose us to the risk of default by the counterparties to such arrangements. Any such default could have a material adverse effect on our business, financial position and results of operations.

We hold a significant balance of accounts receivable and, therefore, provide an allowance to cover the amount that may not be received due to customer default. We record expected credit losses at an amount considered sufficient to cover estimated losses in the realization of receivables, taking into account our historical losses and internal risk classification of our customers, although we cannot guarantee that these amounts are sufficient to cover any losses. Additionally, delays in payment cycles from significant customers may adversely affect our liquidity and our ability to obtain financing for working capital, such as receivables sales.

Any acquisitions or divestitures we make may not be successful or achieve the expected benefits.

We regularly consider and evaluate opportunities to acquire assets, companies and operations, as well as constantly review our portfolio of projects and assets in operation. There can be no assurance that we will be able to successfully integrate any acquired assets, companies or operations, nor guarantee success in connection with any divestment or sale of an operational or non-operational project or asset. In addition, any additional debt we incur to finance an acquisition may materially and adversely affect our financial position and results of operations. If future acquisitions are significant, they could change the scale of our business and expose us to new geographic, political, operating and financial risks. Similarly, any divestitures we make may not have the anticipated positive impacts and could lead to an impairment charge or other material adverse effects on our business, financial position, and results of operations.

Changes in the assumptions underlying the carrying amount of certain assets could result in impairment charges.

We periodically test whether our tangible and intangible assets have suffered any impairment, in accordance with the accounting policy stated in our consolidated financial statements. If our estimates of the recoverable amount of asset change or are inaccurate, we may determine that impairment charges are necessary. While impairment does not affect reported cash flow, the decrease in the recoverable amount determined could have a material adverse effect on our results of operations. Assurances cannot be given as to the absence of significant impairment charges in future periods, particularly if market conditions deteriorate.

We might not be able to pay the principal and interest on our debt obligations if they are accelerated due to the noncompliance with the restrictive covenants and clauses of our debt contracts.

Any default on the contracts governing our debts that is not remedied or waived by our lenders or noteholders could result in the acceleration of our obligation to pay the outstanding amounts. If we are unable to generate sufficient cash flow from our operations or secure the necessary resources to make the principal and interest payments on our debts as a result of such acceleration, our business, financial position, credit ratings and results of operations could be materially and adversely affected. For more information on restrictive covenants in our debt contracts, see “Operating and financial review and prospects—Liquidity and Capital Resources—Debt.”

Any tax-related investigations carried out by federal, state or local governments may result in a material impact on our business, results of operations and financial condition.

We may be subject to tax investigations by authorities arising from our actions or omissions, as well as those of our customers. Such investigations have the potential to materially and adversely impact on our results and operations. Such investigations may lead to significant legal and financial consequences, including fines, penalties, and reputational damage. We may not be able to identify and address potential compliance issues, implement robust internal controls, and foster a culture of transparency and accountability with our customers.

In that regard, in 2023, Nexa cooperated with the investigation carried out by the Fiscal Office of the State of Minas Gerais and the Public Ministry of Minas Gerais (the “MG Authorities”) of the practices of certain of our former customers with respect to commercial and value added tax (“VAT”), as well as our relationship with such former customers, that could result in liabilities for all parties involved in the commercial relationship. In the third quarter of 2023 and the first quarter of 2024, Nexa and the MG Authorities reached a resolution pursuant to which Nexa, without admitting primary responsibility for the resolved claims, agreed to make certain tax payments, including interest and penalties, to the State of Minas Gerais on behalf of certain former customers that allegedly failed to properly comply with their tax obligations. This resolution concluded with the MG Authorities' investigation with respect to the Company. During 2024 the Company fulfilled its obligations under the installment plan related to the agreement and does not expect any further developments or provisions with respect to VAT matters. For more information about this investigation and its resolution, see “Additional Information—Legal Proceedings—Other legal proceedings.” For information on the financial effects of the resolution, see Note 9(iv) to our consolidated financial statements. The effects of any future tax-related investigations may have a material impact on our business and financial condition.

Risks related to our Mineral Reserves and Resources

Our estimates of Mineral Reserves and Resources may be materially different from the total mineral quantities we actually recover, and changes in metal prices, operating and capital costs, and other assumptions used to calculate these estimates may render certain Mineral Reserves and Resources uneconomical to mine.

There is a degree of uncertainty attributable to the estimation of Mineral Reserves and Resources. Until Mineral Reserves and Resources are actually mined and processed, the quantity of metal and grades must be considered as estimates only and no assurance can be given that the indicated levels of metals will be produced. In making determinations about whether to advance any of our projects to development, we must rely upon estimated calculations for the Mineral Reserves and Mineral Resources and grades of mineralization on our properties.

The estimation of Mineral Reserves and Resources is a subjective process that is partially dependent upon the judgment of the Qualified Persons preparing such estimates. The process relies on the quantity and quality of available data and is based on knowledge, mining experience, statistical analysis of drilling results and industry practices. Valid estimates made at a given time may significantly change when new information becomes available.

Our estimates of Mineral Reserves and Resources are based on geological interpretation and statistical inferences or assumptions drawn from drilling and sampling analysis made as of the date of such estimates. We periodically update our Mineral Reserves and Resources estimates based on the conclusions of the relevant Qualified Persons with respect to new data from exploratory and infill drilling, results from technical studies and the experience acquired during the operation of the mine and metallurgical processing, as well as changes to the assumptions used to calculate these estimates.

Several of the assumptions used to calculate these estimates, including the market prices of commodities and foreign exchange rates, operating and capital costs and mining and metallurgical recovery rates, among others, can greatly fluctuate, which may result in significant changes to our current estimates. These changes may also render some or all of our proven and probable Mineral Reserves and Measured and Indicated Mineral Resources uneconomic to exploit and may ultimately result in a reduction of Mineral Reserves and Resources.

In addition, Inferred Mineral Resources are subject to significant uncertainty regarding their existence, grade, and economic and legal feasibility. There is no assurance that any part of estimated Inferred Mineral Resources will be upgraded to a higher category or that any Mineral Resources not already classified as Mineral Reserves will be reclassified as Mineral Reserves. Future exploration, technical studies, or economic assessments may not support the conversion of these Mineral Resources estimates to Mineral Reserves, which could materially and adversely impact our results of operations and finances.

We depend on our ability to replenish our Mineral Reserves for our long-term viability.

Mineral Reserves data is only indicative of future results of operations at the time the estimates are prepared and are depleted over time as we conduct our mining operations. We use several strategies to replenish and increase our Mineral Reserves that are depleted, including exploration activities and the acquisition of mining concessions. If we are unable to replenish our Mineral Reserves or to convert and develop our Mineral Resources, our business, results of operations and prospects would be materially and adversely affected.

Our mineral exploration efforts are highly speculative in nature and may be unsuccessful.

Mineral exploration is highly speculative in nature, involves many uncertainties and risks and may be unsuccessful. It is performed to demonstrate the dimensions, position and mineral characteristics of mineral deposits, estimate Mineral Reserves and Resources, assess amenability of the deposit to mining and processing scenarios and estimate potential deposit value.

Substantial expenditures are required to establish proven and probable Mineral Reserves, to determine processes to extract the metals and, if required, to construct mining and processing facilities and obtain permits to carry on mining activities. Therefore, once mineralization is discovered, it may take several years from the initial exploration phases and Mineral Resources determination before production is possible, if at all, during which time the project's feasibility may change adversely.

Health, safety and environmental risks

We are exposed to health, safety and environmental risks in our operations, and we may not be able to prevent accidents from happening.

Working underground in mines, in tailings' dams and all of our activities are inherently risky, presenting potential health, safety, industrial, environmental and other risks for our operations, employees and communities within which we operate. Even though safety is the number one priority in all of our operations, we cannot guarantee that accidents will not happen, as they have in the past, which could cause substantial negative impact to our results of operations and reputation. See "Environmental, Social and Governance (ESG)—Nexa Materiality Matrix—Health, safety and well-being".

The collapse of dams, dry tailings or other geotechnical structures may cause severe damages, including personal, property, reputational, environmental damages, and loss of life.

We own a significant number of dams, dry stacking disposal facilities and other geotechnical structures, which may present higher stability risks, especially related to liquefaction. We cannot guarantee that our safety measures will be sufficient and the collapse of any of these structures could cause significant loss of life, personal, property and environmental damage, as well as material adverse effect to our business, operations and reputation.

Health, safety and environmental laws and regulations, including regulations pertaining to adverse weather events, may increase our costs of doing business, restrict our operations or result in the imposition of fines or revocation of permits.

Our mining and smelting activities are subject to Brazilian and Peruvian laws and regulations, including health, safety and environmental matters. In January 2023, the Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 (the "Directive") entered into force. The Directive modernizes and strengthens the rules concerning certain social and environmental information that the Company has to report, ensuring that investors and other stakeholders can accurately assess the Company's social and environmental impact. European Union Member States, including Luxembourg, had until July 2024 to adopt the provisions of the Directive into their national law. On March 29, 2024, the draft bill 8370 (the "CSRD Draft Bill") was submitted to the Luxembourg parliament. The CSRD Draft Bill shall turn the Directive's provisions regarding corporate sustainability reporting (the "CSRD") and Commission Delegated Directive 2023/2775 regarding the adjustments of the size criteria for micro, small, medium-sized and large undertakings or groups into national law. In line with the CSRD, the main objective of the CSRD Draft Bill is to replace the existing legal regime regarding disclosure of non-financial and diversity information by certain large undertakings and groups, in particular by enhancing the existing rules on sustainability reporting and gradually extending them to a greater number of undertakings. While for the financial year 2024, only EU public interest entities (including listed entities) with more than 500 employees, which are large entities or parent companies of a large group, had to comply with CSRD requirements, the scope of entities will be extended for the financial year 2025 to large EU non-listed entities and EU non-listed parent companies of a large group exceeding at least 2 of the 3 thresholds: (i) 250 employees, (ii) a net turnover of €50 million; and (iii) a balance sheet total of €25 million. As a result, the Company will be required to comply with reporting obligations starting in 2026 with respect to the accounts for the fiscal year ending on December 31, 2025. Additional matters subject to legislation include, but are not limited to, transportation, mineral storage, water use and discharge, use of explosives, hazardous and other non-hazardous waste, and reclamation and remediation measures. Our operations are subject to periodic inspections and special inspections in certain circumstances by governmental authorities and consultation with local communities. In Peru, the Congress began a revision process of a law to prohibit economic activities in the headwaters of basins, which are currently considered vulnerable areas that require protection and mitigation measures. However, the revision process lost momentum and has shown no sign of progress to date. If adopted, this law could have a material impact on our projects in case any new projects were to occur in headwaters of basins. For more information about these Peruvian environmental regulations, see "Information on the Company—Regulatory matters—Peruvian regulatory framework—Environmental regulations". Compliance with these laws and regulations and new or existing regulations that may be applicable to us in the future could increase our operating costs and adversely affect our financial results of operations and cash flows.

Regulatory and industry response to adverse weather events or other controls on greenhouse gas emissions, including limits on emissions from the combustion of carbon-based fuels, controls on effluent and restrictions on the use of certain materials, could significantly increase our operating costs and affect our customers and suppliers. Ongoing international efforts to address greenhouse gas emissions consist of controlling activities that may increase the atmospheric concentration of greenhouse gases. International agreements, like the Paris Agreement, Kyoto Protocol and COP26, are in different stages of negotiation and implementation. The measures included in such agreements may result in an increase of costs related to the implementation of new controls aimed at reducing greenhouse gas emissions, the purchase of credits or licenses for atmospheric emissions and the monitoring and registration of greenhouse gas emissions generated by our operations. These measures could adversely affect our business, financial position and results of operations. In December 2024, Brazil officially enacted a new law to regulate the carbon market, creating a legal framework aimed at reducing greenhouse gas ("GHG") emissions and promoting sustainable development. This law introduces a structured carbon market, providing economic incentives for organizations to invest in reducing their carbon footprint and adopting green technologies. The key aspects of the law include: (i) establishment of the carbon market; (ii) creation of an emissions-cap and trade system; (iii) verification and reporting guidelines; (iv) compliance and penalties; (v) green projects and technology and (vi) market governance. In addition, the Brazilian government has initiatives to grant environmental licenses in connection with the license holder's commitment to reducing greenhouse gases, especially in the state of Minas Gerais. As health, safety, and environmental regulations, requirements, best practices and industry standards are evolving and becoming stricter in Brazil, we may incur increased expenditures for compliance with these increasingly demanding requirements.

Pursuant to applicable environmental regulations and laws, we could be found liable for all or substantially all the damage caused by mining activities at our current or former facilities or those of our predecessors at disposal sites. We could also be found liable for all incidental damage due to the exposure of individuals to hazardous substances or other environmental damage, all of which could significantly and negatively affect our reputation. We cannot assure shareholders that our costs of complying with current and future environmental and health and safety laws and regulations, including decommissioning and remediation requirements, and any liabilities arising from past or future releases of, or exposure to, hazardous substances will not materially and adversely affect our business, financial position and results of operations.

ESG issues, including those related to adverse weather events and sustainability, may have an adverse effect on our business, financial condition, and results of operations, could damage our reputation, and may increase costs.

Public interest and legislative pressure related to public companies' ESG practices may be material in numerous countries and jurisdictions and may continue to shift based on political conditions in the countries in which we operate and do business. If our ESG practices fail to meet regulatory requirements, our medium- and long-term ESG commitments, or the evolving expectations of groups of investors, customers, employees or other stakeholders in areas including environmental stewardship, support for local communities and community engagement, diversity, human capital management, employee health and safety, product quality, corporate governance and transparency, our reputation, brand and ability to attract and retain talent may be negatively impacted. Additionally, our customers and suppliers may be unwilling to continue to do business or partner with us.

Customers, consumers, investors and other stakeholders may focus on environmental issues, including adverse weather events and GHG emissions, dams, energy and water use, and other sustainability concerns. Concerns over the increasing severity of weather-related events may result in new or increased legal and regulatory requirements to reduce or mitigate impacts on the environment.

If we do not adapt to or comply with new regulations, or if we fail to comply with disclosure requirements and consequently fail to meet evolving regulatory, investor, industry or stakeholder expectations and concerns regarding ESG issues, investors may reconsider their capital investment in Nexa, and customers and consumers may choose to stop purchasing our products, which could have a material adverse effect on our reputation, business or financial condition.

In addition, our ESG practices and initiatives may result in increased operational costs, including monitoring and reporting costs, equipment costs, energy costs, and other costs to comply with our developing practices and initiatives. These additional costs could have a material impact on our business, results of operations and financial condition.

At the same time, certain political and regulatory developments, particularly in the United States, reflect a growing pushback against ESG and diversity initiatives, with some jurisdictions enacting policies that restrict or discourage ESG-related investment strategies and corporate initiatives. This could create additional challenges in balancing stakeholder expectations, potentially leading to legal, financial, or reputational risks if our ESG approach is perceived as misaligned with regulatory or investor sentiment in different markets.

Failure to meet ESG standards or achieve the Company's environmental and social related goals could adversely affect its business, reputation, brand, results of operations, and/or financial condition.

We disclose information about our environmental, social and governance goals and initiatives in our annual sustainability report, other non-financial reports, information provided on our website, press statements, and other communications. This disclosure includes voluntary commitments made by us regarding GHG emission reductions, water consumption, safety among others.

Execution and achievement of our ESG and GHG goals within the currently estimated investments, costs and expected timeline is subject to risks and uncertainties which include, but are not limited to, availability, development, and affordability of technology needed to keep our commitments; unplanned issues with design, operations, and technology; inability to obtain required permits or licenses; lack of necessary materials and parts; changing products to meet customer needs and their acceptance of environmentally sustainable supply chain solutions; shifts in public opinion and political leadership; our ability to follow new rules, taxes, orders, or regulations related to climate matters.

Natural disasters and increasing severity of weather-related events could affect our business.

Natural disasters could significantly damage our mining and production facilities and infrastructure and may cause a contraction in sales to countries adversely affected due to, among other factors, power outages and the destruction of industrial facilities and infrastructure. In particular, the Central Andean region, where two of our mines are located, is prone to mudslides and earthquakes of varying magnitudes. Due to the El Niño and La Niña weather phenomena, Peru typically experiences extreme weather events that lead to flooding and mudslides, and which could adversely affect our operations. In the past, extreme flooding and mudslides in Peru have interrupted the supply of metal concentrates from our mines and the supply of zinc products to our plants. In addition, Brazil has been experiencing increasingly unpredictable and severe weather events, including historically heavy rainfall in multiple consecutive years. The physical impact of adverse weather events on our business remains uncertain, but we are likely to experience changes in rainfall patterns, increased temperatures, water shortages, rising sea and river levels, lower water levels in rivers due to natural or operational conditions, increased storm frequency and intensity as a result of increasing severity of weather-related events, which may adversely affect our operations. For example, Aripuanã faced intense fires in its surrounding areas due to the severity of the drought season in the state of Mato Grosso. Our local team effectively responded to these events ensuring the safety and stability of operations, but we cannot guarantee that any future natural disasters or events will not adversely affect our operations. Although we have certain insurance policies covering damage caused by natural disasters, extensive damage to our properties and facilities and staff casualties due to natural disasters may not be covered by our insurance policies and/or could materially and adversely affect our ability to conduct our operations and, as a result, reduce our future operating results.

In addition, the potential physical impact of adverse weather events on our operations is highly uncertain and would be particular to the geographic circumstances of our facilities and operations. It may include changes in rainfall patterns, water shortages, forest fires, rising sea and river levels, changing storm patterns and intensities and changing temperatures. These effects may materially impact the cost, production and financial performance of our operations.

Global or regional health considerations, including the outbreak of a pandemic or contagious disease, have impacted and could continue to impact our business, financial condition and results of operations.

Pandemics or health crises could have significant impacts, including disruption to financial markets, rising inflation, and increased volatility due to market expectations for a global recession. The outbreak of contagious diseases, or future pandemics and public crises could present risks to our operations (including the ability of employees to be physically present at work), employee health and safety, mandatory operational closures and general macroeconomic activity, including international market prices for the metals we produce, as well as have a severe impact to our business, customers, or supply chain. This impact could continue for an extended period of time or impact our financial condition and results of operations and continued weak or worsening economic conditions could negatively impact demand for our products.

Political, economic, social and regulatory risks

Political, economic and social conditions in the countries in which we have operations or projects, or in which we do business, could adversely impact our business, financial condition results of operations and the trading price of our securities.

Political, economic and social conditions in the countries in which we have operations or projects, or in which we do business, may negatively affect our financial performance. Our business, financial position and results of operations may be affected by the general conditions of the Peruvian, Brazilian and other national political conditions, economies, economic recessions, price instability, exchange rate volatility, inflation, interest rates, and domestic regulatory and taxation policies. There can be no assurance that the countries in which we operate or do business will not face political, economic or social problems in the future or that these problems will not increase the volatility of the price of securities of issuers with operations in those countries, like us, or interfere with our ability to operate and service our indebtedness. For additional information, see "Operating and Financial Review and Prospects—Overview—Key factors affecting our business and results of operations."

In all these countries, we are exposed to various additional risks over which we have no control, such as social unrest, bribery, cyberattacks, extortion, corruption, robbery, sabotage, kidnapping, civil strife, terrorism, acts of war and guerilla activities. These issues may adversely affect the economic and other conditions under which we operate in ways that could have a material and adverse effect on our business.

The current Brazilian political landscape may result in difficulties for the Brazilian federal government to obtain a majority of votes in the National Congress, which may lead to delays in the approval or the non-approval of certain economic measures, which may adversely affect Brazil's economic growth and inflationary environment. These instabilities in Brazil may impair our business, financial condition or results of operations or adversely affect the market value of our securities. Similarly, in recent years, Peru has experienced great political turmoil, including presidential coups and popular unrest, protests and violence. This has a direct impact on the economic outlook in the country. Inflation reduced economic growth and fluctuations in the Sol exchange rate may adversely affect our financial condition and results of operations. Political instability in Peru may also have an impact on relevant legislation and regulation that affects our business in Peru.

Changes in global trade policy could adversely affect our business.

Political leaders in the United States and in other countries have been elected on protectionist platforms, fueling doubts about the future of global free trade. The U.S. government has indicated its intent to alter its approach to international trade policy and in some cases to renegotiate, or potentially terminate, certain existing bilateral or multi-lateral trade agreements and treaties with foreign countries and has made proposals and taken actions related thereto. In addition, the U.S. government has recently imposed tariffs on certain foreign goods, including steel and aluminum and has indicated a willingness to impose tariffs on imports of other products. Some foreign governments, including China, have instituted retaliatory tariffs on certain U.S. goods and have indicated a willingness to impose additional tariffs on U.S. products. Other countries, including Mexico, have threatened retaliatory tariffs on certain U.S. products. Global trade disruption, significant introductions of trade barriers and bilateral trade frictions, together with any future downturns in the global economy resulting therefrom, could adversely affect our financial performance. Any global trade disputes may have negative effects on the economies and economic prospects of the countries in which we operate, which in turn may negatively affect our business and results of operations.

Recent and potential changes in commercial and mining laws, including trends like resource nationalism, may significantly impact our mining operations.

Changes to the Brazilian and Peruvian regulatory framework that could be enacted in the future may result in an increase in our expenses, particularly mining royalties and tax-related expenses, among others. Any changes in the interpretation of Brazilian or Peruvian mining laws and regulations, including changes to our concession agreement and changes in commercial rules and protections, may increase our compliance, operational or other costs. In 2012, Peru launched REINFO (*Registro Integral de Formalización Minera*), a registration program that grants temporary permits to operators of informal mining activities while operators wait for formal approval. During this period, such operators are not required to adhere to the regulations governing the operations of formally approved mining operations, such as ours. Such regulations include the prohibition of mining in concession areas without the concession holder's approval. The program has become increasingly popular in recent years and has been extended several times. The last extension occurred in December 2024, as a result of a protest by miners benefitting from the granting of these temporary permits. The establishment of REINFO has increased the presence of informal mining activities in Peru, including the mining of copper. The institutionalization of informal mining activities by the Peruvian government may significantly and adversely affect our operations and projects.

In December 2022, a new tax on mining operations was approved in the state of Mato Grosso, where the Aripuanã project is located. The Brazilian Supreme Court declared the tax unconstitutional, however in December 2023, a new tax replacing the previous tax was approved by the state of Mato Grosso. We continue to follow and support the discussions about the constitutionality of the new regulation, carried out by an association of the Mining Sector, but cannot guarantee that the outcome will be favorable to Nexa.

In addition, there is a risk that resource nationalism in Brazil or Peru may result in operational limitations, local content requirements, and even expropriations and nationalizations. For additional information, see "Information on the Company—Regulatory matters—Brazilian regulatory framework—Mining rights and regulation of mining activities."

Our mineral rights may be terminated or not renewed by governmental authorities.

Our business is subject to extensive regulation in Brazil and Peru, including with respect to acquiring and renewing the required authorizations, permits, concessions and/or licenses from the relevant governmental regulatory bodies. We have obtained, or are in the process of obtaining, all material authorizations, permits, concessions and licenses required to conduct our mining and mining related operations.

In Brazil, we may need to renew exploration authorizations related to our Brazilian mining operations 60 days prior to their expiration date if we determine that we continue to have an economic or business interest in the area. If we fail to demonstrate the existence of technical and economically viable mineral deposits in an area covered by an exploration authorization, we may be required to return it to the ANM. The ANM may then grant exploration authorizations to other parties that may conduct other mineral prospecting activities at said area. With respect to mining concessions, there is no renewal requirement once we have obtained such concession. However, we must continue to assess the mineral potential of each mining concession to determine if the costs of maintaining the related exploration authorizations and mining concessions are justified by the results of operations to date. If such costs are not justified and we abandon the mine or suspend the mining activities without the formal consent of the regulatory authority for a period of more than 180 days, we may lose the respective mining concessions. Alternatively, we may elect to withdraw or assign some of our exploration authorizations or mining concessions.

In Peru, once mineral concessions are granted, they may not be revoked if the titleholder complies with two obligations, (1) payment of an annual fee and (2) either achievement of the minimum annual production target or expenditure of the equivalent amount in exploration or investments before the statutory deadline. If the production, expenditure or investment targets are not met, a statutory penalty must be paid. Accordingly, mineral concessions will lapse automatically if any of these obligations are not met within the statutory period. Mining concessions in Peru may be terminated if the concessionaire does not comply with its obligations.

These authorizations, permits, concessions and environmental licenses are subject to our compliance with conditions imposed and regulations promulgated by the relevant governmental authorities. While we anticipate that all required authorizations, permits, concessions and environmental licenses or their renewals will be granted as and when sought, there is no assurance that these items will be granted as a matter of course, and there is no assurance that new conditions will not be imposed in connection with such renewals. If we were to violate any of the foregoing laws and regulations or the conditions of our concessions, authorizations, and environmental licenses, including the failure to remove all residents who are within the self-rescue zone, we may be subjected to substantial fines or criminal sanctions, revocations of operating permits or licenses and possible closings of certain of our facilities.

Our operations depend on our relations and agreements with local communities, and new projects require carrying out a prior consultation procedure.

There are several local communities that surround our operations in Brazil and Peru, most of which we have entered into agreements with that provide for the use of their land for our operations. We also interact with regional and local governments and depend on our close relations with local communities and such governments to carry out our operations. From time to time, we may experience disputes with local communities and if our relations with the local communities and such governments were to deteriorate, or the local communities do not comply with the existing agreements or renew them upon expiration, it could have a material adverse effect on our business, reputation, properties, operating results, financial position or prospects. In addition, a disruption in the relations between the local communities, governments and other parties may affect us indirectly. For additional information, see "Mining Operations—Atacocha—Operations and infrastructure."

We also may face certain risks in relation to artisanal mining near the areas in which we operate. The increase of artisanal mining activity or the failure of these artisanal miners to abide with our existent agreement may have an adverse effect on the development of our operations. For example, see "Mining Operations—Aripuanã—History."

Furthermore, to develop new projects in the countries in which we operate on land owned by, or in the possession of, third parties, we need to reach an agreement with such third parties to use that land. Any delay or failure to reach such agreements or obtain governmental approvals for our new projects could result in a material and adverse effect on our business, properties, operating results, financial position or prospects.

Changes in tax laws, and any related tax agreements we have entered into or may enter into with local governments, may increase our tax burden and, as a result, could adversely affect our business, financial position and results of operations.

The Brazilian, Peruvian and Luxembourg governments from time to time implement changes to tax laws and regulations. Any such changes, as well as changes in the interpretation of such laws and regulations, or changes to former precedents on tax decisions by authorities or courts, may result in increases to our overall tax burden, which would negatively affect our profitability. Moreover, some tax laws may be subject to controversial interpretation by tax authorities, including, but not limited to, the regulation applicable to corporate restructurings. In the event an interpretation different than the one on which we based our transactions prevails, we may be adversely affected.

In addition, as a result of the VAT tax benefit adopted by Minas Gerais State on the commercialization of several products, including metallic zinc, there has been increased scrutiny by the tax authorities of companies incorporated in this State. For more information about the VAT tax benefit, see "Information on the Company—Regulatory Matters—Brazilian regulatory framework—Royalties and other taxes on mining activities." See also "Additional Information—Legal Proceedings" for information about the investigation by the Fiscal Office of the State of Minas Gerais and the Public Ministry of Minas Gerais relating to the VAT-related practices of certain of Nexa's former customers, as well as Nexa's relationship with such former customers.

On January 1, 2024, new transfer pricing regulations came into effect in Brazil, which adopted an arm's length principle to transfer pricing similar to that of the Organization for Economic Co-operation and Development (OECD). Additionally, a substantial VAT tax reform for indirect and consumption taxes that eliminates existing federal, state and municipal indirect taxes and creates three classes of taxes was approved in Brazil in December 2023 and will begin as of 2026. The reform's goals are simplification, competitiveness and uniformization of legislation, and a long and gradual transition period is expected from 2026 to 2033. On January 16, 2025, *Lei Complementar* (Complementary Law) 214 was approved, which lays the foundation for tax reform and regulates the Constitutional Amendment 132/23 and institutes the Tax on Goods and Services (IBS), the Social Contribution on Goods and Services (CBS), the Selective Tax (IS) and creates the IBS Management Committee. Complementary Law 214 requires careful analysis of its rules and impact, especially given the significant changes that were discussed in each house of Congress. Therefore, the Company is currently assessing the impact of the legal framework on its operations and there is no assurance that these new regulations will not increase taxes for Nexa and will not materially and adversely affect our business.

Additionally, the OECD's Pillar Two tax reform, which establishes a global minimum effective tax rate of 15%, became effective in Luxembourg on January 1, 2024. See "Taxation—Luxembourg tax considerations" for more information about this tax regime and its potential impact on Nexa. Brazil enacted Pillar Two legislation during 2024, which went into effect on January 1, 2025. Peru has not yet enacted the Pillar Two legislation, however adopting this regime could have a potential impact on our business, financial position and results of operations. During 2024, we performed an assessment of our potential exposure to Pillar Two income taxes based on the OECD transitional safe harbor rules. This assessment was performed based on the interim financial information of the constituent entities in the group. As a result of the assessment performed, we determined that the jurisdictions where we operate qualify for at least one of the transitional safe harbor rules, and management is not currently aware of any circumstances under which this might change but cannot assure that it will not materially and adversely affect our business.

Further, we are engaged in ongoing tax-related matters with the SUNAT related to the stability agreement of Cerro Lindo's operations. The Peruvian tax authority issued unfavorable tax decisions against the Company for the years ended December 31, 2014, 2015, 2016 and 2017. In 2024, SUNAT concluded the tax audit for the year ended December 31, 2018. and recognized that part of the production was within the stabilization criteria, thus decreasing the contingency compared with the previous years. As of the date of this annual report, SUNAT is now auditing the year-ended December 31, 2019. Discussions with SUNAT are expected to evolve in 2025, including potential audits of the years-ended December 31, 2020, and 2021, which are the last fiscal years covered by the stability agreement. Although the Company continues to believe that there are legal grounds to obtain favorable outcomes in these matters, Nexa may have to pay the disputed amounts under discussion to continue the legal process either in judicial or international arbitration levels which may impact Nexa's results, cash flow and liquidity. For more information, see "Additional Information—Legal Proceedings" and Note 11(d) to our consolidated financial statements.

In addition, we may face the risk that SUNAT does not recognize the deductibility of certain expenses in our calculation of Corporate Income Tax, which could lead to tax assessments against us.

The Brazilian, Peruvian or Luxembourg governments may implement additional changes to tax regulations in the future, which could adversely affect our business, financial position, and results of operations.

Our business, financial position and results of operations may be adversely affected by inflation.

Certain countries in which we operate are still experiencing or have experienced high inflation in the past and may continue to experience high inflation in the future, which may impact on our operational costs and domestic demand for our products. While global inflationary pressures decreased in 2024 compared to 2023, they are expected to increase in 2025 due to potential international trade conflicts as the United States imposes import tariffs on various countries, such as, Mexico, Canada and China, and those countries impose retaliatory measures, thereby increasing prices globally. Despite these challenges, central banks are expected to continue efforts to maintain inflation within or close to the established targets. These pressures have already impacted on our operating margins through cost increases and may increase the cost of financing and impact on our ability to access international financial markets. Further, government policies in the countries where we operate could materially and adversely affect their overall national economies, which in turn may materially and adversely affect us. Furthermore, as we follow international market prices, we may not be able to adjust the prices we charge our customers to offset potential effects of inflation on our cost structure. In addition, although the functional currency for our Peruvian operations is the U.S. dollar, high inflation rates could still increase our operating costs, further adversely impacting our operating margins if we are not able to pass these increased costs on to consumers.

We are subject to anti-corruption, anti-bribery and anti-money laundering laws and regulations in various jurisdictions. Any violations of any such laws or regulations could have a material adverse impact on our reputation and results of operations and financial position.

We are subject to anti-corruption, anti-bribery, anti-money laundering and other international laws and regulations and are required to comply with the applicable laws and regulations of Brazil, Peru, Luxembourg, Canada and the United States, among others. In addition, we are subject to economic sanctions regulations that restrict our dealings with certain sanctioned countries, individuals and entities. Our governance and compliance processes may not timely identify or prevent future breaches of legal, accounting or governance standards. We may be subject to instances of fraudulent behavior, corrupt practices and dishonesty by our affiliates, employees, directors, officers, partners, agents and service providers. Any violations by us of anti-bribery and anti-corruption laws, sanctions regulations or other standards could have a material adverse effect on our business, reputation, results of operations and financial position.

Political and social opposition to mining activities generally in the regions we operate could adversely impact our business and reputation.

Disputes with communities where we operate may arise from time to time. In some instances, our operations and mineral reserves are located on or near lands owned or used by indigenous people or other groups of stakeholders. Some of our mining and other operations are in territories where title may be subject to disputes or uncertainties, or in areas claimed for agriculture or land reform purposes, which may lead to disagreements with organized social movements, local communities and the government. Further social or political changes, particularly in Peru and Brazil, may lead to a potential increase in these claims. We may be required to consult and negotiate with these groups as part of the process to obtain licenses required to operate, to mitigate impact on our operations or to obtain access to their lands. Disagreements or disputes with local groups, including indigenous groups, organized social movements and local communities could cause delays or interruptions to our operations, adversely affect our reputation or otherwise hamper our ability to develop our reserves and conduct our operations. Protesters have taken actions to disrupt our operations and projects, and they may continue to do so in the future, which may harm our operations and could adversely affect our business. In recent years, Peru has experienced protests against mining projects in several regions. On several occasions, local communities have opposed these operations and accused them of polluting the environment and hurting agricultural and other traditional economic activities. Social demands and conflicts could have a material adverse effect on our business and results of operations and the economy in general of the countries in which we operate.

Differing interpretations of agency regulations or court rulings and the application of such laws and regulations could result in unintended non-compliance and may have a material effect on our business, results of operations, and financial position.

The courts in some of the jurisdictions in which we operate may offer less certainty as to the judicial outcome of legal proceedings or a more protracted judicial process than is the case in more established economies. Businesses can become involved in lengthy court cases over simple issues when rulings are not clearly defined, and the poor drafting of laws and excessive delays in the legal process for resolving issues or disputes compound such problems. In addition, there may be limited or no relevant case law providing guidance on how courts would interpret such laws and the application of such laws to our contracts, joint ventures, licenses, license applications or other legal arrangements. Accordingly, there can be no assurance that contracts, joint ventures, licenses, license applications, tax agreements, or other legal arrangements will not be adversely affected by the actions of government authorities and the effectiveness of and enforcement of such arrangements in these jurisdictions. Moreover, the commitment of local businesses, government officials and agencies and the judicial system in these jurisdictions to abide by legal requirements and negotiated agreements may be more uncertain and may be susceptible to revision or cancellation, and legal redress may be uncertain or delayed. These uncertainties and delays could have a material adverse effect on our business and results of operations. Finally, certain interpretations of regulations and laws may lead to increasing governmental fines and sanctions, even for non-material violations of these rules and regulations. If Nexa is deemed to be in violation of agency regulations or court rulings and is required to make payments in connection with the alleged violations, this may have a material impact on our business, results of operations and financial position.

Regulation of other activities.

We are subject to mining and environmental regulation related to, among other activities, the use of explosives, fuel storage, controlled substances, discharges, telecommunications, archeological remains and energy concessions. We are also subject to more general legislation on data privacy, labor, occupational health and safety, and peasant and indigenous communities, among others, that may adversely affect our business. See “Information on the Company—Regulatory matters—Brazilian regulatory framework” and “Information on the Company—Regulatory matters—Peruvian regulatory framework.”

Risks relating to our corporate structure

VSA has substantial control over us, which could limit our shareholders’ ability to influence the outcome of important corporate decisions.

As of March 27, 2025, VSA owns 64.68% of our issued and outstanding common shares. As a result, VSA can influence or control matters requiring approval by our shareholders, including the election of directors, the allocation of profits, the appointment of external auditors and the approval of mergers, acquisitions or other extraordinary transactions. VSA may also have interests that differ from those of our other investors and may vote in a way that conflicts with or is adverse to the interests of our other investors. Additionally, VSA’s control over us may result in a lack of trading liquidity.

In addition, we have entered into several shared services contracts and similar agreements with other entities within the Votorantim Group in order to achieve operational economies of scale. Since we rely on the Votorantim Group for the negotiation, renewal and extension of these agreements, there can be no assurances that we will always have access to the services procured pursuant to these agreements at the same prices and conditions. See “Share ownership and trading—Related Party Transactions.”

Dividends or other distributions paid by us on our common shares will generally be subject to Luxembourg withholding tax.

Any dividends or other distributions paid by us on our common shares will be subject to a Luxembourg withholding tax at a rate of 15.0% unless an exemption or reduction in rate applies. The withholding tax must be withheld from the gross distribution and paid to the Luxembourg tax authorities. Under certain circumstances, distributions such as share capital reductions or share premium reimbursements may not be subject to withholding tax, but there are no assurances that we will be able to make such distributions in the future. See “Additional Information—Taxation—Luxembourg tax considerations—Shareholders.”

The rights of our shareholders, and the responsibilities of VSA as our controlling shareholder, are governed by Luxembourg law and are subject to certain Brazilian law provisions, and differ in some respects from the rights and responsibilities of shareholders under the laws of other jurisdictions, including the United States and Canada, and shareholders may have more difficulty protecting their interests than they would as shareholders of a U.S. corporation.

Our corporate affairs are governed by our articles of association and by the laws governing limited liability companies organized under the laws of Luxembourg, as well as such other applicable local law, rules and regulations, and certain provisions of Brazilian corporate law. The rights of our shareholders and the responsibilities of VSA as our controlling shareholder and of our directors and officers under Luxembourg law are different from those applicable to a corporation incorporated in the United States or Canada. There may be less publicly available information about us than is regularly published by or about U.S. or Canadian issuers. Also, Luxembourg regulations governing the securities of Luxembourg companies may not be as extensive as those in effect in the United States or Canada, and Luxembourg law and regulations in respect of corporate governance matters may not be as protective of non-controlling shareholders as corporation laws in the United States or Canada. Therefore, shareholders may have more difficulty protecting their interests in connection with actions taken by us, our directors and officers or our principal shareholders than they would as shareholders of a corporation incorporated in the United States or Canada.

Our ability to pay dividends or other distributions and repurchase shares is subject to several factors and conditions.

The determination to pay dividends and the payment of dividends or other distributions (including reimbursements of share premium) will be subject to the approval of our Board of directors and/or our shareholders, as applicable, and will depend on a number of factors, including, but not limited to, our cash balance, cash flow, earnings, capital investment plans, expected future cash flows from operations, our strategic plans and cash dividend distributions from our subsidiaries, as well as restrictions imposed by applicable law and contractual restrictions (although as of the date of this annual report there are no contractual restrictions on our ability to pay dividends or other distributions to our shareholders), LME metal prices and other factors our Board of directors may deem relevant at the time. Luxembourg law also imposes certain requirements regarding distributions. For additional information, see "Share ownership and trading—Distributions."

We are a holding company and have no material assets other than our ownership of shares in our subsidiaries. When we pay a dividend or other distribution on our common shares, we generally cause our operating subsidiaries, including subsidiaries that are not wholly-owned by Nexa, to make distributions to the parent company in an amount sufficient to fund any such dividends or distributions to Nexa's shareholders. Although as of December 31, 2024, there were no material contractual restrictions on our subsidiaries' ability to make distributions, their ability to do so is subject to, among other things, their capacity to generate sufficient earnings and cash flow and may also be affected by statutory accounting and tax rules in Brazil and Peru.

The determination to repurchase shares of our common stock is discretionary. Our ability to repurchase shares will depend on a number of factors, including, but not limited to, metal prices, restrictions imposed by applicable law, contractual restrictions, and other factors our Board of directors may deem relevant at the time. Our decision to repurchase shares could have a negative effect on the Company's free cash flow and/or the liquidity of our common stock.

It could be difficult for investors to enforce any judgment obtained outside Luxembourg against us or any of our associates.

We are organized under the laws of Luxembourg. Furthermore, certain of our directors and officers reside outside the United States and Canada and most of their assets are located outside the United States and Canada. Most of our assets are located outside the United States or Canada. As a result, it may not be possible for investors to effect service of process upon us or our directors and officers within the United States, Canada, or other jurisdictions outside Luxembourg or to enforce against us or our directors and officers, judgments obtained in the United States, Canada or other jurisdictions outside Luxembourg. Because judgments of United States or Canadian courts for civil liabilities based upon the U.S. federal securities laws or Canadian securities laws may only be enforced in Luxembourg if certain requirements are met, investors may face greater difficulties in protecting their interest in actions against us or our directors and officers than would investors in a corporation incorporated in a state or other jurisdiction of the United States or Canada.

I. INFORMATION ON THE COMPANY

BUSINESS OVERVIEW

Overview

We are a leading large-scale, low-cost integrated metals producer, zinc being our main product, with over 65 years of experience developing and operating mining and smelting assets in Latin America.

We own and operate four long life polymetallic mines, two located in the Central Andes of Peru, one located in the state of Minas Gerais in Brazil, and one located in the state of Mato Grosso in Brazil. We also own and operate one low-cost polymetallic mine in the Central Andes of Peru.

The majority of our operations are large-scale, modern, mechanized mines. Our mines are located in close proximity to each other or to our smelters, creating synergies and operational efficiencies. Two of our mines, Cerro Lindo in Peru and Vazante in Brazil, are among the top 30 largest zinc-producing mines globally. Combined with our other mining operations, this placed us among the top five global zinc producers in 2024, according to Wood Mackenzie. In addition to zinc, which accounted for 50.5% of our mined metal production in 2024, measured on a zinc equivalent basis, we produce substantial amounts of copper, lead, silver and, to a lesser extent, gold as by-products, which reduce our overall costs to produce mined zinc.

We also own and operate one zinc smelter in Peru (Cajamarquilla) and two zinc smelters in Brazil (Três Marias and Juiz de Fora), which produce metallic zinc, zinc oxide and several by-products. In 2024, we were the fifth largest producer of refined zinc globally, according to Wood Mackenzie. Our smelters are the only units of their kind in Latin America (excluding Mexico), providing us with benefits from higher premiums in the region. Cajamarquilla is the only operating zinc smelter in Peru and was ranked as the fifth largest zinc smelter globally by production volume in 2024, according to Wood Mackenzie. Peru is the third largest producer of mined zinc in the world, ensuring long-term supply of zinc concentrates to Cajamarquilla. Given our proximity to concentrate producers (both to our own mines and third-party producers), we also benefit from freight parity.

In 2024, we successfully achieved our production, sales, costs and investment guidance despite a challenging global macroeconomic environment and production delays at Aripuanã. The persistence of high inflation and high interest rates, ongoing global conflicts, including the Russia-Ukraine war and the conflict in the Middle East, and uncertainties surrounding the performance of key sectors of the Chinese economy, significantly increased commodity price volatility. These factors contributed to a slowdown in global economic growth and intensified inflationary pressures throughout the year. We met our consolidated mining production guidance, with zinc, lead, and silver production within the annual guidance range, while copper production exceeded the upper end of the range, metal sales were in line with the mid-range of the guidance, and mining and smelting cash costs were in line with our guidance range.

Mining production increased in 2024 as compared to 2023, mainly driven by higher output at our Cerro Lindo, Aripuanã and Atacocha mines, despite lower production at Vazante and the sale of Morro Agudo. In the smelting segment, production also rose compared to 2023, largely due to increased production volumes at the Cajamarquilla smelter, supported by enhanced operational stability, reduced downtime, increased demand, and efficient logistics across our supply chain.

In 2024, zinc production decreased by 1.8% compared to 2023, mainly due to the sale of Morro Agudo and lower production at Vazante. Our mining operations produced 327.0 thousand tonnes of zinc contained in concentrates, 35.7 thousand tonnes of copper contained in concentrates, 69.3 thousand tonnes of lead contained in concentrates, 11,694.1 thousand ounces of silver and 36.0 thousand ounces of gold, for a total of 646.9 thousand tonnes of metal on a zinc equivalent basis (based on the average LME prices in 2024).

Total production (zinc metal + oxide) in 2024 increased 1.2% compared to 2023. Our smelters produced 594.7 thousand tonnes of zinc metal and oxide available for sale in different formats and sizes during 2024, along with by-products, including sulfuric acid, silver concentrate, copper cement and copper sulfate.

Our smelters primarily process zinc concentrate, 51.9% of the total zinc raw material consumption was sourced from our mines during 2024, while 48.1% was purchased from third parties or obtained as secondary raw material (excluding oxide). In 2024, the total production volume of the contained zinc in concentrates produced by our mines was processed by our own smelters, however, 0.7% was resold to a third-party customer due to a swap contract negotiation. All our copper and lead concentrates were sold to third parties. We market our products both in Latin America and globally, through our commercial offices in Luxembourg, the United States, Brazil and Peru. Additionally, we own energy assets (hydroelectric power plants) in both Brazil and Peru, which provide us with access to a reliable and competitive power supply.

The ramp-up activities at Aripuanã started in 2022 and continued throughout 2023. These activities progressed steadily in the first quarter of 2024, with a focus on increasing the plant throughput rate, improving concentrate grades, and maximizing metal recoveries. In June 2024, Aripuanã achieved a milestone by generating positive operational cash flow. The ramp-up phase was completed in June 2024. We continue to actively improve operational performance, with a particular focus on the tailings filter circuit. Although the circuit has significantly increased its capacity since production startup, it still faces challenges related to available capacity. To further enhance and sustain utilization capacity at optimal levels, we are adding a fourth filter, which is scheduled for delivery and installation in 2025. Commissioning is expected for the first quarter of 2026. This addition is expected to address current operational challenges while expanding filtering capacity. Additionally, we have been actively working to reduce the talc levels in the flotation circuit and have implemented several initiatives aimed at improving drainage, wetland enhancement, and dam basin cleanliness. These efforts are expected to improve control over key operational and environmental processes as we prepare for the 2025 rainfall season. In 2025, we also expect to continue focusing on increasing the plant throughput rate, improving concentrate grades, and maximizing metal recoveries.

On July 1, 2024, we sold the Morro Agudo Complex in Minas Gerais, Brazil for R$80 million (approximately US$16 million). Also, in the third quarter of 2024, we entered into agreements to sell our non-operational Peruvian subsidiary, Minera Pampa de Cobre S.A.C. (owner of the Chapi copper mine) as well as Compañía Minera Cerro Colorado S.A.C. (owner of the greenfield Pukaqaqa Project).

In the fourth quarter of 2024, our Board of Directors, through the Finance Committee, approved the first phase of the Cerro Pasco Integration Project, specifically the tailings pumping and piping system, following a recommendation from the Sustainability and Capital Projects (“SCP”) Committee. This strategic milestone aims to significantly extend the life of the mining complex through an increase in the tailing’s storage capacity. The investment plan includes the construction of a tailing’s treatment plant and its auxiliary structures at El Porvenir, along with the refurbishment of a 6 km tailings pipeline (mostly underground) connecting El Porvenir to Atacocha’s tailings storage facility. Detailed engineering has been concluded, and construction is planned to start in the second quarter of 2025.

On November 18, 2024, Nexa Resources Atacocha S.A.A., our subsidiary, completed a capital increase through new monetary contributions amounting to US$37 million. This capital increase is aimed at financing investments related to the development of the Cerro Pasco Integration Project and strengthening our financial and equity position. The shareholder subscription process took place in three rounds. At the beginning of the subscription process, Nexa Resources El Porvenir S.A.C. held 97.89% of Class A shares (with voting rights) and 36.66% of Class B shares (without voting rights) in Nexa Resources Atacocha S.A.A. By the end of the three subscription rounds, its holdings increased to 99.35% of Class A shares and 60.86% of Class B shares, further consolidating its position for a total stake of 82.08%. As a result, we also increased our total (direct and indirect) ownership of Nexa Resources Atacocha S.A.A., from 81.78% to approximately 83.00%, effective as of January 15, 2025.

On December 17, 2024, Nexa purchased 9,859,155 common shares of Tinka Resources Ltd. at a price of C$0.10 per share, increasing its ownership from 18.23% (or 71,343,053 common shares) to approximately 19.87% (or 81,202,208 common shares) of the issued and outstanding common shares of Tinka. Tinka holds 100% of the Ayawilca zinc-silver project, one of the largest zinc deposits in Peru.

In August 2024, we received the Gold Seal from the Brazilian GHG Protocol Program, awarded by the Fundação Getúlio Vargas. This recognition underscores our commitment to transparency and excellence in greenhouse gas emissions reporting, based on 2023 data. In 2024, for the fifth consecutive year, we were named one of the five most innovative companies in the Mining, Metallurgy, and Steel sectors by the Valor Inovação Brasil 2024 Awards, one of the most prestigious innovation awards in in Brazil, climbing 42 positions in the overall rankings. In September 2024, more than 3,500 employees across Peru and Brazil joined our Internal Workplace Accident Prevention Week 2024, underscoring out shared commitment to health and safety. In May 2024, we, in collaboration with the Brazilian Mining Association, Brazilian Mining Hub, and other mining companies in Brazil, we began discussions on structuring a decarbonization roadmap for the mining sector in Brazil.

In June 2024, we launched the ninth edition of our solid and recognized Mining Lab Challenge program, inviting innovative solutions from the global ecosystem to address five defined challenges across three main themes: decarbonization, circular economy, and productivity and security. In the early months of 2024, we supported approximately 30 families in Cerro Pasco by providing shelters to safeguard their livestock from frost, thereby improving ovine production quality in the Huancamachay community. This initiative was aimed at enhancing local economic development and underscoring our commitment to ESG principles and community development. In November 2024, as part of our ongoing decarbonization efforts, we installed Hydragen technology at the Vazante mine. This technology, designed to reduce carbon emissions in diesel engines and improve fuel efficiency, has shown promising preliminary results. Notably, it has led to fuel savings, a reduction in greenhouse gas emissions, and significant decreases in carbon monoxide, particulate matter, and temperature levels at the mining fronts. During the fourth quarter of 2024, as part of Nexa's circular economy initiatives, we advanced in the commercialization of jarosite residue by producing eco-friendly blocks and demonstrating their safety and mechanical resistance.

In December 2024, we completed a comprehensive study on the Life Cycle Assessment ("LCA") of Nexa's products. This analysis evaluated the environmental impact at each stage of the value chain, from raw material extraction through production, use, and disposal, following the cradle-to-gate approach. By assessing the inputs (materials and energy) and outputs (emissions and waste) at each stage, the LCA process provides valuable insights into opportunities for improvement, supports sustainable decision-making, ensures compliance with regulations, and enhances our corporate reputation. Also in December 2024, we completed the reengineering of 12 ZnO furnaces to operate using bio-oil, a significant milestone in advancing our sustainability targets. This initiative is expected to reduce our annual CO2 emissions.

In January 2025, we announced the adoption of a new dividend policy aimed at providing additional transparency and a consistent return to our shareholders while balancing financial flexibility. The policy outlines the distribution of annual dividends, subject to its governance framework and the availability of distributable amounts as per Luxembourg law. The annual dividend amount will be determined based on several factors, including: (i) our cash balance; (ii) free cash flow and earnings generated during the year; (iii) our leverage, measured by the Net Debt to adjusted EBITDA ratio; (iv) capital investment programs and other capital allocation decisions; (v) expected future cash flows from operations; (vi) market volatility; and (vii) strategic planning considerations. In line with these factors, Nexa targets an annual dividend of up to 20% of free cash flow pre-events, with a minimum payment of US$0.08 per common share.

In February 2025, as part of our ongoing commitment to adhere to best corporate governance practices, we updated our insider trading and disclosure policies. These enhancements reinforce our dedication to transparency and integrity, ensuring that we maintain the highest standards as a publicly traded company.

History

We commenced operating in 1956 under the name "Companhia Mineira de Metais", in the state of Minas Gerais, Brazil. After a series of restructurings in the subsequent fifty-eight years, in 2014, a new corporate governance model was implemented by our controlling shareholder VSA in the corporate group. The main consequence of this new corporate model was that the new governance structure demanded a higher level of empowerment and accountability of senior management, and the establishment of a Board of directors at each company. In addition, in connection with the implementation of the new corporate governance model, VSA's equity participations in Nexa CJM (formerly Votorantim Metais – Cajamarquilla S.A.) and Nexa Brazil (formerly Votorantim Metais Zinco S.A.) were transferred to Nexa Resources on June 18, 2014, and July 1, 2014, respectively.

In October 2017, we completed our initial public offering and listed our common shares on the New York Stock Exchange ("NYSE") and on the Toronto Stock Exchange ("TSX") under the ticker symbol NEXA. In connection with becoming a public company, VM Holding S.A. changed its corporate name to Nexa Resources S.A. and our subsidiaries Votorantim Metais—Cajamarquilla S.A., Votorantim Metais Zinco S.A. and Compañía Minera Milpo S.A.A. changed their corporate names to Nexa CJM, Nexa Brazil and Nexa Peru, respectively.

Following receipt of approval for a voluntary delisting of our common shares from the TSX in Canada, the last trading of our common shares on the TSX took place on November 30, 2021. Nexa received approval for the delisting following an internal assessment of the relative advantages and disadvantages associated with the listing of our common shares on the TSX. Nexa continues to be a reporting issuer in each of the provinces and territories of Canada following the delisting and continues to file in Canada and disseminate to Canadian resident holders of the common shares its continuous and periodic disclosure documents until such time as it ceases to be obligated to do so. Nexa intends to apply to cease to be a reporting issuer in Canada under Canadian securities laws upon being in a position to satisfy or obtain relief from applicable regulatory requirements.

Corporate structure and principal subsidiaries

Nexa CJM

Currently, Nexa Resources is the beneficial owner of 99.916% of the outstanding shares of Nexa CJM, and the remaining outstanding shares are owned by Nexa Recursos Minerais S.A. with 0.081% and by other minority shareholders holding 0.003% in aggregate.

Nexa Peru

Currently, Nexa Peru's share capital consists of 1,257,754,353 common shares. In addition to common shares, Nexa Peru has issued investment shares that represent a participation in its net worth (*patrimonio*). Although the investment shares do not represent a participation in the capital of Nexa nor grant any voting rights, they grant their holders the right, among others, to participate in any dividend distributions and liquidation proceeds, pro rata to the percentage they represent in the total net worth of Nexa Peru; as well as to participate in any capital increases (in order to maintain the participation they represent in the total net worth) and the right to have their shares redeemed in certain circumstances. As of December 31, 2024, approximately 67.02% of the investment shares are free float and 32.98% are treasury shares.

Both the common shares and the investment shares of Nexa Peru are registered with the Peruvian Public Registry of Securities (*Registro Público del Mercado de Valores*) and listed on the Lima Stock Exchange. As a result, Nexa Peru is required to comply with certain disclosure obligations such as filing quarterly and annual financial statements, reporting on material events (*hechos de importancia*) and disclosing information regarding the economic group to which it belongs.

The following table sets forth information concerning the ownership of the capital stock of Nexa Peru, excluding the investment shares.

Shareholder	Number	Share Capital (%)
Nexa CJM	1,048,621,896	83.37%
Nexa Resources	2,277,601	0.18%
Public float	206,854,856	16.45%
Total	**1,257,754,353**	**100.0%**

Nexa Brazil

On May 1, 2023, Nexa Brazil, which is 100% owned by Nexa Resources, merged its wholly-owned subsidiary Mineração Dardanelos Ltda., which owns 100% of the Aripuanã Mine, into itself.

Producing mines and smelters

Our mines are:

- ***Cerro Lindo***. Our Cerro Lindo mine is an underground mine located in Peru wholly-owned by Nexa Peru, which is 83.55% directly and indirectly owned by Nexa Resources. Operations began in 2007 and, in 2024, the Cerro Lindo mine produced approximately 86.2 thousand tonnes of zinc contained in concentrates, 29.9 thousand tonnes of copper contained in concentrates, 13.9 thousand tonnes of lead contained in concentrates, 4,268.0 thousand ounces of silver contained in concentrates and 4.9 thousand ounces of gold contained in concentrates. The ore is treated at a concentrate plant that has a processing capacity of 21.0 thousand tonnes of ore per day.

- ***Vazante***. Our Vazante mine is an underground and open pit mine located in Brazil wholly-owned by Nexa Brazil, which is 100% owned by Nexa Resources. Operations began in 1969 and, in 2024, the Vazante mine produced approximately 140.7 thousand tonnes of zinc contained in concentrates, 0.9 thousand tonnes of lead contained in concentrates and 470.0 thousand ounces of silver contained in concentrates. The ore is treated at a concentrate plant that has a processing capacity of 5.0 thousand tonnes of ore per day.

- ***El Porvenir.*** Our El Porvenir mine is an underground mine located in Peru (part of the Cerro Pasco Complex) wholly-owned by Nexa Resources El Porvenir S.A.C., which is 83.55% directly and indirectly owned by Nexa Resources. Operations began in 1949 and, in 2024, the El Porvenir mine produced approximately 50.6 thousand tonnes of zinc contained in concentrates, 0.3 thousand tonnes of copper contained in concentrates, 26.8 thousand tonnes of lead contained in concentrates, 4,641.7 thousand ounces of silver contained in concentrates and 8.0 thousand ounces of gold contained in concentrates. The ore is treated at a concentrate plant that has a processing capacity of 6.5 thousand tonnes of ore per day.

- ***Atacocha***. Our Atacocha mine is an underground and open pit mine located in Peru (part of the Cerro Pasco Complex) wholly-owned by Nexa Resources Atacocha S.A.A. (formerly Compañía Minera Atacocha), which is 81.78% directly and indirectly owned by Nexa Resources. As a result of the capital increase process in Nexa Resources Atacocha S.A.A., we also increased our total (direct and indirect) ownership from 81.78% to approximately 83.00%, effective as of January 15, 2025. Operations began in 1938 and, in 2024, the Atacocha mine produced approximately 10.4 thousand tonnes of zinc contained in concentrates, 12.3 thousand tonnes of lead contained in concentrates, 1,213.0 thousand ounces of silver contained in concentrates and 9.1 thousand ounces of gold contained in concentrates. The ore is treated at a concentrate plant that has a processing capacity of 4.4 thousand tonnes of ore per day. In 2020, the mine was placed under a mandatory temporary suspension period in response to COVID-19. Due to the effects of COVID-19, the uncertain macroeconomic scenario and our efforts to reduce costs and improve operational efficiency, we decided not to resume the Atacocha underground mine after the mandatory temporary suspension of our operations in Peru and we placed it under care and maintenance, where it remains to date.

- ***Aripuanã***. Our Aripuanã mine is an underground mine located in Brazil wholly-owned by Nexa Brazil, which is 100% owned by Nexa Resources. Ramp-up activities at the Aripuanã mine began in 2022, and as of June 2024, the mine is no longer in the ramp-up phase and has transitioned to an ongoing operation. In 2024, the Aripuanã mine produced approximately 31.6 thousand tonnes of zinc contained in concentrates, 5.5 thousand tonnes of copper contained in concentrates, 13.1 thousand tonnes of lead contained in concentrates, 1,101.3 thousand ounces of silver contained in concentrates and 14.0 thousand ounces of gold contained in concentrates. The ore is treated at a concentrate plant that has a processing capacity of 6.3 thousand tonnes of ore per day.

Our smelters are:

- ***Cajamarquilla***. Our Cajamarquilla smelter, which is wholly-owned by Nexa CJM, which is 99.997% directly and indirectly owned by Nexa Resources, is located in Peru and began operating in 1981. It is currently the largest zinc smelter in Latin America (excluding Mexico) and was the fifth largest zinc smelter in the world in 2024, according to Wood Mackenzie. This smelter uses Roast-Leach-Electrowinning technology. With a nominal production capacity of 344.4 thousand tonnes of contained zinc per year, Cajamarquilla produced 334.1 thousand tonnes of zinc metal available for sales in 2024 and 323.1 thousand tonnes in 2023. In 2024, 31.1% of the zinc contained in raw material used by Cajamarquilla was sourced from our mines in Peru and 68.9% was purchased from third parties or obtained from secondary feed materials.

- ***Três Marias***. Our Três Marias smelter, which is wholly-owned by Nexa Brazil, which is 100% owned by Nexa Resources, is located in Brazil and began operating in 1969. Três Marias processes zinc silicate concentrate from our Vazante mine and zinc sulfide concentrate. This smelter uses Roast-Leach-Electrowinning technology. With a nominal production capacity of 192.2 thousand tonnes of refined metal per year, Três Marias produced 178.7 thousand tonnes of zinc metal and oxide in 2024 and 182.3 thousand tonnes in 2023. In 2024, 88.5% of the zinc contained in raw materials used by Três Marias was sourced from our mining operations in Brazil and Peru and 11.5% was purchased from third parties or obtained from secondary feed materials.

- ***Juiz de Fora***. Our Juiz de Fora smelter, which is wholly-owned by Nexa Brazil, which is 100% owned by Nexa Resources, is located in Brazil and began operating in 1980. This smelter uses Roast-Leach-Electrowinning and Waelz Furnace technologies. With a nominal production capacity of 96.9 thousand tonnes per year, Juiz de Fora produced 82.0 thousand tonnes of zinc metal in 2024 and 82.1 thousand tonnes in 2023. In 2024, 56.2% the zinc raw material used in Juiz de Fora was zinc concentrate sourced from our mining operations, 28.4% was purchased from third parties and 15.4% was obtained from secondary feed materials from electric arc furnace ("EAF") and brass oxide.

Growth Projects

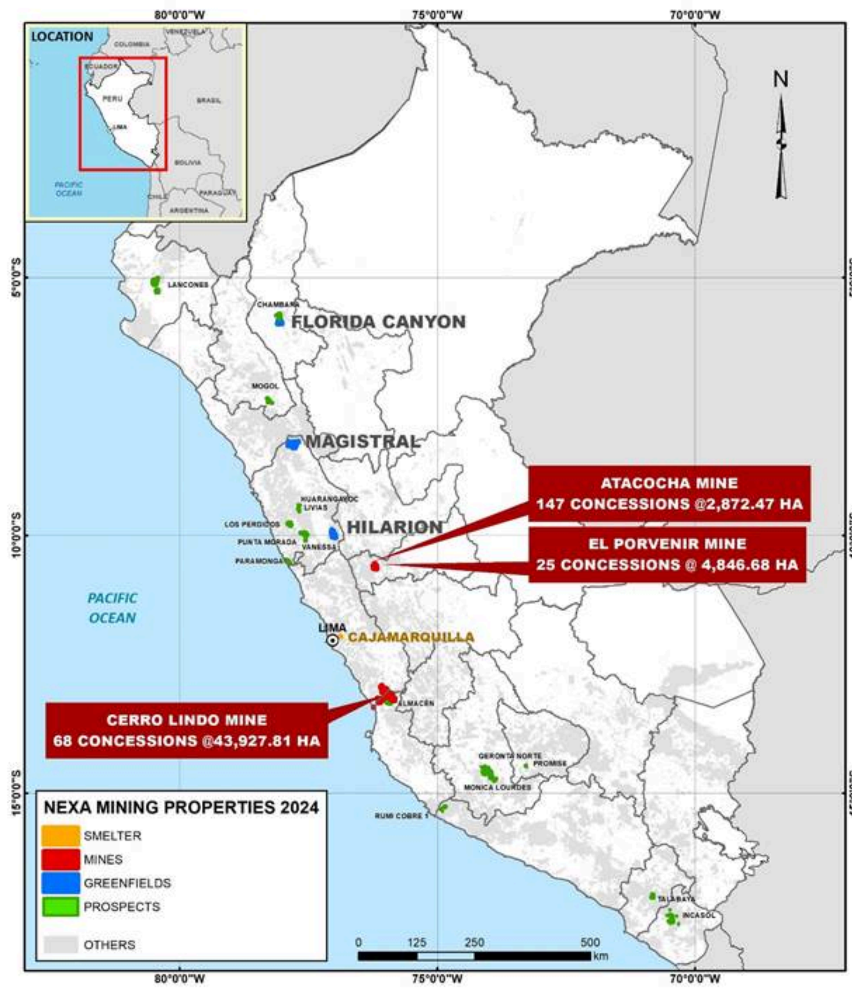
In addition to our operating mines and smelters, a component of our business focuses on growth and exploration, which are activities associated with ascertaining the existence, location, extent or quality of a mineral deposit. Our growth and exploration activities encompass brownfield and greenfield projects. Brownfield projects are exploration or development projects near or within our existing operations, which can share infrastructure and management of our existing operations. Greenfield projects are exploration or development projects that are located outside the area of influence of our existing mine operations and/or infrastructure, which will be independently developed and managed from our existing operations. Most of our brownfield and greenfield projects are in the pre-feasibility or feasibility stages.

The evolution of a greenfield project until it reaches full/normal capacity can take decades. The steps that a project typically follows to reach full/normal capacity are: exploration (for mining projects), pre-feasibility, feasibility study, construction/execution, commissioning, ramp-up, and full/normal capacity. Aripuanã was the only greenfield project that Nexa has built in recent decades and was in the ramp-up stage until June 2024.

In addition to our operating mines and smelters, we have interests in three greenfield projects in Peru (Magistral, Hilarión and Florida Canyon Zinc) and one in Namibia, as well as a number of prospects in Peru, Brazil and Namibia. For more information about the projects, please see "Information on the Company—Mining operations—Mining greenfield projects." Nexa also owns 19.87% of the issued and outstanding shares of Tinka Resources Limited, which in turn owns 100% of the Ayawilca zinc-silver development project located 40 kilometers northwest of Cerro de Pasco in Central Peru.

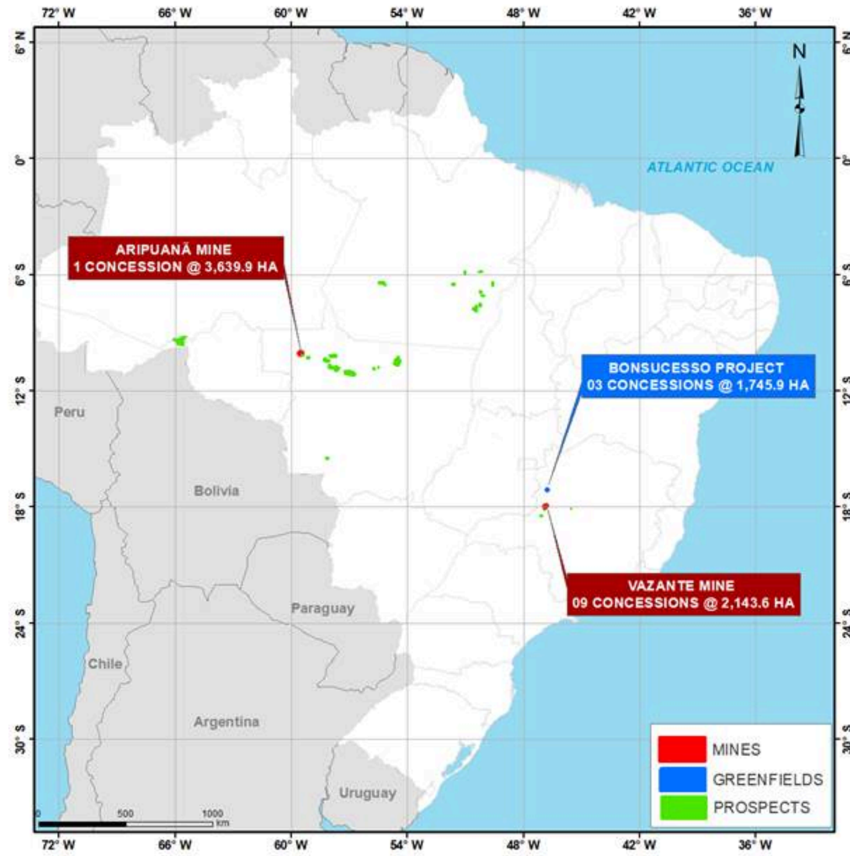
MINING OPERATIONS

Map 1. Mines, Projects and Prospects in Peru



Source: Nexa Resources.

Map 2. Mines, Projects and Prospects in Brazil



Source: Nexa Resources.

The following table summarizes our concentrate production, metal contained in concentrate production in each metal and zinc equivalent production in each of our operating mines.

To calculate the zinc equivalent production for the years ended December 31, 2024, 2023, and 2022, we convert the relevant metal contained in concentrate production used in the zinc equivalent grade based on the average benchmark prices for 2024, namely, US$2,779.0 per tonne (US$1.26 per pound) for zinc, US$9,146.8 per tonne (US$4.15 per pound) for copper, US$2,072.7 per tonne (US$0.94 per pound) for lead, US$28.3 per ounce for silver and US$2,386.2 per ounce for gold.

	For the Year Ended December 31,		
	2024	2023	2022
Treated Ore (in tonnes)	13,420,966	13,846,530	12,343,018
Mining Production—Metal Contained in Concentrate			
Zinc (in tonnes)	326,995	333,154	296,403
Copper (in tonnes)	35,698	33,385	33,219
Lead (in tonnes)	69,303	65,194	57,448
Silver (in oz)	11,694,073	10,300,672	9,974,462
Gold (in oz)	36,027	27,627	27,216
Mining Production—Zinc Equivalent Production			
Cerro Lindo (in tonnes of zinc equivalent)	242,567	220,984	249,446
Vazante (in tonnes of zinc equivalent)	146,229	152,598	137,210
El Porvenir (in tonnes of zinc equivalent)	125,654	126,500	120,319
Atacocha (in tonnes of zinc equivalent)	39,738	37,212	41,330
Aripuanã (in tonnes of zinc equivalent)	82,775	53,502	1,755
Morro Agudo[1] (in tonnes of zinc equivalent)	9,946	36,191	30,474
Total	646,908	626,987	580,535

(1) Considers only the four months of operations from January to April 2024. On April 30, 2024, we sold the Morro Agudo Complex.

The following table summarizes the average ore grade for the periods indicated.

	For the Year Ended December 31,		
	2024	2023	2022
Average Ore Grade			
Zinc (%)	2.90	2.90	2.78
Copper (%)	0.35	0.34	0.34
Lead (%)	0.67	0.66	0.62
Silver (in ounces per tonne)	1.16	1.00	1.07
Gold (in ounces per tonne)	0.006	0.005	0.005

Each of these mining properties consists of one mine, one treatment plant and related infrastructure. We summarize below information as of December 31, 2024, for each of our five mines. For an overview of our reserves and resources, see “Mineral Reserves and Resources—Disclosure of Mineral Reserves and Resources”, “Mineral Reserves and Resources—Mineral Reserves” and “Mineral Reserves and Resources—Mineral Resources.”

We have determined that our material properties are Cerro Lindo, Vazante, Cerro Pasco Complex and Aripuanã. As there has been no material changes in the reported reserves or resources for these mining properties since the last Technical Report Summary filed, we are not including new Technical Report Summaries in connection with this filing. Below is the individual property disclosure for each of these properties.

Cerro Lindo

Location and means of access

The Cerro Lindo mine is an underground, polymetallic mine located in the Chavín District, Chincha Province, Peru, approximately 268 km southeast of Lima and 60 km from the coast. Access from Lima is available via the paved Pan American Highway south to Chincha, and then via an unpaved road up the Topará River valley to the mine site. Internal roadways connect the various mine site components. The approximate coordinates of the mine are 392,780m East and 8,554,165m North, using the Universal Transverse Mercator WGS84 datum and the mine site is located at an average elevation of 2,000 meters above sea level.

History

Several companies have held interests in the Cerro Lindo mine area, including BTX, Phelps Dodge, and Nexa Peru. Exploration work completed to date includes geological mapping, rock chip and soil sampling, trenching, ground geophysical surveys, and exploration, definition and underground operational core drilling. Feasibility studies were completed in 2002 and 2005, with mine construction commencing in 2006. Formal production started in 2007, and the mine has been operational since that date.

Title, leases and options

All mineral concessions are held in the name of Nexa Peru. The tenure consists of 68 mining concessions totaling approximately 43,927.8 hectares and one beneficiation concession, covering an area of 518.8 hectares.

Nexa Peru currently holds surface rights or easements for the following infrastructure at Cerro Lindo: mine site, access roads, power transmission line and water pipeline for the mine, old and new power transmission lines to Cerro Lindo, desalination plant, water process plant, and the water pipeline from the desalination plant to the mine site. There is sufficient suitable land available within the mineral tenure held by Nexa Peru for tailings disposal, mine waste disposal and installations such as the process plant and related mine infrastructure.

Cerro Lindo is currently subject to payment of royalties. The tax stability agreement expired on December 31, 2021, and the historical applicability thereof is subject to certain disputes with tax authorities. For more information, see “Additional Information—Legal Proceedings—Other legal proceedings.” As of January 2022, Nexa Peru is required to pay royalties and special mining tax to the Peruvian government. For more information, see “Information on the Company—Regulatory matters—Peruvian regulatory framework.” As of December 31, 2024, Nexa Peru held a seawater extraction license, granted under Administrative Resolution No. 0033-2012-ANA-ALA MOC, for a total volume of 3,153,600 m^3 per year (8,640 m^3per day).

Cerro Lindo holds a number of permits in support of the current operations. The permits are Resolutions issued by the Peruvian authorities upon approval of mining environmental impact assessments filed by the mining companies. Nexa Peru maintains an up-to-date record of the legal permits obtained to date.

Mineralization

Cerro Lindo is classified as a volcanogenic massive sulfide (“VMS”) deposit. The Cerro Lindo deposit is 1,500 meters long, 1,000 meters wide, and has a current vertical development of 470 meters below the surface. Mineralization consists of at least 10 discrete mineralized zones. The Cerro Lindo deposit comprises lens-shaped massive bodies, composed of pyrite (50.0% to 90.0%), yellow sphalerite, brown sphalerite, chalcopyrite, and minor galena. Significant barite is present mainly in the upper portions of the deposit. A secondary-enrichment zone, composed of chalcocite and covellite, has formed near the surface where massive sulfides have oxidized. Silver-rich powdery barite remains at the surface as a relic of sulfide oxidation and leaching.

In 2024, mineral exploration in Cerro Lindo focused on extending known orebodies, particularly OB-8B and OB-8C, located southeast of the mine, and investigating potential new mineralized zones. Exploration efforts also targeted the Patahuasi Millay geophysical anomaly, which was the main focus of exploratory drilling in 2024 and resulted in its transition to an early-stage greenfield target. Drill holes at the Pucasalla target and its extensions indicated the presence of sulfide zones but without significant results. Drilling activities also continued at the Puca Punta target. Despite some delays caused by weather and operational challenges, significant progress was made in advancing the exploration program.

During 2024, we completed approximately 25.4 km of diamond drilling in 25 drill holes with 4 drill holes currently in progress that are expected to be concluded in 2025, divided between surface and underground exploration drillings. By the end of 2024, we had achieved key milestones, including significant advancements in extending known orebodies and evolving the exploratory drilling program.

During 2025, we expect to complete a total of 7.6 km of exploratory drilling. Our goals are to continue extending known orebodies, including OB-8C, and to construct new access and platforms to support the exploratory drilling program.

In 2024, we spent US$9.2 million in exploration expenses for Cerro Lindo, primarily associated with diamond drilling, geochemistry analysis and geological research works. We have budgeted US$3.5 million for 2025 to continue our exploration program, including data interpretations, geochemistry, geophysical and exploratory drilling campaign, including near mine drilling.

Operations and infrastructure

The Cerro Lindo mine is substantially mechanized, using rubber-tired equipment for all development and production operations. There is no shaft; all access is through 15 portals servicing adits, drifts and declines. Ore is extracted from nine separate ore bodies and delivered to the process plant via a series of conveyors. All ore is commingled during transport to the concentrator stockpile; ore from different ore bodies is not segregated.

We have completed construction of all key infrastructure required for mining and processing operations, including the underground mine, access roads, power lines, water pipelines, the desalination plant, offices and warehouses, accommodations, the process plant/concentrator, conveyor systems, waste rock facilities, temporary ore stockpiles, the paste-fill plant and the dry-stack tailings storage facilities. A new freshwater pipeline from the desalination plant on the coast to the mine was completed in 2020 and is operational. The national grid supplies electrical power for the mine site.

In 2024, we spent US$47.1 million on sustaining capital expenditures for Cerro Lindo, primarily associated with mine development and equipment replacement.

In 2024, exploration drilling activities faced delays due to heavy rainfall at the mine site and operational challenges related to exploratory drilling in long hole drilling; however, these disruptions did not significantly impact the overall progress of the exploration program.

In 2024, Nexa began using Digital Twin technology and predictive maintenance at Cerro Lindo. The use of this technology has delivered significant operational improvements. This pilot project aims to use AI models for testing, analysis, and simulations to improve operational performance. As a result, the project may achieve significant operational improvements, including an increase in milling capacity, a reduction in water consumption, and a decrease in crusher downtime. For risks related to the use of AI, please see “Risk Factors—Business risks—Our information and operational technology systems may be adversely affected by disruptions, damage, failure and risks associated with implementation and integration, including new technologies”.

Production

The Cerro Lindo mine is in the production stage and has a treatment plant capacity of 21,000 tonnes of ore per day. The Cerro Lindo unit has an authorized capacity of 20,000 tonnes of ore per day, but Peruvian law allows units to operate at a capacity 5.0% higher than their authorized capacity. The table below summarizes the Cerro Lindo mine’s concentrate production, metal contained in concentrates produced and average grades for the periods indicated. Production in 2024 was higher than 2023 primarily as a result of enhanced operational performance, access to areas with higher grades, especially in the first half of 2024, improved plant efficiency, and increased volume of treated ore.

	For the Year Ended December 31,		
	2024	**2023**	**2022**
Treatment ore (in tonnes)	6,080,038	5,991,156	6,236,058
Average ore grade			
Zinc (%)	1.62	1.51	1.55
Copper (%)	0.58	0.57	0.61
Lead (%)	0.31	0.31	0.33
Silver (ounces per tonne)	0.93	0.80	0.89
Gold (ounces per tonne)	0.003	0.002	0.002

Metal contained in concentrates production			
Zinc (in tonnes)	86,207	78,209	84,392
Copper (in tonnes)	29,888	28,588	32,758
Lead (in tonnes)	13,891	13,042	15,641
Silver (in oz)	4,268,043	3,540,975	4,129,736
Gold (in oz)	4,904	3,418	4,146
Cash Cost, net of by-product credits (in US$/t)	(1,010.6)	(138.6)	(561.4)
Cash Cost, net of by-product credits (in US$/lb)	(0.46)	(0.06)	(0.25)
Non-Expansion Capital Expenditures (in millions of US$)	49.0	43.3	42.5

Mineral Reserves and Mineral Resources

The Cerro Lindo Mineral Reserves estimates are based on the definitions for Mineral Reserves in SK-1300 and the tables below are based on costs and modifying factors from the Cerro Lindo mine.

Cerro Lindo – Year End Mineral Reserves as of December 31, 2024 (on an 83.55% Nexa attributable ownership basis) (1)

		Grade					Contained Metal				
Class	**Tonnage (2)**	**Zinc**	**Copper**	**Silver**	**Lead**	**Gold**	**Zinc**	**Copper**	**Silver**	**Lead**	**Gold**
	(Mt)	(%)	(%)	(g/t)	(%)	(g/t)	(kt)	(kt)	(koz)	(kt)	(koz)
Proven	20.79	1.56	0.57	19.7	0.19	-	323.6	118.1	13,183	38.9	-
Probable	11.85	1.07	0.43	24.2	0.22	-	127.2	50.5	9,238	26.4	-
Total	**32.64**	**1.38**	**0.52**	**21.4**	**0.20**	**-**	**450.8**	**168.6**	**22,421**	**65.2**	**-**

Notes:
1. Subpart 1300 of Regulation S-K definitions were followed for Mineral Reserves, which also are consistent with the CIM (2014) definitions.
2. Mineral Reserves data presented in this table are reported on 83.55% Nexa attributable ownership.
3. The Qualified Person for the Mineral Reserves estimate is Cesar Moreno, B.Eng., MAusIMM, a Nexa employee.
4. Numbers may not add due to rounding.
5. The point of reference for Mineral Reserves in this table is mill feed materials.

Cerro Lindo – Year End Mineral Reserves as of December 31, 2024 (on a 100% ownership basis) (1)

		Grade					Contained Metal				
Class	**Tonnage (2)**	**Zinc**	**Copper**	**Silver**	**Lead**	**Gold**	**Zinc**	**Copper**	**Silver**	**Lead**	**Gold**
	(Mt)	(%)	(%)	(g/t)	(%)	(g/t)	(kt)	(kt)	(koz)	(kt)	(koz)
Proven	24.88	1.56	0.57	19.7	0.19	-	387.3	141.3	15,779	46.5	-
Probable	14.19	1.07	0.43	24.2	0.22	-	152.2	60.4	11,057	31.5	-
Total	**39.07**	**1.38**	**0.52**	**21.4**	**0.20**	**-**	**539.5**	**201.8**	**26,836**	**78.1**	**-**

Notes:
1. Subpart 1300 of Regulation S-K definitions were followed for Mineral Reserves, which also are consistent with the CIM (2014) definitions.
2. Mineral Reserves data presented in this table represents 100% of the Mineral Reserves estimates for the property. Nexa owns 83.55%
3. The Qualified Person for the Mineral Reserves estimate is Cesar Moreno, B.Eng., MAusIMM, a Nexa employee.
4. Numbers may not add due to rounding.
5. The point of reference for Mineral Reserves in this table is mill feed materials.

The Cerro Lindo Mineral Reserves are estimated at an NSR cut-off value of US$44.94/t processed. A number of incremental material (with values between US$33.33/t and US$44.94/t) was included. A minimum mining width of 7.0 m was used, inclusive of extraction factors and dilution are applied based on stope type and location. The net smelter return ("NSR") cut-off value is determined using the mineral reserve metal prices, metal recoveries, concentrate transport, treatment and refining costs, as well as mine operating costs. Metal prices used for Mineral Reserves are based on consensus, long-term forecasts from banks, financial institutions and other sources. Mineral Reserves estimates are based on average long-term metal prices of zinc: US$2,864.90/t (US$1.30/lb); copper: US$9,095.61/t (US$4.13/lb); lead: US$2,097.45/t (US$0.95/lb); and silver: US$24.83/oz. Metallurgical recoveries are accounted for in NSR calculations based on historical processing data and are variable as a function of head grade. Recoveries at life of mine ("LOM") average head grades are 87.86% for Zn, 84.47% for Cu, 65.65% for Pb, and 68.78% for Ag. The current LOM plan continues to 2031.

Cerro Lindo – Net Difference in Mineral Reserves between December 31, 2024, versus December 31, 2023 (on an 83.55% Nexa attributable ownership basis)

Class	Tonnage		Contained Metal Zinc		Copper		Silver		Lead		Gold	
	(Mt)	%	(kt)	%	(kt)	%	(koz)	%	(kt)	%	(koz)	%
Proven	(1.04)	(4.8)	(43.5)	(11.8)	(14.5)	(10.9)	(1,680)	(11.3)	(5.2)	(11.8)	-	-
Probable	(0.67)	(5.3)	(17.2)	(11.9)	(6.4)	(11.2)	(915)	(9.10	(3.6)	(12.0)	-	-
Total	**(1.71)**	**(5.0)**	**(60.6)**	**(11.9)**	**(20.9)**	**(11.0)**	**(2.595)**	**(10.4)**	**(8.8)**	**(11.9)**	**-**	**-**

Cerro Lindo – Net Difference in Mineral Reserves between December 31, 2024, versus December 31, 2023 (on a 100% ownership basis)

Class	Tonnage		Contained Metal Zinc		Copper		Silver		Lead		Gold	
	(Mt)	%	(kt)	%	(kt)	%	(koz)	%	(kt)	%	(koz)	%
Proven	(1.27)	(4.9)	(52.4)	(11.9)	(17.5)	(11.0)	(2,024)	(11.4)	(6.3)	(11.9)	-	-
Probable	(0.81)	(5.4)	(20.7)	(12.0)	(7.7)	(11.2)	(1,105)	(9.1)	(4.3)	(12.0)	-	-
Total	**(2.08)**	**(5.1)**	**(73.1)**	**(11.9)**	**(25.1)**	**(11.1)**	**(3,130)**	**(10.4)**	**(10.6)**	**(12.0)**	**-**	**-**

In comparison to 2023, Cerro Lindo's Mineral Reserves decreased by 5.1% in mass to total 39.1 Mt from 41.2Mt and decreased by 11.9% in zinc content (kt), mainly due to an 18.0% decrease in Mineral Reserves average head grade, as a result of the depletion in higher grade areas, lower grades in areas upgraded from infill drilling, as well as improved NSR ("Net Smelter Return") as a result of higher metal prices. Mineral Reserve depletion during 2024 represented 6.1Mt containing 99.8kt of zinc.

Cerro Lindo – Year End Mineral Resources as of December 31, 2024 (on an 83.55% Nexa attributable ownership basis) (1)

Class	Tonnage (2)	Grade Zinc	Copper	Silver	Lead	Gold	Contained Metal Zinc	Copper	Silver	Lead	Gold
	(Mt)	(%)	(%)	(g/t)	(%)	(g/t)	(kt)	(kt)	(koz)	(kt)	(koz)
Measured	3.01	2.04	0.72	23.0	0.23	-	61.3	21.8	2,225	7.0	-
Indicated	2.41	0.99	0.50	22.3	0.19	-	23.7	12.1	1,725	4.6	-
Total	**5.42**	**1.57**	**0.63**	**22.7**	**0.22**	**-**	**85.0**	**33.9**	**3,950**	**11.7**	**-**
Inferred	8.39	1.53	0.27	25.5	0.39	-	128.1	22.5	6,862	32.9	-

Notes:
1. Subpart 1300 of Regulation S-K definitions were followed for Mineral Resources, which also are consistent with the CIM (2014) definitions.
2. Mineral Resources Tonnes and Contained Metal presented in this table are reported on 83.55% Nexa attributable ownership.
3. Mineral Resources are reported exclusive of those Mineral Resources that were converted to Mineral Reserves, and Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
4. The Qualified Person for the Mineral Resources estimate is Jerry Huaman Abalos, B.Geo., MAusIMM CP(Geo), a Nexa employee.
5. Numbers may not add due to rounding.
6. The point of reference for Mineral Resources in this table is mill feed materials.

Cerro Lindo – Year End Mineral Resources as of December 31, 2024 (on a 100% ownership basis) (1)

Class	Tonnage (2)	Grade					Contained Metal				
		Zinc	Copper	Silver	Lead	Gold	Zinc	Copper	Silver	Lead	Gold
	(Mt)	(%)	(%)	(g/t)	(%)	(g/t)	(kt)	(kt)	(koz)	(kt)	(koz)
Measured	3.60	2.04	0.72	23.0	0.23	-	73.3	26.1	2,663	8.4	-
Indicated	2.88	0.99	0.50	22.3	0.19	-	28.4	14.5	2,065	5.6	-
Total	**6.48**	**1.57**	**0.63**	**22.7**	**0.22**	**-**	**101.7**	**40.6**	**4,727**	**14.0**	**-**
Inferred	10.04	1.53	0.27	25.5	0.39	-	153.3	26.9	8,213	39.3	-

Notes:
1. Subpart 1300 of Regulation S-K definitions were followed for Mineral Resources, which also are consistent with the CIM (2014) definitions.
2. Mineral Resources data presented in this table represents 100% of the Mineral Resources estimates for the property. Nexa owns 83.55%.
3. Mineral Resources are reported exclusive of those Mineral Resources that were converted to Mineral Reserves, and Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
4. The Qualified Person for the Mineral Resources estimate is Jerry Huaman Abalos, B.Geo., MAusIMM CP(Geo), a Nexa employee.
5. Numbers may not add due to rounding.
6. The point of reference for Mineral Resources in this table is mill feed materials.

The Cerro Lindo Mineral Resources estimates in the table above were completed using Datamine Studio RM (“Datamine”) and Seequent’s Leapfrog Geo (“Leapfrog”) software. Wireframes for geology and mineralization were constructed in Leapfrog based on geology sections, assay results, lithological information, underground mapping and structural data. Assays were capped to various levels based on exploratory data analysis and then composited to 2.5 m lengths. Wireframes were filled with blocks sub-celled at wireframe boundaries. Blocks were interpolated with grade using the Ordinary Krig (“OK”) and Inverse Distance to the cube (“ID^3”) interpolation algorithms. Block estimates were validated using industry standard validation techniques. Classification of blocks used distance-based and other criteria. Mineral Resources estimates were reported using all the material within resource shapes generated in Deswik Stope Optimizer (“DSO”) software. The estimate satisfied the minimum mining width of 4.0 m for resource shapes and used NSR cut-off value of US$44.94/t. Mineral Resources estimates are based on average long-term metal prices of zinc: US$3,294.64/t (US$1.49/lb); copper: US$10,459.95/t (US$4.74/lb); lead: US$2,412.07/t (US$1.09/lb); and silver: US$28.55/oz. Metallurgical recoveries are accounted for in NSR calculations based on historical processing data and are variable as a function of head grade. Recoveries at LOM average head grades are 87.86% for Zn, 84.47% for Cu, 65.65% for Pb, and 68.78% for Ag.

Cerro Lindo – Net Difference in Mineral Resources between December 31, 2024, versus December 31, 2023 (on an 83.55% Nexa attributable ownership basis)

Class	Tonnage		Contained Metal									
			Zinc		Copper		Silver		Lead		Gold	
	(Mt)	%	(kt)	%	(kt)	%	(koz)	%	(kt)	%	(koz)	%
Measured	(0.66)	(18.0)	(9.6)	(13.5)	(2.1)	(8.7)	(504)	(18.5)	(1.8)	(20.8)	-	-
Indicated	(0.35)	(12.7)	(5.5)	(18.9)	(0.9)	(6.6)	(436)	(20.2)	(1.4)	(23.8)	-	-
Total	**(1.01)**	**(15.7)**	**(15.1)**	**(15.1)**	**(2.9)**	**(8.0)**	**(940)**	**(19.2)**	**(3.3)**	**(22.0)**	**-**	**-**
Inferred	0.64	8.2	8.8	7.4	3.1	16.2	(1,257)	(15.5)	0.3	0.9	-	-

Cerro Lindo – Net Difference in Mineral Resources between December 31, 2024, versus December 31, 2023 (on a 100% ownership basis)

Class	Tonnage		Contained Metal									
			Zinc		Copper		Silver		Lead		Gold	
	(Mt)	%	(kt)	%	(kt)	%	(koz)	%	(kt)	%	(koz)	%
Measured	(0.80)	(18.1)	(11.6)	(13.6)	(2.5)	(8.8)	(605)	(18.5)	(2.2)	(20.8)	-	-
Indicated	(0.42)	(12.8)	(6.6)	(18.9)	(1.0)	(6.7)	(524)	(20.3)	(1.7)	(23.8)	-	-
Total	**(1.22)**	**(15.8)**	**(18.2)**	**(15.2)**	**(3.5)**	**(8.0)**	**(1,130)**	**(19.3)**	**(3.9)**	**(22.1)**	**-**	**-**
Inferred	0.76	8.2	10.4	7.3	3.7	16.1	(1,513)	(15.6)	0.3	0.9	-	-

In comparison to 2023, Cerro Lindo's Inferred Mineral Resources increased by 8.2% in mass and by 10.4% in zinc content (kt), mainly due to brownfield drilling. In comparison to 2023, Cerro Lindo's Measured and Indicated Mineral Resources decreased by 15.8% in mass and by 15.2% in zinc content (kt), mainly due to the conversion to Mineral Reserves.

For additional information, see the "Technical Report Summary on Cerro Lindo", filed as Exhibit 15.1 to our annual report on Form 20-F/A for the year-ended December 31, 2020, as filed on November 4, 2021.

Vazante

Location and means of access

The Vazante mine is an underground and open pit, polymetallic mine located about 8.5 km from the municipality of Vazante, in the state of Minas Gerais, Brazil. The approximate coordinates of the mine are 17 57' 33" S and a longitude of approximately 46° 49' 42" W, within Zone 23S of the Universal Transverse Mercator coordinate system (Corrego Alegre Datum) at approximately 306,000m E and 8,016,000m N and the mine area has elevations ranging from 690 to 970 meters above sea level. Access from Brasilia is via federal highway BR-040 toward Paracatu. Internal roadways connect the various mine-site components. Concentrates are trucked about 250 km to the Três Marias smelter. The closest commercial airport is located in Brasilia. The Vazante municipal airport for light aircraft is adjacent to the mine site.

History

Mineralization was initially exploited by artisanal miners during the 1950s. Mechanized open pit mining and underground mining commenced in 1969 and 1983, respectively. The current primary ore types mined are hydrothermal zinc silicates and willemite. Initial mining operations exploited supergene calamine ores and a mixture of the zinc secondary minerals hemimorphite and smithsonite, which are derived from the weathering of silicate ore.

Title, leases and options

Nexa Brazil owns 100.0% of the Vazante mine. Mineral concessions are divided into core tenements, where the known mineral deposits are located and where we have active mining operations and the surrounding exploration concessions. Nexa Brazil holds three mining concession applications, nine mining concessions, and one group of mining concessions in the core area with a total area of 2,174.5 hectares. The group of mining concessions comprises six mining concessions, totaling an area of 819.5 hectares. The Mineral Reserves and Resources are located within the limits of two mining concession applications, two exploration authorizations and four mining concessions with a total area of 1,595.7 hectares, which host the active mining operations. One mining concession (tenement # 14,840/1967), which is part of the group of mining concessions, has the potential to host zinc and lead mineralization, however it does not yet have associated mineral reserves and resources.

Nearby the main area, Nexa Brazil also holds, 27 exploration authorizations totaling 17,145.6 hectares and one right to apply for mining concession totaling 344.5 hectares, in addition to the core tenements. Nexa Brazil holds surface rights sufficient to support the current operations. Some surface rights agreements require annual payments to the owners. Two easements have been granted in support of the mining activities. Sufficient suitable land is available within the mineral tenure held by Nexa Brazil for tailings disposal, mine waste disposal, and installations such as the process plant and related mine infrastructure.

Brazilian companies that hold mining concessions are subject to a royalty payment imposed by the Federal Government. For more information, see "Information on the Company—Regulatory matters—Brazilian regulatory framework—Royalties and other taxes on mining activities."

Nexa Brazil holds all required licenses for water management and water use in the operations. Nexa Brazil has lodged renewal applications, where applicable, for the water management and use.

The Vazante Operation holds several permits in support of the current operations. The main instrument to regulate the Vazante Operation is a set of operating licenses issued by the COPAM from the state of Minas Gerais. The licenses are active, some of them are under renewal process.

Mineralization

The Vazante and Extremo Norte zinc deposits are epigenetic zinc silicate deposits, and Vazante is one of the largest deposits of its type worldwide. Mineralization exists within a sequence of pelitic carbonate rocks belonging to the Serra do Poço Verde formation of the Vazante group. The major structural control is the Vazante fault.

Mineral exploration activities in 2024 were focused on expanding the mineralization of known ore bodies, such as Extremo Norte, Sucuri, Vazante Sul and Lumiadeira. In 2024, we experienced drilling delays related to operational problems of drilling in carbonate rocks of the Vazante deposit, but such delays did not significantly interfere with the results of the exploration campaign. We are conducting ongoing tests to explore extensions of known mineralization, intensifying drilling in areas near the mine and identifying other areas where mineralization may be present.

In 2024, we completed approximately 8.3 km of diamond drilling across 14 drill holes, with an additional three drill holes currently in progress and expected to be concluded in 2025. The drilling was divided between exploratory and extension drilling. The focus of the near mine extension drilling was on the extension of the Vazante mine ore bodies, exploring the targets Extremo Norte, Vazante Sul and Sucuri Norte, which confirmed the mineralized system and opened lateral and depth continuity.

In 2025, Nexa intends to continue expanding the near mine orebodies, including Sucuri, Varginha, Lumiadeira and Vazante Sul, as well as converting inferred resources into indicated resources in the BDMG area, which was acquired in 2022. In 2024, we invested US$3.8 million in the Vazante brownfield program for extending the LOM, which included a drilling program and geological activities. For 2025, we have allocated a budget of US$6.4 million for the Vazante mine and expect to drill 21.0 km.

Operations and infrastructure

The Vazante operation consists of two mechanized underground mines, the Vazante mine and Extremo Norte Mine. The treatment plant current capacity is approximately 1.8 Mtpy, including tailings retreatment. Production drilling operations have been performed by company personnel using a variety of drilling machines throughout the history of the Vazante mine.

The Vazante underground mine has been in operation since 1983 and is a fully mechanized mine using rubber-tired diesel equipment for development and production activities. Access is through two portals for Vazante and one portal for Extremo Norte. As development progresses at Extremo Norte, a connecting drift will be established from Vazante to Extremo Norte.

All infrastructure required for the current mining and processing operations has been constructed and is operational. This includes the underground mines, access roads, power lines, water pipelines, offices and warehouses, a process plant/concentrator, conveyor systems, waste rock facilities, temporary ore stockpiles, and tailings storage facilities.

The power supply to the Vazante operation is provided by one independent 138 kV transmission line that feeds the site and that can provide up to 59 MW. There are two 30/40 MVA and one 18/23 MVA transformers in the surface substation at the Vazante Operation and power is distributed to other areas of the mine at 13.8 kV and 440 V via secondary transformers to power mine equipment. There are two 700 kVA diesel generators on site to provide backup power to pump water out of the mine in case of main line interruption.

In 2024, we spent US$24.7 million on sustaining capital expenditures for this property, primarily associated with mine development, LOM extension and equipment replacement. In addition, we invested US$2.2 million in capital expenditures related to the LOM extension at Vazante, including US$0.4 million for the Vazante mine deepening project. For more information, see "Information on the Company—Mining Operations—Growth Projects—Vazante mine deepening project and other Vazante initiatives."

Production

The Vazante mine is in the production stage and has a treatment plant with a nominal design processing capacity of approximately 5,000 tonnes of ore per day. The table below summarizes the Vazante mine's concentrate production, metal contained in concentrates produced and average grades for the periods indicated. Production in 2024 was lower than 2023 due to lower zinc grades.

	For the Year Ended December 31,		
	2024	**2023**	**2022**
Treatment ore (in tonnes)	1,769,646	1,633,357	1,524,637
Average ore grade			
Zinc (%)	9.22	10.19	9.97
Lead (%)	0.28	0.33	0.33
Silver (ounces per tonne)	0.63	0.67	0.63
Metal contained in concentrate production			
Zinc (in tonnes)	140,740	145,662	131,527
Lead (in tonnes)	947	1,449	1,160
Silver (in oz)	470,090	575,636	473,578
Cash cost, net of by-product credits (in US$/t)	1,079.2	1,315.8	1,214.2
Cash cost, net of by-product credits (in US$/lb)	0.49	0.60	0.55
Non-Expansion Capital Expenditures (in millions of US$)	25.4	29.1	41.9

Mineral Reserves and Mineral Resources

The Vazante Mineral Reserves estimates are based on the definitions for Mineral Reserves in SK-1300 and the tables below are based on costs and modifying factors from the Vazante mine and Vazante Aroeira Tailings.

Vazante – Year End Mineral Reserves as of December 31, 2024 (on a 100% ownership basis) (1)

		Grade					Contained Metal				
Class	**Tonnage (2)**	**Zinc**	**Copper**	**Silver**	**Lead**	**Gold**	**Zinc**	**Copper**	**Silver**	**Lead**	**Gold**
	(Mt)	(%)	(%)	(g/t)	(%)	(g/t)	(kt)	(kt)	(koz)	(kt)	(koz)
Proven	5.45	8.74	-	14.3	0.26	-	476.7	-	2,511	14.0	-
Probable	8.30	7.88	-	9.6	0.24	-	654.3	-	2,575	20.1	-
Total	**13.75**	**8.22**	**-**	**11.5**	**0.25**	**-**	**1,131.0**	**-**	**5,086**	**34.1**	**-**

Notes:
1. Subpart 1300 of Regulation S-K definitions were followed for Mineral Reserves, which also are consistent with the CIM (2014) definitions.
2. Mineral Reserves data presented in this table represents 100% of the Mineral Reserves estimates for the property. Nexa owns 100%.
3. The Qualified Person for the Mineral Reserves estimate is Mateus Gomes Ribeiro, B.Eng., MAusIMM, a Nexa employee.
4. Numbers may not add due to rounding.
5. The point of reference for Mineral Reserves in this table is mill feed materials.
6. Mineral Reserves presented in this table include Mineral Reserves from Vazante mine and Vazante Aroeira Tailings.

The Vazante Mineral Reserves estimates in the table above consider actual costs and modifying factors from the Vazante mine and Vazante Aroeira tailings, as well as operational level mine planning and budgeting. The dilution that has been applied is related to the selected mining method. The NSR cut-off value was determined using the mineral reserve metal prices, metal recoveries, transport, treatment and refining costs, as well as mine operating costs. The Vazante mine Mineral Reserves are estimated at a NSR cut-off value of US$70.52/t processed. A minimum mining width of 2.0 m. Recoveries for the Vazante mine at average head grades are 86.52% for Zn, 37.07% for Pb, and 42.00% for Ag. The Vazante Aroeira Tailings Mineral Reserves estimates in the table above consider actual costs and modifying factors from the Vazante Aroeira tailings, as well as operational level TSF reclaiming plan and budgeting. The Vazante Aroeira Tailings Mineral Reserves are estimated at a NSR cut-off value of US$28.42/t processed. A minimum mining unit of 10m x 10m x 2m was applied. Recoveries for Vazante Aroeira Tailings at average head grades are 67.98% for Zn, 36.00% for Pb, and 42.00% for Ag. Metallurgical recoveries are accounted for in NSR calculations based on historical processing data and are variable as a function of head grade. Long-term metal prices used for Mineral Reserves are based on consensus and long-term forecasts from banks, financial institutions and other sources. Mineral Reserves estimates are based on average long-term metal prices of zinc: US$2,864.90/t (US$1.30/lb); lead: US$2,097.45/t (US$0.95/lb); and silver: US$24.83/oz. The current LOM plan continues to 2032.

Vazante – Net Difference in Mineral Reserves between December 31, 2024, versus December 31, 2023 (on a 100% ownership basis)

Class	Tonnage		Contained Metal									
			Zinc		Copper		Silver		Lead		Gold	
	(Mt)	%	(kt)	%	(kt)	%	(koz)	%	(kt)	%	(koz)	%
Proven	(0.03)	(0.6)	(63.1)	(11.7)	-	-	(512.2)	(16.9)	1.5	12.1	-	-
Probable	0.34	4.3	17.6	2.8	-	-	54.1	2.1	3.5	21.4	-	-
Total	**0.31**	**2.3**	**(43.5)**	**(3.9)**	**-**	**-**	**(458.1)**	**(8.3)**	**5.1**	**17.4**	**-**	**-**

In comparison to 2023, Vazante's Mineral Reserves increased by 2.3% in mass, mainly due to narrower orebodies with minimum operational width of 2m and decreased by 3.9% in zinc content (kt), mainly due to lower grades, following a review on the overbreak (i.e., the area mined outside the planned area) in our operations, which added waste to the mined tonnes, mined grade being above the average reserve grade and new drilling adding lower zinc grades. Mineral Reserve depletion during 2024 accounted for 1.8Mt containing 163.0kt of zinc.

Vazante – Year End Mineral Resources as of December 31, 2024 (on an 100% ownership basis) (1)

Class	Tonnage (2)	Grade					Contained Metal				
		Zinc	Copper	Silver	Lead	Gold	Zinc	Copper	Silver	Lead	Gold
	(Mt)	(%)	(%)	(g/t)	(%)	(g/t)	(kt)	(kt)	(koz)	(kt)	(koz)
Measured	0.46	8.99	-	16.2	0.30	-	41.4	-	240	1.4	-
Indicated	1.43	10.15	-	4.9	0.09	-	145.1	-	225	1.3	-
Total	**1.89**	**9.87**	**-**	**7.7**	**0.14**	**-**	**186.5**	**-**	**465**	**2.7**	**-**
Inferred	13.36	9.84	-	12.2	0.21	-	1,314.4	-	5,068	27.4	-

Notes:
1. Subpart 1300 of Regulation S-K definitions were followed for Mineral Resources, which also are consistent with the CIM (2014) definitions.
2. Mineral Resources data presented in this table represents 100% of the Mineral Resources estimates for the property. Nexa owns 100% of property.
3. Mineral Resources are reported exclusive of those Mineral Resources that were converted to Mineral Reserves, and Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
4. The Qualified Person for the Mineral Resources estimate is José Antonio Lopes, B.Geo., FAusIMM(Geo), a Nexa employee.
5. Numbers may not add due to rounding.
6. The point of reference for Mineral Resources in this table is mill feed materials.
7. Mineral Resources presented in this table include Mineral Resources from the Vazante mine and Vazante Aroeira Tailings.

The Vazante Mineral Resources estimates in the table above were completed using Datamine and Leapfrog software. The Mineral Resources at Vazante comprise three styles of mineralization. The first style of mineralization is represented by the hypogene (willemite) mineralized zones that are found in the underground portions of the Vazante and Extremo Norte deposits. The second style of mineralization is represented by the supergene (calamine) mineralized zones found in the Cava 3A, Matas dos Paulistas, and Braquiara areas of the Extremo Norte and Vazante deposits. This supergene (calamine) mineralization is referred to at the Vazante Operation as calamine mineralization and comprises a mixture of smithsonite and hemimorphite minerals. The third type of mineralization comprises tailings that are contained within the Aroeira TSF. The material found in the Aroeira tailings comprise a mixture of hypogene (willemite) and supergene (calamine) minerals. Mineral Resources estimates for the underground hypogene (willemite) mineralization are prepared within reporting panels using the native functions and workflows available through the DSO software package considering spatial continuity, a minimum width of 3.0 m and a NSR cut-off value of US$70.52/t for Hypogene Mineralization (willemite). The Mineral Resources estimates for the supergene (calamine) mineralization are prepared using an open pit shell that considers appropriate metal prices, mining costs, metallurgical recoveries and geotechnical considerations with NSR cut-off value of US$27.91/t for soil and US$32.92/t for fresh rock and transition material. The Mineral Resources estimates for the tailings at Vazante are reported considering the material with a NSR value of greater than US$28.42/t which lies above the original topographic surface. Mineral Resources estimates are based on average long-term metal prices for willemite and Aroeira TSF of zinc: US$3,294.64/t (US$1.49/lb); lead: US$2,412.07/t (US$1.09/lb); and silver: US$28.55/oz, and for calamine of zinc: US$3,250.30/t (US$1.47/lb). Metallurgical recoveries are accounted for in NSR calculations based on historical processing data and are variable as a function of head grade. Recoveries at LOM average: hypogene head grades are 86.52% for Zn, 37.07% for Pb, and 42.0% for Ag, supergene (calamine) is 55.0% for Zn, and tailings are 67.98% for Zn, 36.00% for Pb, and 42.00% for Ag.

Vazante – Net Difference in Mineral Resources between December 31, 2024 versus December 31, 2023 (on an 100% ownership basis)

Class	Tonnage		Contained Metal									
			Zinc		Copper		Silver		Lead		Gold	
	(Mt)	%	(kt)	%	(kt)	%	(koz)	%	(kt)	%	(koz)	%
Measured	(0.02)	(4.0)	1.1	2.8	-	-	49	25.7	0.2	16.9	-	-
Indicated	0.03	2.1	10.1	7.4	-	-	43	23.6	0.2	18.1	-	-
Total	**0.01**	**0.5**	**11.2**	**6.4**	**-**	**-**	**92**	**24.8**	**0.4**	**17.5**	**-**	**-**
Inferred	(0.07)	(0.5)	(24.4)	(1.8)	-	-	(388)	(7.1)	(1.7)	(5.9)	-	-

In comparison to 2023, Vazante's Inferred Mineral Resources decreased by 0.5% in mass and by 1.8% in zinc content (kt), mainly due to the recategorization to Measured and Indicated and furthermore the conversion to Mineral Reserves. In comparison to 2023, Vazante's Measured and Indicated Mineral Resources increased by 0.5% in mass and by 6.4% in zinc content (kt), mainly due to an increase in grade as a result of infill drilling.

For additional information, see the "Technical Report Summary on Vazante", filed as Exhibit 15.3 to our annual report on Form 20-F/A for the year-ended December 31, 2020, as filed on November 4, 2021.

Cerro Pasco Complex

The Cerro Pasco Complex consists of the El Porvenir underground mine, which produces zinc, copper, lead, silver and gold; the Atacocha San Gerardo open pit mine, producing zinc, lead, silver and gold; and the Atacocha underground mine, which has been suspended since 2020 and remains under care and maintenance due to our efforts to reduce costs and improve our operational efficiency.

The Atacocha and El Porvenir mines are located in Peru, specifically in the province of Pasco, which is a region recognized for its intensive mineral economic activities, where many polymetallic mines have been operating for several decades.

El Porvenir is an underground mine with multiple accesses and a shaft where the mined ore is extracted and where workers and inputs are also transported. There are multiple accesses to the Atacocha underground mine from the surface and the mine is currently connected to the El Porvenir mine through two active tunnels located at 4070 and 3300 levels. These tunnels are used by operators of heavy mine equipment and conventional trucks, as well as for transporting mining crews between the Atacocha surface and the El Porvenir mine.

Currently, production from the Atacocha San Gerardo open pit mine feeds the Atacocha processing plant with a nominal throughput capacity of 4,400 tonnes of ore per day, while production from the El Porvenir underground mine feeds the El Porvenir processing plant with a nominal throughput capacity of 6,500 tonnes of ore per day. The Atacocha processing plant is expected to be decommissioned by 2027, when the Atacocha San Gerardo pit reaches the end of its mine life based on our current depletion schedule.

Integration Project

The Cerro Pasco Complex integration project (“Integration Project”) involves the continued integration of the El Porvenir and Atacocha underground mines. The Cerro Pasco Complex is a material property for the purposes of S-K 1300 comprising the two mines, El Porvenir and Atacocha. The Integration Project is intended to continue to capture synergies between the two mining operations, as a result of their proximity and operational similarities, with ore from both the underground mines being processed at the El Porvenir processing plant. The goal of the Integration Project is to achieve cost and investment savings, thereby reducing the environmental footprint and extending the combined LOM of the two mines.

The Integration Project has been developed over the past few years. The first stage involved the administrative integration of both mines, completed in 2014. The second stage, completed in 2015, involved the integration of the tailings disposal system, which allowed the Atacocha plant to send its tailings to the El Porvenir dam in the short-term, thus contributing to the reduction of our environmental footprint. Operations of the integrated tailings disposal system began in 2016. The third stage, completed in 2016, involved the construction of a new 138-kilovolt (“kV”) energy transmission line connecting both mines, replacing the two previous 50 kV transmission lines. The fourth stage, concluded in 2019, involved the development of a 3.5 km tunnel connecting both underground mines, allowing us to initiate exploration programs in the integration zone between the two mines.

In 2021, modernization and debottlenecking studies to assess the mine deepening and the extension of the LOM of El Porvenir were postponed due to Nexa’s capital allocation strategy and the reassessment of the integration with the Atacocha underground mine. In 2022, we advanced the Integration Project with an optimization study to evaluate the increase in capacity of our tailings and El Porvenir shaft, in addition to enhancing the El Porvenir processing plant to potentially increase production and extend the LOM of both mines.

In 2023, we continued to advance the technical studies of the Integration Project, aiming to develop a robust organic growth option for Nexa. The technical studies for the Integration Project covered diverse areas, from mine planning to projects to sustain and expand production, such as studies for underground interconnection, shaft upgrade, engineering assessments, and key routes to increase capacity to provide a long-term solution for tailings disposal. A Front-End Loading 3 (“FEL3”) study to increase the El Porvenir hoisting was completed in the first quarter of 2023 and a FEL3 tailings pumping system study was also completed in the second quarter of 2023. As a result of the advancements in the technical studies in 2023, we increased the overall Mineral Reserves of the El Porvenir and Atacocha mines in the Cerro Pasco Complex, as of December 31, 2023. For additional information on the increase of Mineral Reserves, see “Information on the Company—Mining operations—El Porvenir—Mineral Reserves and Mineral Resources” and “Information on the Company— Mining operations—Atacocha—Mineral Reserves and Mineral Resources”

In 2024, Nexa achieved important milestones in the Integration Project. During the fourth quarter of 2024, our Board of Directors, through the Finance Committee, approved the first phase of the Integration Project – the tailings pumping and piping system, following a recommendation from the SCP Committee. This phase aims to expand tailings storage capacity at the Cerro Pasco Complex, thereby extending substantially the operational life of the site. Additionally, we developed an investment plan consisting of two phases that includes constructing a tailings treatment plant and its auxiliary structures at El Porvenir, and the second involves installing a 6 km pipeline (mostly underground) to connect El Porvenir to Atacocha’s tailings storage facility. This initiative will enable the Cerro Pasco Complex to operate for over a decade and represents a pivotal step toward sustainability.

Construction of the tailings pumping and piping system is expected to begin in the second quarter of 2025. As part of the project's first phase, investments to raise the El Porvenir tailings dam and expand Atacocha's tailings storage capacity are already in progress. Studies for the second phase of the project, which includes an additional underground connection of the mines and the El Porvenir shaft upgrade, are progressing well, and are expected to be completed by the third quarter of 2025.

The capital expenditures for the tailings pumping system are estimated to be between US$85 million and US$90 million, with investments planned from 2025 to 2026, with operations expected to commence in 2027. During the first phase, we intend to upgrade the tailings facilities at both El Porvenir and Atacocha, as well as improve water and effluent treatment systems, with construction planned for 2027-2028 following the completion of environmental impact assessments. In the second phase, we aim to build an additional 2.3 kilometers underground tunnel at a deeper level to connect the El Porvenir and Atacocha mines and upgrade the El Porvenir shaft, which is expected to unlock access to high-grade mineral resources. Support activities, such as technical reviews, environmental studies, and community engagement, are also progressing as planned. We are confident in the long-term value this project will generate for Nexa and remain focused on its successful execution.

Overall, the Integration Project plan includes several key initiatives, including: (i) the restart and rehabilitation of the Atacocha underground mine, revitalizing operations to improve production capacity; (ii) the development of an additional 2.3 km long connection tunnel (Tunnel 2900), which will connect the Atacocha underground mine to the base of the El Porvenir (Picasso) shaft, allowing ore hoisting and processing at the El Porvenir plant; (iii) the expansion of the Picasso shaft capacity to support production and ore extraction from both underground mines; (iv) the closure of the Atacocha processing plant, following the depletion of Atacocha's open pit Mineral Reserves in 2027, resulting in operations being consolidated at El Porvenir; and (v) the construction of a new tailings pumping and pipeline system, establishing a long-term tailings disposal solution by transporting the tailings from the El Porvenir processing plant to the Atacocha tailings storage facility, extending the operational life of the combined mines. We also are advanced on other work fronts related to the Integration Project, including the process to obtain the required environmental studies and permits.

For further information about our operations, infrastructure, production, and Mineral Reserves and Mineral Resources at the El Porvenir and Atacocha mines, see the Technical Report Summary on the Cerro Pasco Complex Integration, filed as Exhibit 15.2 to Nexa's annual report on Form 20-F for the year-ended December 31, 2023, as filed on March 27, 2024.

El Porvenir

Location and means of access

The El Porvenir mine is an underground, polymetallic mine (located in the Cerro Pasco Complex) in the central Andes mountains region of Peru, specifically in the district of San Francisco de Asís de Yarusyacán, in the province of Pasco, Peru. The approximate coordinates of the mine are 367600m E, 8826850m N, using the Universal Transverse Mercator WGS84 datum, Z18S and the mine site is located at an average elevation of 4,200 meters above sea level. The mine is situated at kilometer 340 of the Carretera Central Highway (Lima—Huánuco route), 13 km from the city of Cerro de Pasco. The mine is located in the Central Cordillera zone, which contains the communities of Parán, Lacsanga and Santo Domingo de Apache.

History

The El Porvenir mine began its operation as small scale artisanal mine in 1949. We have been investing in the mine since then, with a current treatment plant capacity of 6,500 tonnes of ore per day. In 2014, we commenced the integration process with the Atacocha mine, as described above in "Information on the Company—Mining Operations—Cerro Pasco Complex—Integration Project.

Title, leases and options

The El Porvenir mine is operated by Nexa Resources El Porvenir S.A.C., a wholly-owned subsidiary of Nexa Peru.

The El Porvenir mine has a total of 25 concessions covering approximately 4,846.7 hectares, as well as a beneficiation plant, "Acumulacion Aquiles 101". With respect to the surface property at El Porvenir mine, there is a mining site of 450.8 hectares, where the mining concession is located, as well as additional surface property where tailings dams/ponds, camps sites and other ancillary infrastructure are located.

Mining operations at the El Porvenir mine are subject to certain royalties payable by Nexa Resources El Porvenir S.A.C. For more information, see "Information on the Company—Regulatory matters—Peruvian regulatory framework—Royalties and other taxes on mining activities."

The El Porvenir Mine holds several permits in support of the current operations. The permits are Directorial Resolutions issued by the Peruvian authorities upon approval of mining environmental management instruments filed by the mining companies. Nexa Peru maintains an up-to-date record of the legal permits obtained to date.

Mineralization

The El Porvenir mine is a typical skarn deposit. The mineralization occurs within the contact of the upper Triassic limestone (*i.e.*, exoskarn) and the granodioritic-dacitic intrusive rocks (*i.e.*, endoskarn). There are also recognized veins and replacement manto type, minor disseminated mineralization may occur within the intrusive units. West of the Milpo-Atacocha fault within the Goyllarisquizga Group, mineralization is characterized as veins and disseminations.

Four groups of vein/mineralized structures are reported. Structurally controlled veins are sub-vertical up to 150 meters long, with a vertical extent of 350 meters. Economic mineralogy is mostly comprised of galena, sphalerite, and tetrahedrite, as well as variable and lesser pyrite, quartz and rhodochrosite.

Throughout 2024, the exploration program at El Porvenir was focused on drilling in mineralized zones in the Integration Project, seeking to evaluate the mineralization continuity in strike and at depth, with the goal of increasing mineral resources to expand the life of the El Porvenir and Atacocha mines. In 2024, we drilled 19 drill holes totaling 10.3 km of exploration drilling. The exploration drilling strategy continues to focus on expanding mineral resources and mineral reserves in Integration Project.

In 2025, we will focus our efforts on expanding the El Porvenir LOM with conversion drilling at the Integration Project. This initiative aims to upgrade mineral resources, supporting the long-term sustainability and operational efficiency of the mining complex.

We spent approximately US$1.8 million on the El Porvenir brownfield program in 2024, including the drilling program and geological activities. We have budgeted US$3.3 million for 2025 activities, and we expect to drill 13.7 km in 2025.

Operations and infrastructure

Most of the exploration is generally conducted simultaneously with underground development, which involves diamond core drilling and channel sampling following underground drifting.

The El Porvenir mine site consists of an underground mine, tailings pond, waste rock stockpiles, a process facility with associated laboratory and maintenance facilities and maintenance buildings for underground and surface equipment. Facilities and structures include a warehouse, office, change house facilities, main shaft, ventilation shaft, backfill plant, explosives storage area, hydroelectric power generation, power lines and substation, fuel storage tanks, a warehouse and laydown area and a permanent accommodation camp.

The electrical power supply for the mine comes from two sources: connection to the SEIN national power grid by a main substation located near the site, and the Candelaria Hydro, which consists of three turbines connected to the mine through the main substation by a transmission line. All other loads of the mine are fed from the main substation through overhead power lines. These power lines are used to deliver power to various locations to support activities during operation of the mine.

Site roads include main roads suitable for use by mining trucks that transport concentrates to Lima and service roads for use by smaller vehicles. The site roads are used by authorized mine personnel and equipment, with access controlled by Nexa Peru. An approximately 15-to-20-kilometer network of service roads was constructed to provide access to the underground mine, processing plant, tailings facility, waste rock stockpile, mine offices, workshops, mine camps and other surface infrastructure.

In 2024, we spent US$59.7 million on sustaining capital expenditures for this property, primarily associated with mine development, TSF, equipment replacement and other major infrastructure.

Production

The El Porvenir mine is in the production stage and has a treatment plant capacity of 6,500 tonnes of ore per day. The table below summarizes the El Porvenir mine's concentrate production, metal contained in concentrates produced and average grades for the periods indicated. Production in 2024 was lower than 2023 due to lower treated lower zinc grades.

	For the Year Ended December 31,		
	2024	**2023**	**2022**
Treatment ore (in tonnes)	2,205,478	2,220,011	2,111,961
Average ore grade			
Zinc (%)	2.61	2.86	2.80
Copper (%)	0.14	0.16	0.16
Lead (%)	1.44	1.37	1.34
Silver (ounces per tonne)	2.50	2.34	2.46
Gold (ounces per tonne)	0.010	0.011	0.012
Metal contained in concentrate production			
Zinc (in tonnes)	50,637	55,825	51,561
Copper (in tonnes)	292	355	266
Lead (in tonnes)	26,805	24,937	23,195
Silver (in oz)	4,641,676	4,270,463	4,195,649
Gold (in oz)	7,974	8,696	9,204
Cash Cost, net of by-product credits (in US$/t)	185.4	630.6	727.7
Cash Cost, net of by-product credits (in US$/lb)	0.08	0.29	0.33
Non-Expansion Capital Expenditures (in millions of US$)	60.5	68.6	36.7

Mineral Reserves and Mineral Resources

The El Porvenir Mineral Reserves estimates are based on the definitions for Mineral Reserves in SK-1300 and the tables below are based on costs and modifying factors from the El Porvenir mine.

El Porvenir – Year End Mineral Reserves as of December 31, 2024 (on an 83.55% Nexa attributable ownership basis) [(1)]

		Grade					Contained Metal				
Class	**Tonnage [(2)]** (Mt)	**Zinc** (%)	**Copper** (%)	**Silver** (g/t)	**Lead** (%)	**Gold** (g/t)	**Zinc** (kt)	**Copper** (kt)	**Silver** (koz)	**Lead** (kt)	**Gold** (koz)
Proven	3.42	4.11	0.25	76.2	1.29	-	140.5	8.5	8,384	44.2	-
Probable	9.30	4.16	0.23	70.9	1.14	-	387.2	21.8	21,211	106.2	-
Total	**12.72**	**4.15**	**0.24**	**72.3**	**1.18**	**-**	**527.2**	**30.3**	**29,595**	**150.4**	**-**

Notes:
1. Subpart 1300 of Regulation S-K definitions were followed for Mineral Reserves, which also are consistent with the CIM (2014) definitions.
2. Mineral Reserves data presented in this table are reported on 83.55% Nexa attributable ownership.
3. The Qualified Person for the Mineral Reserves estimate is Renzo Suarez, B.Eng., MAusIMM, a Nexa employee.
4. Numbers may not add due to rounding.
5. The point of reference for Mineral Reserves in this table is mill feed materials.

El Porvenir – Year End Mineral Reserves as of December 31, 2024 (on a 100% ownership basis) (1)

Class	Tonnage (2)	Grade					Contained Metal				
		Zinc	Copper	Silver	Lead	Gold	Zinc	Copper	Silver	Lead	Gold
	(Mt)	(%)	(%)	(g/t)	(%)	(g/t)	(kt)	(kt)	(koz)	(kt)	(koz)
Proven	4.10	4.11	0.25	76.2	1.29	-	168.2	10.2	10,035	52.9	-
Probable	11.13	4.16	0.23	70.9	1.14	-	463.4	26.1	25,387	127.1	-
Total	**15.23**	**4.15**	**0.24**	**72.3**	**1.18**	**-**	**631.6**	**36.3**	**35,442**	**180.1**	**-**

Notes:

1. Subpart 1300 of Regulation S-K definitions were followed for Mineral Reserves, which also are consistent with the CIM (2014) definitions.
2. Mineral Reserves data presented in this table represents 100% of the Mineral Reserves estimates for the property. Nexa owns 83.55%.
3. The Qualified Person for the Mineral Reserves estimate is Renzo Suarez, B.Eng., MAusIMM, a Nexa employee.
4. Numbers may not add due to rounding.
5. The point of reference for Mineral Reserves in this table is mill feed materials.

The El Porvenir Mineral Reserves estimates in the table above were prepared using DSO software, mine design and scheduling software. Mining methods used are Cut-and-Fill (“C&F”) mining, using unconsolidated rock fill and hydraulic backfill, and Sublevel Stope (“SLS”) using unconsolidated rock fill. NSR values were calculated using mineral reserve metal prices, metallurgical recovery and consideration of smelter terms, including revenue from payable metals, price participation, penalties, smelter losses, transportation, treatment, refining and sales charges. A minimum mining width of 5.0 m for C&F mining and 4.0 m for SLS mining were used for reserves shapes and development design and are reported to be inclusive of extraction losses and dilution. Mineral Reserves were estimated at a NSR cut-off values ranging from US$68.31/t to US$71.59/t for SLS areas, and US$70.31/t to US$73.58/t for C&F areas depending on the zone. A number of incremental material (with values between US$44.44/t and US$70.31/t for SLS and values between US$46.44/t and US$68.31/t for C&F mining) was included in the estimates. Mineral Reserves estimates are based on average long-term metal prices of zinc: US$2,864.90/t (US$1.30/lb); copper: US$9,095.61/t (US$4.13/lb); lead: US$2,097.45/t (US$0.95/lb); and silver: US$24.83/oz. Metallurgical recoveries are accounted for in NSR calculations based on historical processing data and are variable as a function of head grade. Recoveries at LOM average head grades are 89.23% for Zn, 15.03% for Cu, 79.99% for Pb, and 62.92% for Ag. The current LOM plan continues to 2034.

El Porvenir – Net Difference in Mineral Reserves between December 31, 2024, versus December 31, 2023 (on an 83.55% Nexa attributable ownership basis)

Class	Tonnage		Contained Metal									
			Zinc		Copper		Silver		Lead		Gold	
	(Mt)	%	(kt)	%	(kt)	%	(koz)	%	(kt)	%	(koz)	%
Proven	0.15	4.7	6.7	5.0	0.6	7.1	477	6.0	2.2	5.2	-	-
Probable	0.34	3.8	18.5	5.0	1.8	8.8	452	2.2	1.6	1.5	-	-
Total	**0.49**	**4.0**	**25.2**	**5.0**	**2.3**	**8.3**	**930**	**3.2**	**3.8**	**2.6**	**-**	**-**

El Porvenir – Net Difference in Mineral Reserves between December 31, 2024, versus December 31, 2023 (on a 100% ownership basis)

Class	Tonnage		Contained Metal									
			Zinc		Copper		Silver		Lead		Gold	
	(Mt)	%	(kt)	%	(kt)	%	(koz)	%	(kt)	%	(koz)	%
Proven	0.18	4.6	7.9	5.0	0.7	7.0	563	5.9	2.6	5.1	-	-
Probable	0.40	3.7	21.7	4.9	2.1	8.7	521	2.1	1.8	1.5	-	-
Total	**0.58**	**3.9**	**29.6**	**4.9**	**2.8**	**8.3**	**1,084**	**3.2**	**4.4**	**2.5**	**-**	**-**

In comparison to 2023, El Porvenir's Mineral Reserves increased by 3.9% in mass and by 4.9% in zinc content (kt). The increase in mass was mainly due to mineral resources additions as a result of the 2024 diamond drilling campaign. Mineral Reserve depletion during 2024 accounted for 2.2Mt containing 50.6 kt of zinc.

El Porvenir – Year End Mineral Resources as of December 31, 2024 (on an 83.55% Nexa Attributable ownership basis) (1)

Class	Tonnage (2)	Grade					Contained Metal				
		Zinc	Copper	Silver	Lead	Gold	Zinc	Copper	Silver	Lead	Gold
	(Mt)	(%)	(%)	(g/t)	(%)	(g/t)	(kt)	(kt)	(koz)	(kt)	(koz)
Measured	0.68	3.12	0.24	55.6	0.96	-	21.3	1.6	1,220	6.6	-
Indicated	3.38	3.19	0.20	59.7	0.92	-	107.8	6.6	6,481	31.1	-
Total	**4.06**	**3.18**	**0.20**	**59.0**	**0.93**	**-**	**129.1**	**8.3**	**7,701**	**37.7**	**-**
Inferred	12.92	3.67	0.22	81.6	1.33	-	474.0	28.9	33,879	171.7	-

Notes:
1. Subpart 1300 of Regulation S-K definitions were followed for Mineral Resources, which also are consistent with the CIM (2014) definitions.
2. Mineral Resources Tonnes and Contained Metal presented in this table are reported on 83.55% Nexa attributable ownership.
3. Mineral Resources are reported exclusive of those Mineral Resources that were converted to Mineral Reserves, and Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
4. The Qualified Person for the Mineral Resources estimate is Jerry Huaman Abalos, B.Geo., MAusIMM CP(Geo), a Nexa employee.
5. Numbers may not add due to rounding.
6. The point of reference for Mineral Resources in this table is mill feed materials.

El Porvenir – Year End Mineral Resources as of December 31, 2024 (on a 100% ownership basis) (1)

Class	Tonnage (2)	Grade					Contained Metal				
		Zinc	Copper	Silver	Lead	Gold	Zinc	Copper	Silver	Lead	Gold
	(Mt)	(%)	(%)	(g/t)	(%)	(g/t)	(kt)	(kt)	(koz)	(kt)	(koz)
Measured	0.82	3.12	0.24	55.6	0.96	-	25.5	2.0	1,461	7.8	-
Indicated	4.04	3.19	0.20	59.7	0.92	-	129.0	7.9	7,757	37.2	-
Total	**4.86**	**3.18**	**0.20**	**59.0**	**0.93**	**-**	**154.5**	**9.9**	**9,217**	**45.1**	**-**
Inferred	15.46	3.67	0.22	81.6	1.33	-	567.3	34.6	40,550	205.5	-

Notes:
1. Subpart 1300 of Regulation S-K definitions were followed for Mineral Resources, which also are consistent with the CIM (2014) definitions.
2. Mineral Resources data presented in this table represents 100% of the Mineral Resources estimates for the property. Nexa owns 83.55%.
3. Mineral Resources are reported exclusive of those Mineral Resources that were converted to Mineral Reserves, and Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
4. The Qualified Person for the Mineral Resources estimate is Jerry Huaman Abalos, B.Geo., MAusIMM CP(Geo), a Nexa employee.
5. Numbers may not add due to rounding.
6. The point of reference for Mineral Resources in this table is mill feed materials.

The El Porvenir Mineral Resources estimates in the table above were completed using Datamine and Leapfrog software. Wireframes for geology and mineralization were constructed in Leapfrog based on geology sections, assay results, lithological information, underground mapping and structural data. Assays were capped to various levels based on exploratory data analysis and then composited to 1.0 m lengths. Wireframes were filled with blocks and sub-celling at wireframe boundaries. Blocks were interpolated with grade using the OK and ID^3 interpolation algorithms. Block estimates were validated using industry standard validation techniques. Classification of blocks used distance-based and mineralization continuity criteria. Mineral Resources are reported using all the material within resource shapes generated in DSO software, satisfying minimum mining width of 4.0 m in areas with C&F stopes shapes and 3.0 m for SLS stopes. The Mineral Resources are estimated at a NSR cut-off grade values ranging from US$68.31/t to US$71.59/t for SLS areas and US$70.31/t to US$73.58/t for C&F areas depending on the zone. Mineral Resources estimates are based on average long-term metal prices of zinc: US$3,294.64/t (US$1.49/lb); copper: US$10,459.95/t (US$4.74/lb); lead: US$2,412.07/t (US$1.09/lb); and silver: US$28.55/oz. Metallurgical recoveries are accounted for in NSR calculations based on historical processing data and are variable as a function of head grade. Recoveries at LOM average head grades are 89.23% for Zn, 15.03% for Cu, 79.99% for Pb, and 62.92% for Ag.

El Porvenir – Net Difference in Mineral Resources between December 31, 2024, versus December 31, 2023 (on an 83.55% Nexa attributable ownership basis)

Class	Tonnage		Contained Metal Zinc		Copper		Silver		Lead		Gold	
	(Mt)	%	(kt)	%	(kt)	%	(koz)	%	(kt)	%	(koz)	%
Measured	0.13	23.9	2.2	11.5	0.1	9.5	198	19.3	1.3	24.7	-	-
Indicated	0.69	25.6	20.4	23.3	1.3	23.9	1,021	18.7	5.1	19.4	-	-
Total	**0.82**	**25.3**	**22.6**	**21.2**	**1.4**	**20.8**	**1,218**	**18.8**	**6.4**	**20.3**	**-**	**-**
Inferred	3.69	39.9	120.3	34.0	6.8	30.8	9,277	37.7	49.8	40.9	-	-

El Porvenir – Net Difference in Mineral Resources between December 31, 2024 versus December 31, 2023 (on a 100% ownership basis)

Class	Tonnage		Contained Metal Zinc		Copper		Silver		Lead		Gold	
	(Mt)	%	(kt)	%	(kt)	%	(koz)	%	(kt)	%	(koz)	%
Measured	0.16	23.8	2.6	11.4	0.2	9.4	236	19.2	1.5	24.6	-	-
Indicated	0.82	25.5	24.3	23.2	1.5	23.8	1,217	18.6	6.0	19.3	-	-
Total	**0.98**	**25.2**	**26.9**	**21.1**	**1.7**	**20.7**	**1,452**	**18.7**	**7.6**	**20.2**	**-**	**-**
Inferred	4.40	39.8	143.7	33.9	8.1	30.7	11,079	37.6	59.5	40.8	-	-

In comparison to 2023, El Porvenir's Inferred Mineral Resources increased by 39.8% in mass and by 33.9% in zinc content (kt), mainly due to exploration brownfield drilling. In comparison to 2023, El Porvenir's Measured and Indicated Mineral Resources increased by 25.2% in mass and by 21.1% in zinc content (kt), mainly due to infill drilling.

For additional information, see the Technical Report Summary on the Cerro Pasco Complex Integration, filed as Exhibit 15.2 to Nexa's annual report on Form 20-F for the year-ended December 31, 2023, as filed on March 27, 2024.

Atacocha

Location and means of access

Atacocha is a polymetallic underground and open pit mine (located in the Cerro Paso Complex) in the district of San Francisco de Asís de Yarusyacán, in the province of Pasco, Peru. The property is located at approximate coordinates of 367160m E, 8,830,400m N, using the UTM WGS84 datum, Z18S and approximately 4,050 meters above sea level.

History

The Atacocha mine began its operation as small-scale artisanal mine in 1936. We have been investing in the mine since then and, in 2012, production reached its current capacity of 4,500 tonnes per day. In 2014, we commenced the Integration Project with the El Porvenir mine, as described above in “Information on the Company—Mining operations—Cerro Pasco Complex—Integration Project.” In 2020, in response to COVID-19 and based on our cost management strategy, the Integration Project was temporarily suspended and Atacocha’s underground operations were not resumed after the mandatory restriction period from the Peruvian Government was lifted in mid-2020. As of the date of this annual report, the Atacocha underground mine is suspended under care and maintenance. In the fourth quarter of 2024, our Board of Directors, through the Finance Committee approved the first phase of the Integration Project – the tailings pumping and piping system, following the recommendation from the SCP Committee.

Title, leases and options

The Atacocha mine is operated by Nexa Resources Atacocha S.A.A., a subsidiary of Nexa Peru.

The Atacocha mine has a total of 147 concessions covering approximately 2,872.5 hectares, as well as a beneficiation plant, “Chicrin N° 2.” With respect to the surface property at the Atacocha mine, there is a mining site of 1,343.0 hectares, where the mining concession is located, as well as additional surface property where tailings dams/ponds, camps sites and other ancillary infrastructure are located. There are royalties payable in respect of mining operations at the Atacocha mine for the mining concessions held by Nexa Resources Atacocha S.A.A. For more information, see “Information on the Company—Regulatory matters—Peruvian regulatory framework—Royalties and other taxes on mining activities.”

The Atacocha mine holds a number of permits in support of the current operations. The permits are Directorial Resolutions issued by the Peruvian authorities upon approval of mining environmental management instruments filed by the mining companies. Nexa Peru maintains an up-to-date record of the legal permits obtained to date.

Atacocha operates two mines: the Atacocha underground mine and the San Gerardo open pit mine. The underground mine is currently suspended due to our efforts to reduce costs and improve our operational efficiency and remains under care and maintenance. However, mining continues in the San Gerardo open pit mine. Both mining operations feed the Atacocha processing plant.

Mineralization

In 2024, we spent approximately US$0.4 million on the Atacocha brownfield program for exploration maintenance. We have budgeted US$0.3 million for maintenance in 2025.

Operations and infrastructure

In 2024, we spent US$10.8 million on sustaining capital expenditures for this property, primarily associated with mine development, equipment replacement and other major infrastructure.

In February 2024 protest activities by the Joraoniyoc community blocked road access to the Atacocha San Gerardo open pit mine and suspended operations for approximately three days. Mining activities were limited to critical operations with a minimum workforce to ensure appropriate maintenance, safety and security. Despite the blockage, the Atacocha mine operated at high levels of capacity utilization rates throughout the year. During the blockage, Company pursued active dialogue with the local community and authorities for a peaceful resolution to this situation. Nexa remains committed to complying with all existing agreements, pursuing an active dialogue with the communities and authorities, and the social development of all its host communities.

Production

The Atacocha mine has a treatment plant capacity of 4,500 tonnes of ore per day. The table below summarizes the Atacocha mine’s concentrate production, metal contained in concentrates produced and average grades for the periods indicated. Production in 2024 was higher than in 2023 due to mining activities in higher-grade zones and improved plant efficiency.

	For the Year Ended December 31,		
	2024	**2023**	**2022**
Treatment ore (in tonnes)	1,511,875	1,397,192	1,353,681
Average ore grade			
Zinc (%)	0.90	0.77	0.89
Lead (%)	0.95	0.93	0.97
Silver (ounces per tonne)	1.03	1.21	1.05
Gold (ounces per tonne)	0.011	0.010	0.015
Metal contained in concentrate production			
Zinc (in tonnes)	10,404	8,193	9,552
Lead (in tonnes)	12,295	11,116	11,204
Silver (in oz)	1,212,952	1,399,681	1,155,002
Gold (in oz)	9,113	7,559	13,593
Cash cost, net of by-product credits (in US$/t)	(1,431.2)	(959.7)	(1,566.2)
Cash cost, net of by-product credits (in US$/lb)	(0.65)	(0.44)	(0.71)
Non-Expansion Capital Expenditures (in millions of US$)	11.2	16.2	4.5

Mineral Reserves and Mineral Resources (Atacocha Underground)

The Atacocha Underground Mineral Reserves estimates are based on the definitions for Mineral Reserves in SK-1300 and the tables below are based on costs and modifying factors from the Atacocha Underground mine.

Atacocha Underground – Year End Mineral Reserves as of December 31, 2024 (on an 81.78% Nexa attributable ownership basis) (1)

Class	Tonnage (2)	Grade					Contained Metal				
		Zinc	**Copper**	**Silver**	**Lead**	**Gold**	**Zinc**	**Copper**	**Silver**	**Lead**	**Gold**
	(Mt)	(%)	(%)	(g/t)	(%)	(g/t)	(kt)	(kt)	(koz)	(kt)	(koz)
Proven	1.46	3.94	0.33	86.2	1.56	-	57.7	4.8	4,053	22.8	-
Probable	3.34	4.54	0.43	76.6	1.27	-	151.4	14.2	8,216	42.4	-
Total	**4.80**	**4.36**	**0.40**	**79.5**	**1.36**	**-**	**209.1**	**19.0**	**12,269**	**65.2**	**-**

Notes:
1. Subpart 1300 of Regulation S-K definitions were followed for Mineral Reserves, which also are consistent with the CIM (2014) definitions.
2. Mineral Reserves data presented in this table are reported on 81.78% Nexa attributable ownership.
3. The Qualified Person for the Mineral Reserves estimate is Renzo Suarez, B.Eng., MAusIMM, a Nexa employee.
4. Numbers may not add due to rounding.
5. The point of reference for Mineral Reserves in this table is mill feed materials.

Atacocha Underground – Year End Mineral Reserves as of December 31, 2024 (on a 100% ownership basis)(1)

Class	Tonnage (2)	Grade					Contained Metal				
		Zinc	**Copper**	**Silver**	**Lead**	**Gold**	**Zinc**	**Copper**	**Silver**	**Lead**	**Gold**
	(Mt)	(%)	(%)	(g/t)	(%)	(g/t)	(kt)	(kt)	(koz)	(kt)	(koz)
Proven	1.79	3.94	0.33	86.2	1.56	-	70.5	5.9	4,956	27.8	-
Probable	4.08	4.54	0.43	76.6	1.27	-	185.1	17.4	10,047	51.9	-
Total	**5.87**	**4.36**	**0.40**	**79.5**	**1.36**	**-**	**255.6**	**23.3**	**15,003**	**79.7**	**-**

Notes:
1. Subpart 1300 of Regulation S-K definitions were followed for Mineral Reserves, which also are consistent with the CIM (2014) definitions.
2. Mineral Reserves data presented in this table represents 100% of the Mineral Reserves estimates for the property. Nexa owns 81.78%.
3. The Qualified Person for the Mineral Reserves estimate is Renzo Suarez, B.Eng., MAusIMM, a Nexa employee.
4. Numbers may not add due to rounding.
5. The point of reference for Mineral Reserves in this table is mill feed materials.

The Atacocha Underground Mineral Reserves estimates in the table above were prepared using DSO software, mine design and scheduling software. Mining methods used are C&F mining, using unconsolidated rock fill and hydraulic backfill, and SLS using unconsolidated rock fill. NSR values were calculated using mineral reserve metal prices, metallurgical recovery and consideration of smelter terms, including revenue from payable metals, price participation, penalties, smelter losses, transportation, treatment, refining and sales charges. A minimum mining width of 5.0m for C&F mining and 4.0 m for SLS mining were used for reserves shapes and development design and are reported inclusive of extraction losses and dilution. The Mineral Reserves were estimated at a NSR cut-off of US$73.54/t for SLS areas, and US$75.61/t for C&F areas depending on the zone. A number of incremental material (with values between US$49.67/t and US$73.54/t for SLS and values between US$51.73/t and US$75.61/t for C&F mining) was included in the estimate. Mineral Reserves estimates are based on average long-term metal prices of zinc: US$2,864.90/t (US$1.30/lb); copper: US$9,095.61/t (US$4.13/lb); lead: US$2,097.45/t (US$0.95/lb); and silver: US$24.83/oz. Metallurgical recoveries are accounted for in NSR calculations based on historical processing data and are variable as a function of head grade. Recoveries at LOM average head grades are 89.30% for Zn, 15.73% for Cu, 80.02% for Pb, and 62.92% for Ag. The current LOM production plan begins in 2028 and continues to 2034.

Atacocha Underground – Net Difference in Mineral Reserves between December 31, 2024 (on an 81.78% Nexa attributable ownership basis), versus December 31, 2023 (on a 75.96% Nexa attributable ownership basis)

Class	Tonnage		Contained Metal Zinc		Copper		Silver		Lead		Gold	
	(Mt)	%	(kt)	%	(kt)	%	(koz)	%	(kt)	%	(koz)	%
Proven	0.17	12.9	7.7	15.5	0.5	10.7	518	14.7	4.1	21.7	-	-
Probable	0.33	11.0	14.8	10.8	1.4	10.9	707	9.4	3.7	9.4	-	-
Total	**0.50**	**11.6**	**22.5**	**12.1**	**1.9**	**10.8**	**1,225**	**11.1**	**7.7**	**13.4**	**-**	**-**

Atacocha Underground – Net Difference in Mineral Reserves between December 31, 2024, versus December 31, 2023 (on a 100% ownership basis)

Class	Tonnage		Contained Metal Zinc		Copper		Silver		Lead		Gold	
	(Mt)	%	(kt)	%	(kt)	%	(koz)	%	(kt)	%	(koz)	%
Proven	0.08	4.9	4.8	7.3	0.2	2.8	303	6.5	3.2	13.0	-	-
Probable	0.12	3.1	5.3	2.9	0.5	3.0	160	1.6	0.8	1.6	-	-
Total	**0.20**	**3.6**	**10.1**	**4.1**	**0.7**	**3.0**	**463**	**3.2**	**4.0**	**5.3**	**-**	**-**

In comparison to 2023, Atacocha's Underground Mineral Reserves increased by 3.6% and by 4.1% in zinc content (kt), mainly due to higher metal prices.

Atacocha Underground – Year End Mineral Resources as of December 31, 2024 (on an 81.78% Nexa Attributable ownership basis) (1)

Class	Tonnage (2)	Grade					Contained Metal				
		Zinc	Copper	Silver	Lead	Gold	Zinc	Copper	Silver	Lead	Gold
	(Mt)	(%)	(%)	(g/t)	(%)	(g/t)	(kt)	(kt)	(koz)	(kt)	(koz)
Measured	0.92	3.34	0.27	55.4	0.98	-	30.6	2.5	1,631	8.9	-
Indicated	2.12	3.18	0.37	55.3	0.92	-	67.5	7.9	3,777	19.6	-
Total	**3.04**	**3.23**	**0.34**	**55.3**	**0.94**	**-**	**98.1**	**10.4**	**5,408**	**28.5**	**-**
Inferred	6.76	4.02	0.55	76.6	1.20	-	271.7	37.2	16,655	80.9	-

Notes:
1. Subpart 1300 of Regulation S-K definitions were followed for Mineral Resources, which also are consistent with the CIM (2014) definitions.
2. Mineral Resources Tonnes and Contained Metal presented in this table are reported on 81.78% Nexa attributable ownership.
3. Mineral Resources are reported exclusive of those Mineral Resources that were converted to Mineral Reserves, and Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
4. The Qualified Person for the Mineral Resources estimate is Jerry Huaman Abalos, B.Geo., MAusIMM CP(Geo), a Nexa employee.
5. Numbers may not add due to rounding.
6. The point of reference for Mineral Resources in this table is mill feed materials.

Atacocha Underground – Year End Mineral Resources as of December 31, 2024 (on a 100% ownership basis)(1)

Class	Tonnage (2)	Grade					Contained Metal				
		Zinc	Copper	Silver	Lead	Gold	Zinc	Copper	Silver	Lead	Gold
	(Mt)	(%)	(%)	(g/t)	(%)	(g/t)	(kt)	(kt)	(koz)	(kt)	(koz)
Measured	1.12	3.34	0.27	55.4	0.98	-	37.4	3.0	1,995	10.9	-
Indicated	2.60	3.18	0.37	55.3	0.92	-	82.6	9.6	4,618	24.0	-
Total	**3.72**	**3.23**	**0.34**	**55.3**	**0.94**	**-**	**120.0**	**12.7**	**6,613**	**34.9**	**-**
Inferred	8.26	4.02	0.55	76.6	1.20	-	332.2	45.5	20,366	98.9	-

Notes:
1. Subpart 1300 of Regulation S-K definitions were followed for Mineral Resources, which also are consistent with the CIM (2014) definitions.
2. Mineral Resources data presented in this table represents 100% of the Mineral Resources estimates for the property. Nexa owns 81.78%.
3. Mineral Resources are reported exclusive of those Mineral Resources that were converted to Mineral Reserves, and Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
4. The Qualified Person for the Mineral Resources estimate is Jerry Huaman Abalos, B.Geo., MAusIMM CP(Geo), a Nexa employee.
5. Numbers may not add due to rounding.
6. The point of reference for Mineral Resources in this table is mill feed materials.

The Atacocha Underground Mineral Resources estimates in the table above were completed using Datamine and Leapfrog software. Wireframes for geology and mineralization were constructed in Leapfrog based on geology sections, assay results, lithological information, underground mapping and structural data. Assays were capped to various levels based on exploratory data analysis and then composited to 2.0 m lengths. Wireframes were filled with blocks and sub-celling at wireframe boundaries. Blocks were interpolated with grade using the OK and ID^3 interpolation algorithms. Block estimates were validated using industry standard validation techniques. Classification of blocks used distance-based and mineralization continuity criteria. Mineral Resources are reported using all the material within resource shapes generated in DSO software, satisfying minimum mining width of 4.0 m in areas with C&F stopes shapes and 3.0 m for SLS stopes. The Mineral Resources are estimated at a NSR cut-off grade values of US$73.54/t for SLS areas and US$75.61/t for C&F areas depending on the zone. Mineral Resources estimates are based on average long-term metal prices of zinc: US$3,294.64/t (US$1.49/lb); copper: US$10,459.95/t (US$4.74/lb); lead: US$2,412.07/t (US$1.09/lb); and silver: US$28.55/oz. Metallurgical recoveries are accounted for in NSR calculations based on historical processing data and are variable as a function of head grade. Recoveries at LOM average head grades are 89.30% for Zn, 15.73% for Cu, 80.02% for Pb, and 62.92% for Ag.

Atacocha Underground – Net Difference in Mineral Resources between December 31, 2024 (on an 81.78% Nexa attributable ownership basis), versus December 31, 2023 (on a 75.96% Nexa attributable ownership basis)

Class	Tonnage		Contained Metal Zinc		Copper		Silver		Lead		Gold	
	(Mt)	%	(kt)	%	(kt)	%	(koz)	%	(kt)	%	(koz)	%
Measured	0.12	14.8	2.9	10.6	0.4	17.0	221	15.6	1.1	14.3	-	-
Indicated	0.21	11.0	4.3	6.9	1.0	14.0	398	11.8	2.0	11.2	-	-
Total	**0.33**	**12.1**	**7.3**	**8.0**	**1.3**	**14.7**	**618**	**12.9**	**3.1**	**12.2**	**-**	**-**
Inferred	0.64	10.4	21.2	8.5	2.9	8.6	1,439	9.5	6.8	9.2	-	-

Atacocha Underground – Net Difference in Mineral Resources between December 31, 2024, versus December 31, 2023 (on a 100% ownership basis)

Class	Tonnage		Contained Metal Zinc		Copper		Silver		Lead		Gold	
	(Mt)	%	(kt)	%	(kt)	%	(koz)	%	(kt)	%	(koz)	%
Measured	0.07	6.6	1.0	2.7	0.2	8.7	138	7.4	0.6	6.1	-	-
Indicated	0.08	3.1	(0.6)	(0.7)	0.5	5.9	170	3.8	0.8	3.3	-	-
Total	**0.15**	**4.1**	**0.4**	**0.3**	**0.8**	**6.6**	**308**	**4.9**	**1.4**	**4.2**	**-**	**-**
Inferred	0.20	2.5	2.5	0.8	0.4	0.9	335	1.7	1.4	1.4	-	-

In comparison to 2023, Atacocha's Underground Inferred Mineral Resources increased by 2.5% in mass and by 0.8% in zinc content (kt), mainly due to higher metal prices in 2024. In comparison to 2023, Atacocha's Underground Measured and Indicated Mineral Resources increased by 4.1% in mass and by 0.3% in zinc content (kt), mainly due to higher metal prices in 2024.

For additional information, see the Technical Report Summary on the Cerro Pasco Complex Integration, filed as Exhibit 15.2 to Nexa's annual report on Form 20-F for the year-ended December 31, 2023, as filed on March 27, 2024.

Mineral Reserves and Mineral Resources (Atacocha Open Pit)

The Atacocha Open Pit Mineral Reserves estimates are based on the definitions for Mineral Reserves in SK-1300 and the tables below are based on costs and modifying factors from the Atacocha Open Pit mine.

Atacocha Open Pit – Year End Mineral Reserves as of December 31, 2024 (on an 81.78% Nexa attributable ownership basis) (1)

Class	Tonnage (2)	Grade Zinc	Copper	Silver	Lead	Gold	Contained Metal Zinc	Copper	Silver	Lead	Gold
	(Mt)	(%)	(%)	(g/t)	(%)	(g/t)	(kt)	(kt)	(koz)	(kt)	(koz)
Proven	1.18	1.08	-	38.9	1.17	0.18	12.7	-	1,469	13.7	6.7
Probable	1.81	0.97	-	33.3	1.15	0.22	17.6	-	1,943	20.9	13.0
Total	**2.99**	**1.01**	**-**	**35.5**	**1.16**	**0.21**	**30.3**	**-**	**3,413**	**34.7**	**19.7**

Notes:
1. Subpart 1300 of Regulation S-K definitions were followed for Mineral Reserves, which also are consistent with the CIM (2014) definitions.
2. Mineral Reserves data presented in this table are reported on 81.78% Nexa attributable ownership.
3. The Qualified Person for the Mineral Reserves estimate is Renzo Suarez, B.Eng., MAusIMM, a Nexa employee.
4. Numbers may not add due to rounding.
5. The point of reference for Mineral Reserves in this table is mill feed materials.

Atacocha Open Pit – Year End Mineral Reserves as of December 31, 2024 (on a 100% ownership basis) (1)

Class	Tonnage (2)	Grade					Contained Metal				
		Zinc	Copper	Silver	Lead	Gold	Zinc	Copper	Silver	Lead	Gold
	(Mt)	(%)	(%)	(g/t)	(%)	(g/t)	(kt)	(kt)	(koz)	(kt)	(koz)
Proven	1.44	1.08	-	38.9	1.17	0.18	15.5	-	1,797	16.8	8.2
Probable	2.22	0.97	-	33.3	1.15	0.22	21.5	-	2,376	25.6	15.9
Total	**3.66**	**1.01**	**-**	**35.5**	**1.16**	**0.21**	**37.0**	**-**	**4,173**	**42.4**	**24.1**

Notes:
1. Subpart 1300 of Regulation S-K definitions were followed for Mineral Reserves, which also are consistent with the CIM (2014) definitions.
2. Mineral Reserves data presented in this table represents 100% of the Mineral Reserves estimates for the property. Nexa owns 81.78%.
3. The Qualified Person for the Mineral Reserves estimate is Renzo Suarez, B.Eng., MAusIMM, a Nexa employee.
4. Numbers may not add due to rounding.
5. The point of reference for Mineral Reserves in this table is mill feed materials.

The Atacocha Open Pit Mineral Reserves estimates in the table above were prepared using DSO software, mine design and scheduling software. NSR values were calculated using mineral reserve metal prices, metallurgical recovery and consideration of smelter terms, including revenue from payable metals, price participation, penalties, smelter losses, transportation, treatment, refining and sales charges. The Mineral Reserves were estimated at a NSR cut-off values of US$20.42/t. A number of incremental material (with values between US$15.12/t and US$20.42/t was included in the estimates. Mineral Reserves estimates are based on average long-term metal prices of zinc: US$2,864.90/t (US$1.30/lb); lead: US$2,097.45/t (US$0.95/lb); and silver: US$24.83/oz; and gold: US$1,946.05/oz. Metallurgical recoveries are accounted for in NSR calculations based on historical processing data and are variable as a function of head grade. Recoveries at LOM average head grade are 70.44% for Zn, 83.98% for Pb, 75.76% for Ag, and 65.46% for gold. The current LOM plan continues to 2027.

Atacocha Open Pit – Net Difference in Mineral Reserves between December 31, 2024 (on an 81.78% Nexa attributable ownership basis) versus December 31, 2023 (on a 75.96% Nexa attributable ownership basis)

Class	Tonnage		Contained Metal									
			Zinc		Copper		Silver		Lead		Gold	
	(Mt)	%	(kt)	%	(kt)	%	(koz)	%	(kt)	%	(koz)	%
Proven	(0.27)	(18.9)	(2.2)	(14.7)	-	-	(310)	(17.4)	(3.1)	(18.5)	(4.8)	(41.7)
Probable	(0.06)	(3.3)	(0.6)	(3.5)	-	-	(14)	(0.7)	(0.4)	(2.0)	(4.4)	(25.3)
Total	**(0.34)**	**(10.1)**	**(2.8)**	**(8.5)**	**-**	**-**	**(324)**	**(8.7)**	**(3.5)**	**(9.3)**	**(9.2)**	**(31.8)**

Atacocha Open Pit – Net Difference in Mineral Reserves between December 31, 2024, versus December 31, 2023 (on a 100% ownership basis)

Class	Tonnage		Contained Metal									
			Zinc		Copper		Silver		Lead		Gold	
	(Mt)	%	(kt)	%	(kt)	%	(koz)	%	(kt)	%	(koz)	%
Proven	(0.47)	(24.7)	(4.1)	(20.8)	-	-	(545)	(23.3)	(5.4)	(24.3)	(7.0)	(45.8)
Probable	(0.25)	(10.2)	(2.5)	(10.4)	-	-	(201)	(7.8)	(2.5)	(9.0)	(7.0)	(30.6)
Total	**(0.72)**	**(16.5)**	**(6.5)**	**(15.0)**	**-**	**-**	**(746)**	**(15.2)**	**(7.9)**	**(15.7)**	**(14.0)**	**(36.7)**

In comparison to 2023, Atacocha's Open Pit Mineral Reserves decreased by 16.5% in mass and by 15.0% in zinc content (kt), mainly due to the yearly depletion of reserves not fully compensated by additional drilling.

Atacocha Open Pit – Year End Mineral Resources as of December 31, 2024 (on an 81.78% Nexa Attributable ownership basis) (1)

Class	Tonnage (2)	Grade					Contained Metal				
		Zinc	Copper	Silver	Lead	Gold	Zinc	Copper	Silver	Lead	Gold
	(Mt)	(%)	(%)	(g/t)	(%)	(g/t)	(kt)	(kt)	(koz)	(kt)	(koz)
Measured	1.61	1.21	-	29.4	0.82	0.18	19.4	-	1,521	13.3	9.1
Indicated	3.50	0.99	-	28.4	0.87	0.23	34.7	-	3,204	30.4	25.8
Total	**5.11**	**1.06**	**-**	**28.8**	**0.85**	**0.21**	**54.1**	**-**	**4,726**	**43.6**	**34.9**
Inferred	1.51	1.33	-	31.3	1.11	0.20	20.0	-	1,514	16.8	9.8

Notes:
1. Subpart 1300 of Regulation S-K definitions were followed for Mineral Resources, which also are consistent with the CIM (2014) definitions.
2. Mineral Resources Tonnes and Contained Metal presented in this table are reported on 81.78% Nexa attributable ownership.
3. Mineral Resources are reported exclusive of those Mineral Resources that were converted to Mineral Reserves, and Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
4. The Qualified Person for the Mineral Resources estimate is Jerry Huaman Abalos, B.Geo., MAusIMM CP(Geo), a Nexa employee.
5. Numbers may not add due to rounding.
6. The point of reference for Mineral Resources in this table is mill feed materials.

Atacocha Open Pit – Year End Mineral Resources as of December 31, 2024 (on a 100% ownership basis) (1)

Class	Tonnage (2)	Grade					Contained Metal				
		Zinc	Copper	Silver	Lead	Gold	Zinc	Copper	Silver	Lead	Gold
	(Mt)	(%)	(%)	(g/t)	(%)	(g/t)	(kt)	(kt)	(koz)	(kt)	(koz)
Measured	1.96	1.21	-	29.5	0.82	0.18	23.7	-	1,860	16.2	11.1
Indicated	4.29	0.99	-	28.4	0.87	0.23	42.5	-	3,918	37.1	31.5
Total	**6.25**	**1.06**	**-**	**28.8**	**0.85**	**0.21**	**66.2**	**-**	**5,778**	**53.4**	**42.6**
Inferred	1.84	1.33	-	31.3	1.11	0.20	24.4	-	1,851	20.5	11.9

Notes:
1. Subpart 1300 of Regulation S-K definitions were followed for Mineral Resources, which also are consistent with the CIM (2014) definitions.
2. Mineral Resources data presented in this table represents 100% of the Mineral Resources estimates for the property. Nexa owns 81.78%.
3. Mineral Resources are reported exclusive of those Mineral Resources that were converted to Mineral Reserves, and Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
4. The Qualified Person for the Mineral Resources estimate is Jerry Huaman Abalos, B.Geo., MAusIMM CP(Geo), a Nexa employee.
5. Numbers may not add due to rounding.
6. The point of reference for Mineral Resources in this table is mill feed materials.

The Atacocha Open Pit Mineral Resources estimates in the table above were completed using Datamine and Leapfrog software. Wireframes for geology and mineralization were constructed in Leapfrog based on geology sections, assay results, lithological information, underground and open pit mapping and structural data. Assays were capped to various levels based on exploratory data analysis and then composited to 2.0 m lengths. Wireframes were filled with blocks and sub-celling at wireframe boundaries. Blocks were interpolated with grade using the OK and ID^3 interpolation algorithms. Block estimates were validated using industry standard validation techniques. Classification of blocks used distance-based and mineralization continuity criteria. Mineral Resources are reported within resources open pit shell. The Mineral Resources are estimated at a NSR cut-off grade values of US$20.42/t. Mineral Resources estimates are based on average long-term metal prices of zinc: US$3,294.64/t (US$1.49/lb); lead: US$2,412.07/t (US$1.09/lb); gold: US$2,237.96/oz and silver: US$28.55/oz. Metallurgical recoveries are accounted for in NSR calculations based on historical processing data and are variable as a function of head grade. Recoveries at LOM average head grades are 70.44% for Zn, 83.98% for Pb, 75.76% for Ag, and 65.46% for Au.

Atacocha Open Pit – Net Difference in Mineral Resources between December 31, 2024 (on an 81.78% Nexa attributable ownership basis), versus December 31, 2023 (on a 75.96% Nexa attributable ownership basis)

Class	Tonnage		Contained Metal Zinc		Copper		Silver		Lead		Gold	
	(Mt)	%	(kt)	%	(kt)	%	(koz)	%	(kt)	%	(koz)	%
Measured	0.24	17.5	1.9	11.1	-	-	140	10.2	1.3	11.2	0.74	8.9
Indicated	0.56	18.9	3.8	12.4	-	-	457	16.7	3.9	14.6	3.1	13.5
Total	**0.80**	**18.5**	**5.8**	**11.9**	**-**	**-**	**598**	**14.5**	**5.2**	**13.5**	**3.8**	**12.2**
Inferred	0.21	16.6	3.6	21.7	-	-	156	11.5	1.9	12.8	0.7	7.1

Atacocha Open Pit – Net Difference in Mineral Resources between December 31, 2024, versus December 31, 2023 (on a 100% ownership basis)

Class	Tonnage		Contained Metal Zinc		Copper		Silver		Lead		Gold	
	(Mt)	%	(kt)	%	(kt)	%	(koz)	%	(kt)	%	(koz)	%
Measured	0.16	9.2	0.7	3.2	-	-	42	2.3	0.5	3.3	0.1	1.1
Indicated	0.41	10.4	1.8	4.4	-	-	302	8.4	2.2	6.4	1.6	5.4
Total	**0.57**	**10.0**	**2.5**	**3.9**	**-**	**-**	**344**	**6.3**	**2.8**	**5.4**	**1.7**	**4.2**
Inferred	0.14	8.3	2.8	13.0	-	-	64	3.6	0.9	4.7	(0.1)	(0.5)

In comparison to 2023, Atacocha's Open Pit Inferred Mineral Resources increased by 8.3% in mass and by 13.0% in zinc content (kt), mainly due to higher metal prices. In comparison to 2023, Atacocha's Open Pit Measured and Indicated Mineral Resources increased by 10.0% in mass and by 3.9% in zinc content (kt), mainly due to higher metal prices.

For additional information, see the Technical Report Summary on the Cerro Pasco Complex Integration, filed as Exhibit 15.2 to Nexa's annual report on Form 20-F for the year-ended December 31, 2023, as filed on March 27, 2024.

Aripuanã

Location and means of access

The Aripuanã mine is located in the northwest corner of the Mato Grosso State in western Brazil, approximately 2,529 km by railroad and road to the Três Marias smelter, 2,831 km to the Juiz de Fora smelter or 2,660 km to the port of Santos. The approximate coordinates of the mine are 226,000m E and 8,888,000m N UTM 21L zone (South American 1969 datum) and the mine is located at an average elevation of 250 meters above sea level. The mine is accessible from the town of Aripuanã via a 25 km unpaved road, which is well maintained in the dry season. Aripuanã can be accessed from the state capital, Cuiabá, via a 16-hour drive (935 km) on paved and unpaved roads. The final 250 km between Cuiabá and Aripuanã are on unpaved roads.

The town of Aripuanã is also serviced by a paved airstrip suitable for light aircraft. There are no commercial flights travelling between Cuiabá and the town of Aripuanã. However, the site can be accessed via a three-hour chartered flight.

History

Aripuanã is an underground polymetallic mine containing zinc, lead and copper, located in the state of Mato Grosso, Brazil. In 2000, Dardanelos was created to represent a joint venture, or "contract of association," between Karmin and Anglo American, with the intent of exploring the areas adjacent to the town of Aripuanã for base and precious metals. Anglo American and Karmin held 70% and 28.5% of Dardanelos, respectively, with the remaining interest (1.5%) owned by SGV Merchant Bank ("SGV").

In 2004, the initial agreement between Karmin and Anglo American was amended to include Nexa Brazil's participation. Nexa Brazil subsequently acquired 100% of Anglo American's interest in the project. In 2007, Karmin purchased SGV's interests, raising its participation to 30%. In 2015, Nexa Peru acquired 7.7% of Nexa Brazil's interests in Dardanelos. In 2019, Nexa Brazil became the owner of 100% of the Aripuanã mine.

In 2020, we reached an agreement with artisanal miners working adjacent to the property belonging to our Aripuanã mine, the ANM and the state government whereby Nexa assigned these artisanal miners an area to exercise their activities subject to certain conditions. The increase of artisanal mining activity or the failure of these artisanal miners to abide with our agreement may have an adverse effect on the development of our operations in Aripuanã.

In 2021, Nexa acquired two estates (584.9 hectares) located at the vicinity of the mine and concluded the process of documenting a third acquired in the past (100.0 hectares). The total land purchase of 684.9 hectares was required to meet the Rural Environmental Registration (CAR in Brazil) which requires areas of native vegetation that are not available within the area of enterprise.

In 2022, Nexa acquired six estates (1,332.4 hectares), located at the vicinity of the mine. The Rural Environmental Registry (CAR) was updated by Nexa and is in the process of being approved by the environmental agency, and, as of the date of this filing, we have not received a response from the environmental agency. On January 25, 2022, we signed an offtake agreement with a third-party international player (the "offtaker"), in which Nexa agreed to sell 100% of the copper concentrate produced by Aripuanã for a 5-year period starting in February 2023 and limited to 30,810 tonnes, at the lower of current market prices or a price cap. In September 2023, the parties agreed to amend the offtake agreement, which states that no penalty will be applied in case of delays in the agreed shipment schedule per year. However, if lower volumes are delivered in any year within the contract period, at the end of the contract period, the remaining balance will be shipped in a single additional delivery to total the 30,018 tonnes. The offtake agreement was structured to completely extinguish a previous existing future royalty obligation that Nexa had with the offtaker. Additionally, the Company opted to voluntarily and irrevocably designate the entire offtake agreement at fair value through profit and loss within the scope of IFRS Accounting Standards 9 rather than separate the value of the embedded derivative associated with the price cap, recognizing a non-cash accumulated loss of US$3.3 million in the income statement for the period ended on December 31, 2024. For further details on the offtake agreement, see Note 16(v) to our consolidated financial statements.

Ramp-up activities at the Aripuanã mine started in July 2022, and the mine continued production in the ramp-up phase for the duration of 2023 and into 2024. In June 2024, the Aripuanã mine concluded its ramp up phase and transitioned to an operational mine. We expect to reach nameplate capacity during the second half of 2025. For further information, see "Project implementation", below.

Titles, leases and options

The mine holds one mining concession in the core area that has a total area of 3,639.9 hectares, two mining concession applications totaling 1,368.5 hectares, one right to apply for mining concession with 1,000.0 hectares and nine exploration authorizations totaling 35,152.7 hectares.

The Aripuanã mine holds surface rights sufficient to support the future operations. There is sufficient suitable land available within the mineral rights held by the Company for tailings disposal, mine waste disposal, and installations such as the process plant and related mine infrastructure.

The Aripuanã mine holds several permits and licenses supporting its current operations. The operating license renewal was submitted on time and is currently under review.

Mineralization

The Aripuanã region contains polymetallic VMS deposits with zinc, lead and copper, as well as small amounts of gold and silver, present in the form of massive mantles and veins, located in volcano sedimentary sequences belonging to the Roosevelt Group of Proterozoic age.

Four main elongated mineralized zones have been defined in the central portion of the mine: (1) Arex, (2) Link, (3) Ambrex and (4) Babaçu. Limited exploration has identified possible additional mineralized bodies including Massaranduba, Boroca, and Mocotó to the south and Arpa to the north.

The Aripuanã polymetallic deposits are typical VMS deposits associated with felsic bimodal volcanism. The individual mineralized bodies have complex shapes due to intense tectonic activity. Stratabound mineralized bodies tend to follow the local folds, however, local-scale, tight isoclinal folds are frequently observed, usually with axes parallel to major reverse faults, causing rapid variations in the dips.

Massive, stratabound sulphide mineralization as well as vein and stockwork-type discordant mineralization have been described on the property. The stratabound bodies, consisting of disseminated to massive pyrite and pyrrhotite, with well-developed sphalerite and galena mineralization, are commonly associated with the contact between the middle volcanic and the upper sedimentary units. Discordant stringer bodies of pyrrhotite-pyrite-chalcopyrite mineralization are generally located in the underlying volcanic units or intersect the massive sulphide lenses and have been interpreted as representing feeder zones.

In 2024, Aripuanã's strategy aimed to increase throughput rate and asset reliability, reduce plant downtime, improve metal recoveries, concentrate grades and quality while consuming our ore stockpile inventory, which was supported by infill drilling at Babaçu target to extend the Aripuanã LOM.

The Mineral Exploration brownfield program in 2024 was focused on identifying new mineralized zones in the Massaranduba target through exploratory drilling and the results confirmed the continuity of mineralization in the southeast extension of the Aripuanã trend.

In 2024, we spent a total of US$4.0 million on the Aripuanã brownfield program, including Aripuanã's exploratory drilling program and infill drilling campaign. The total investment included drilling, geological activities, geochemistry, and more. In 2024, we drilled 6.5 km of diamond drilling in 9 drill holes, including Massaranduba exploratory drilling. For 2025, we expect to invest US$4.0 million in the brownfield exploration program to drill 10.0 km focusing on Massaranduba exploratory and conversion drilling.

Ramp-up activities

Ramp-up activities at the Aripuanã mine started in July 2022, and the mine continued in the ramp-up phase through 2023 and into 2024. In June 2024, the ramp-up phase was concluded and Aripuanã transitioned to an operational mine.

In the fourth quarter of 2024, we achieved an average of 67.0% of capacity utilization level, reflecting the impact of maintenance activities, tailings filter constraints, and heavy rainfall during the period, which was 20% higher than in 2023. We continue to focus on improving operational performance, with a particular focus on the tailings filter circuit. While capacity has significantly increased since production startup, challenges persist due to current constraints. To resolve this, we acquired a fourth tailings filter, which we expect to be delivered and installed during the second half of 2025, with commissioning expected for the first quarter of 2026. This upgrade will further enhance utilization capacity, ensuring optimal performance and in line with our commitment to operational excellence.

At the end of 2024, approximately 57.0kt of ore was stockpiled. Horizontal mine development reached an accumulated of 41.2 meters developed for both mines (Arex and Link). As of the date of this filing, the mine is fully operational, and underground activities are focused on developing and preparing new areas for mining operations.

As of December 31, 2024, 855 people were employed at Aripuanã. We also continued the qualification program for future mine and plant operating professionals, which had 95 candidates enrolled in 2024, of which 64.2% (61) obtained professional qualifications in the areas of maintenance and automation, and geology and surveying. The company hired 41.0% (25) of the attendees that obtained professional qualifications, of which 60.0% (15) are men and 40.0% (10) are women.

To date, cumulative incurred expansion capital expenditures on the mine total US$632.7 million, and we have not made any new expansion capital expenditures on the mine since 2022.

Operations and infrastructure

The Aripuanã operation consists of two fully mechanized underground mines, the Arex Mine and Link Mine, which have been in operation since 2019. These mines use rubber-tired diesel equipment for development and production activities, with a production rate of approximately 2.3 Mtpy. Access to the mine is through one portal for Arex and one portal for Link. Production drilling operations have been carried out by company personnel using various drilling machines throughout the history of the Aripuanã mine. The Aripuanã processing plant has been in operation since 2022.

All infrastructure required for the current mining and processing operations has been constructed and is operational. This includes the underground mines, access roads, power lines, water pipelines, offices and warehouses, a processing plant/concentrator, conveyor systems, waste rock facilities, temporary ore stockpiles, paste-fill plants, and tailings storage facilities.

The Aripuanã mine is connected to the main grid at 230 kV, with energy measurement and billing conducted at SE Dardanelos, 20 km away, using a 69 kV line to the unit. Power distribution occurs at 13.8 kV, and the unit is equipped with a 25/31 MW transformer. Currently, the contracted power demand with Energisa S.A. is 23 MW during peak hours and 20.7 during off-peak hours. Additionally, there are five 750 kVA diesel generators in place.

In 2024, we spent US$38.6 million on sustaining capital expenditures for this property, primarily associated with mine development, equipment replacement, and other major infrastructure projects.

Production

The Aripuanã mine was in ramp-up phase during fiscal years 2022, 2023 and the first half of 2024 and has a treatment plant with a nominal design processing capacity of approximately 6,300 tonnes of ore per day. The table below summarizes the Aripuanã mine's concentrate production, metal contained in concentrates produced and average grades for the periods indicated. Production in 2024 was higher than in 2023 due to operational improvements and process adjustments throughout the year.

	For the Year Ended December 31,		
	2024	**2023**	**2022**
Treatment ore (in tonnes)	1,475,566	1,311,430	100,114
Average ore grade			
Zinc (%)	3.23	3.31	2.44
Copper (%)	0.56	0.68	0.49
Lead (%)	1.12	1.05	0.00
Silver (ounces per tonne)	1.17	0.96	0.61
Gold (ounces per tonne)	0.017	0.015	0.011
Metal contained in concentrate production			
Zinc (in tonnes)	31,613	22,099	670
Copper (in tonnes)	5,519	4,443	195
Lead (in tonnes)	13,062	6,331	0
Silver (in oz)	1,101,313	513,916	20,497
Gold (in oz)	14,037	7,954	273
Cash Cost, net of by-product credits (in US$/t)	-	-	-
Cash Cost, net of by-product credits (in US$/lb)	-	-	-
Non-Expansion Capital Expenditures (in millions of US$)	42.7	60.1	68.4

Mineral Reserves and Mineral Resources

The Aripuanã Mineral Reserves estimates are based on the definitions for Mineral Reserves in SK-1300 and the tables below are based on costs and modifying factors from the Aripuanã mine.

Aripuanã – Year End Mineral Reserves as of December 31, 2024 (on a 100% ownership basis) (1)

Class	Tonnage (2)	Grade					Contained Metal				
		Zinc	Copper	Silver	Lead	Gold	Zinc	Copper	Silver	Lead	Gold
	(Mt)	(%)	(%)	(g/t)	(%)	(g/t)	(kt)	(kt)	(koz)	(kt)	(koz)
Proven	5.86	3.79	0.20	33.1	1.37	0.24	222.0	11.9	6,230	80.3	44.7
Probable	26.82	4.69	0.11	42.6	1.81	0.19	1,258.2	29.7	36,719	485.3	163.7
Total	**32.68**	**4.53**	**0.13**	**40.9**	**1.73**	**0.20**	**1,480.2**	**41.6**	**42,949**	**565.6**	**208.3**

Notes:
1. Subpart 1300 of Regulation S-K definitions were followed for Mineral Reserves, which also are consistent with the CIM (2014) definitions.
2. Mineral Reserves data presented in this table represents 100% of the Mineral Reserves estimates for the property. Nexa owns 100% of property.
3. The Qualified Person for the Mineral Reserves estimate is Vitor Ferraz Viana, B.Eng., FAusIMM, a Nexa employee.
4. Numbers may not add due to rounding.
5. The point of reference for Mineral Reserves in this table is mill feed materials.

The Aripuanã Mineral Reserves estimates are based on four main orebodies: Arex, Link and Ambrex and the two main types of mineralization in the deposit are stratabound and stringer. The main commodities produced are zinc, copper, lead, silver and gold. The dilution that has been applied is related to the selected mining method. The two main mining methods used at Aripuanã are longitudinal longhole retreat (“bench stoping”) and transverse longhole mining (vertical retreat mining, or “VRM”) with primary and secondary stope extraction. Dilution is applied on a percentage basis, with no grade applied to the diluting material. The NSR factors were determined using long-term metal price forecasts, metallurgical recoveries, transport, treatment, and refining costs. A break-even NSR cut-off value is US$60.68/t processed was estimated from forecasted operating costs and some incremental material between US$49.00/t and US$60.68/t was included. A minimum mining width of 4.0 m was used for bench stoping and 15.0 m for VRM. The long-term prices derived are in line with the consensus forecasts from banks and independent institutions. Mineral Reserves estimates are based on average long-term metal prices of zinc: US$2,864.90/t (US$1.30/lb); copper: US$9,095.61/t (US$4.13/lb); lead: US$2,097.45/t (US$0.95/lb); and silver: US$24.83/oz; and gold: US$1,946.05/oz. Recoveries at LOM average head grades are 91.08% for Zn, 84.92% for Pb, 60.00% for Cu, 68.00% for Ag, and 67.80% for Au. The current LOM plan continues to 2039.

Aripuanã – Net Difference in Mineral Reserves between December 31, 2024, versus December 31, 2023 (on a 100% ownership basis)

Class	Tonnage		Contained Metal									
			Zinc		Copper		Silver		Lead		Gold	
	(Mt)	%	(kt)	%	(kt)	%	(koz)	%	(kt)	%	(koz)	%
Proven	(0.57)	(8.8)	(24.2)	(9.8)	(1.9)	(13.9)	(763)	(10.9)	(9.6)	(10.7)	(12.5)	(21.8)
Probable	2.18	8.8	153.1	13.9	(2.1)	(6.7)	3,110	9.3	58.0	13.6	(3.6)	(2.1)
Total	**1.61**	**5.2**	**128.9**	**9.5**	**(4.0)**	**(8.9)**	**2,347**	**5.8**	**48.4**	**9.3**	**(16.0)**	**(7.1)**

In comparison to 2023, Aripuanã’s Mineral Reserves increased by 5.2% in mass and increased by 9.5% in zinc content (kt), mainly due to the geological model reinterpretation in the Ambrex area and infill drilling at the Babaçu area. Mineral Reserve depletion during 2024 accounted for 1.6Mt containing 46.9kt of zinc.

Aripuanã – Year End Mineral Resources as of December 31, 2024 (on a 100% ownership basis) (1)

Class	Tonnage (2)	Grade					Contained Metal				
		Zinc	Copper	Silver	Lead	Gold	Zinc	Copper	Silver	Lead	Gold
	(Mt)	(%)	(%)	(g/t)	(%)	(g/t)	(kt)	(kt)	(koz)	(kt)	(koz)
Measured	0.49	2.16	0.39	18.6	0.71	0.50	10.6	1.9	293	3.5	7.9
Indicated	4.91	3.41	0.20	33.5	1.26	0.28	167.4	9.8	5,288	61.9	44.2
Total	**5.40**	**3.30**	**0.22**	**32.1**	**1.21**	**0.30**	**178.0**	**11.7**	**5,581**	**65.4**	**52.1**
Inferred	44.19	3.16	0.31	41.2	1.21	0.38	1,396.4	137.0	58,535	534.7	539.9

Notes:
1. Subpart 1300 of Regulation S-K definitions were followed for Mineral Resources, which also are consistent with the CIM (2014) definitions.
2. Mineral Resources data presented in this table represents 100% of the Mineral Resources estimates for the property. Nexa owns 100% of property.
3. Mineral Resources are reported exclusive of those Mineral Resources that were converted to Mineral Reserves, and Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
4. The Qualified Person for the Mineral Resources estimate is José Antonio Lopes, B.Geo., FAusIMM(Geo), a Nexa employee.
5. Numbers may not add due to rounding.
6. The point of reference for Mineral Resources in this table is mill feed materials.

The Mineral Resources estimates for the Aripuanã mine were completed for Babaçu, Arex, Ambrex and Link. The block models were created using Datamine and Leapfrog software. Wireframes for geology and mineralization were constructed in Leapfrog based on geology sections, assay results, lithological information and structural data. Assays were capped to various levels based on exploratory data analysis and then composited to one-meter lengths. Wireframes were filled with blocks measuring 5 meters by 5 meters by 5 meters with sub-celling at wireframe boundaries. Blocks were interpolated with grade using the OK and ID^3. Blocks estimates were validated using industry standard validation techniques. Classification of blocks was based on distance-based criteria. Potentially mineable shapes of underground mineral resources are generated using DSO software. The Mineral Resources of the Aripuanã mine are reported using a cut-off value of US$60.68/t. Mineral Resources estimates are based on average long-term metal prices of: zinc: US$3,294.64/t (US$1.49/lb); copper: US$10,459.95/t (US$4.74/lb); lead: US$2,412.07/t (US$1.09/lb); silver: US$28.55/oz and gold: US$2,237.96/oz. Metallurgical recoveries are accounted for in NSR calculations based on metallurgical test work and are variable as a function of head grade and ore type. Recoveries at the LOM average head grades material are 91.08% for Zn, 84.92% for Pb, 60.00% for Cu, 68.00% for Ag, and 67.80% for Au.

Aripuanã – Net Difference in Mineral Resources between December 31, 2024, versus December 31, 2023 (on a 100% ownership basis)

Class	Tonnage		Contained Metal									
			Zinc		Copper		Silver		Lead		Gold	
	(Mt)	%	(kt)	%	(kt)	%	(koz)	%	(kt)	%	(koz)	%
Measured	0.14	40.0	1.5	16.5	0.5	35.7	33	12.7	0.5	16.7	3.8	92.7
Indicated	(0.28)	(5.4)	(37.6)	(18.3)	0.5	5.4	(552)	(9.5)	(13.9)	(18.3)	(0.9)	(2.0)
Total	**(0.14)**	**(2.5)**	**(36.1)**	**(16.9)**	**1.0**	**9.3**	**(519)**	**(8.5)**	**(13.4)**	**(17.0)**	**2.9**	**5.9**
Inferred	5.44	14.0	51.8	3.9	9.1	7.1	1,600	2.8	(3.9)	(0.7)	4.2	0.8

In comparison to 2023, Aripuanã's Inferred Mineral Resources increased by 14.0% in mass and by 3.9% in zinc content (kt) in 2024, mainly due to the Ambrex mineralized zone model review, increased grade and geological continuity. In comparison to 2023, Aripuanã's Measured and Indicated Mineral Resources decreased by 2.5% in mass and by 16.9% in zinc content (kt) in 2024, mainly due to the conversion to Mineral Reserves.

For additional information, see the "Technical Report Summary on Aripuanã", filed as Exhibit 15.4 to our annual report on Form 20-F/A for the year-ended December 31, 2020, as filed on November 4, 2021.

Concentrate sales

All the metal produced by our mines is processed into concentrates. Our mining operations sell the concentrates that they produce to third parties and to our own smelters pursuant to arm's length transactions. Each mine bears the cost of transporting the concentrate to the point of sale where the smelter or trader purchases the concentrate. The smelter or trader pays the mine for the percentage of metals contained in the concentrate, net of charges for treating the concentrate and refining the metals. The typical payable percentage is 85.0% for zinc contained in concentrate, 96.5% for copper contained in concentrate and 95.0% for lead contained in concentrate, minus treatment charges.

Growth projects

In addition to Nexa's operating mines and smelters, a component of our business focuses on growth and exploration, which are activities associated with ascertaining the existence, location, extent or quality of a mineral deposit. Our exploration activities encompass brownfield and greenfield projects. Brownfield projects are exploration or development projects near or within our existing operations, which can share infrastructure and management of our existing operations. Greenfield projects are exploration or development projects that are located outside the area of influence of our existing mine operations and/or infrastructure, which will be independently developed and managed from our existing operations.

Vazante mine deepening project and other Vazante initiatives

One of our main brownfield projects is the Vazante mine deepening project, which involves extending the mine life of Vazante. The capital expenditures related to this project in 2024 totaled US$0.4 million, and an additional US$1.8 million towards other expansion projects, focusing on the LOM extension. We expect to invest an additional US$0.3 million in 2025 for the deepening project and US$1.7 million for several other expansion projects at the Vazante mine. The Vazante mine deepening project began in 2013 and the completion of this project, which was expected to occur in 2024, was postponed due to our capital allocation strategy and the focus on other Vazante initiatives, which is now expected to be completed in 2028.

In addition, we are conducting exploration activities below the mine's current operating level and alongside the orebody. As part of this project, we are investing in ongoing exploration activities and infrastructure, including expansion of an underground pumping station, an increase in the capacity of the ventilation system, emergency paths, access ramps, electrical networks and substations. In 2023, we prepared the area to receive such equipment in accordance with the project's specifications and in 2024 we completed activities in accordance with the updated project schedule. In 2025, we expect to begin civil works and complete it in 2026. For 2027 and 2028, planned activities involve the execution of electromechanical work to complete mechanical operations.

Cerro Pasco Complex Integration Project

The Cerro Pasco Complex Integration Project is one of our main brownfield projects, which involves the continued integration of the El Porvenir and Atacocha underground mines. The Integration Project is intended to continue to capture synergies between the two mining operations, as a result of their proximity and operational similarities, with ore from both the underground mines being processed at the El Porvenir processing plant. The goal of the Integration Project is to achieve cost and investment savings, thereby reducing the environmental footprint and extending the combined LOM of the two mines. In the fourth quarter of 2024, our Board of Directors, through the Finance Committee approved the first phase of the project, the tailings pumping and piping system, following a recommendation from the SCP committee. For further information see "Information on the Company—Mining Operations—Cerro Pasco Complex—Integration Project."

Bonsucesso

The Bonsucesso project is a greenfield underground mine project that was formerly part of the Morro Agudo complex (Ambrósia Trend). The Bonsucesso project was not included in the sale of the Morro Agudo complex. The project is located 8 km north of the Ambrósia Sul mine and approximately 60 km north of the Morro Agudo mine.

In 2024, we had no exploratory activities in the Bonsucesso project, and no activities are expected for 2025.

The feasibility study was concluded in 2022 with no amount invested since. The total investments related to this project, as of December 31, 2024, totaled US$12.7 million, which includes all project studies (from the scoping study to the feasibility study) and incurred expenses related to construction and operating infrastructure.

The strategic review of our assets continues with initiatives to optimize our portfolio. We continue to assess risk-return alternatives, and we are currently revisiting the project, taking into consideration our capital allocation strategy and our focus on free cash flow generation.

Mining greenfield projects

Project Name	Current Project Status
Magistral	Under Review
Hilarión	Exploration phase
Florida Canyon Zinc	Exploration phase

We summarize below certain information, including the outlook, for each of our greenfield projects. As of the date of this annual report, none of our greenfield projects have Mineral Reserves under S-K 1300.

Magistral

The Magistral mining project is located in the Ancash region of Peru, approximately 450 km northeast of the capital of Lima and approximately 140 km east of the port city of Trujillo. The Magistral property can be reached by vehicle by driving a total of 272 km from Trujillo, much of which consists of poorly maintained roads that traverse steep topography. The Magistral Project consists of one large, irregularly shaped block of contiguous concessions and two smaller, non-contiguous single concessions. The Magistral Project comprises 36 granted concessions, totaling 16,416.0 hectares. The project is an open pit copper mine with molybdenum concentrate as a by-product. In 2016, ProInversión approved an initial feasibility study, which set forth production rates starting at 10 thousand tonnes per day and achieving 30 thousand tonnes per day. In 2016, the MINEM approved an environmental impact assessment (“EIA”), to process up to 30 ktpd. In 2023, we requested a modification of the EIA and in May 24, 2024, the National Service for Environmental Certification of Sustainable Investments (*Servicio Nacional de Certificación Ambiental para las Inversiones Sostenibles*, or “SENACE”) formally rejected the modification request of the EIA. We are currently addressing the situation with the relevant authorities, and we expect to reach a solution in 2025. The denial of the permit impacts our assessment of the project’s economic feasibility, technical development, as well as our impairment analysis. Additionally, because of the denial, in June 2024, the Magistral project was tested for impairment resulting in a loss of US$58 million.

Nexa Peru was awarded the contract to develop the Magistral mining project in 2011, which has been amended from time to time. Nexa made an initial payment of US$8.0 million to acquire the Magistral concessions, subject to a 2.0% NSR royalty upon production. Under the terms of the contract in 2016, Nexa Peru exercised the option by committing to invest a minimum 70% of declared initial capital expenditures by September 2024 and as a result of the COVID-19 pandemic, this term was extended by the government for an additional year, starting in September 2024. In 2023, new alignments were finalized, and an additional 35-month extension period was approved by force majeure, extending the period until August 2028. Pursuant to the terms of this commitment with the Peruvian Government to minimum investments levels in the project during this period, Nexa Peru would be required to pay a penalty of 30% of the unexecuted minimum investment commitment if not completed by August 2028. As of December 31, 2024, the unexecuted minimum investment commitment was US$323.0 million, and, if not completed, the penalty exposure would be US$97.0 million. Nexa Peru currently holds a 100.0% interest in 15 of the 36 concessions, Nexa holds 21 concessions by way of a lease agreement entered into with Companía Magistral S.A.C., a company also controlled by Nexa Peru. We spent approximately US$1.7 million on the Magistral project in 2024 and continue to review capital allocation to this project in our portfolio.

Exploration developments

The Magistral property is near the northeastern end of the Cordillera Blanca, a region that is underlain predominantly by Cretaceous carbonate and clastic sequences. These units strike north to northwest and are folded into a series of anticlines and synclines with northwest-trending axes.

Since acquiring the Magistral project in 2011, Nexa has initiated a comprehensive exploration program consisting of geological mapping, prospecting and sampling, ground geophysical surveying, and diamond drilling. Geological mapping at a scale of 1:2,000 was completed in the Ancapata area and the area north-northeast of Magistral. The objective was to verify and supplement the information available from Ancash Cobre's exploration.

From October 2012 to January 2014, Arce Geofisico SAC was contracted to complete ground magnetic and Induced Polarization (IP) surveying over an area of 520 hectares covering the Magistral deposit and the adjoining Ancapata area. The objective was to characterize the geophysical signature of the Magistral deposit and to survey the Ancapata area. Work was completed on 100 m spaced lines oriented at N125°W. An initial 30 line-km survey was expanded to 55.1 line-km of IP and 57.25 line-km of ground magnetics in order to delineate chargeability and resistivity anomalies.

Through the end of 2015, a total of approximately 101,900 m of surface diamond drilling has been completed in 486 drill holes. In addition, 14 short underground diamond holes were drilled for a total of 1,298.8 m in the San Ernesto, Arizona, and Sara zones between 1969 and 1973. In 1999, 2000, and 2001, Anaconda drilled 76 diamond drill holes totaling 24,640 m. All surface drilling from 2000 onward was carried out on northeast (035°) and northwest (305°) oriented sections. In 2004, Ancash Cobre (or Inca Pacific) completed 34 drill holes, totaling 7,985 m, and in 2005 Ancash Cobre (or Quadra) drilled 14,349 m in 60 holes. Milpo's drilling in 2012 was contracted to Redrilsa Drilling S.A. (or Redrilsa). Since 2012, the drilling has been contracted to Geotecnia Peruana S.R. Ltda.

Of the 71 holes drilled in 2013, six were drilled to gain geotechnical information and the remainder were infill holes. Drilling in 2014 consisted of a combination of infill, geotechnical, and metallurgical holes. In 2015, drilling consisted entirely of infill holes, drilling ceased on the property in the same year. No exploration drilling program was carried out since then and no exploratory drilling program is scheduled for 2025.

Hilarión

The Hilarión project is located in the Ancash region of Peru, approximately 230 km north of Lima, the capital of Peru, and approximately 80 km south of the city of Huaraz and is accessible by paved road from Lima. It consists of 48 mineral concessions covering an area of approximately 9,374.0 hectares. Hilarión is a skarn mineral deposit made of vertical tabular ore bodies containing sulfide zinc, lead, silver and copper deposits. Hilarión and El Padrino and other occurrences in proximity to them (Mia, Eureka and others) constitute a large mineralized system, open in several directions for a potential increase in resources, extended mine life and increased production capacity in the future. The conceptual plan for the project includes the development of an underground mine that could either use its own processing plant or use one of the several existing plants in the area, such as Pachapaqui, Huanzala and Atalaya plants.

In 2020, we filed a preliminary economic assessment ("PEA") for the Hilarión project. In 2021 and 2022, we drilled 28.5 km of diamond drilling to confirm and expand the mineralization in Hilarión Sur and west. In 2024, we spent approximately US$2.0 million on the Hilarión project, including mineral rights, project maintenance, geology review works and environmental obligations. We had no drilling activities at the project in 2024. In 2025, we have budgeted US$1.2 million for the Hilarión project maintenance, and we have planned no drilling activities.

Florida Canyon Zinc

The Florida Canyon Zinc project is located in the Eastern Cordillera of Peru at the sub-Andean front in the upper Amazon River Basin, 680 km north-northeast of Lima and 245 km northeast of Chiclayo and is accessible by paved road from Lima. It is comprised of 11 contiguous mining concessions, covering approximately 8,700.0 hectares, is owned by Minera Bongará S.A. and operated by Nexa Peru, a joint venture between Nexa Peru, Solitario Exploration and Royalty Corp. and Minera Solitario Peru S.A.C. (collectively, Solitario) in existence since 2006. As of December 31, 2024, Nexa Peru owns a 61.00% interest in this joint venture, which may increase up to 70.00% upon Nexa Peru's satisfaction of certain conditions.

Although a pre-feasibility study relating to the Florida Canyon Zinc was released in 2017, the project continues to be treated as an advanced mineral exploration project.

In 2022, we advanced the opening of the road that connects the project structures to the main camp and carried out geometallurgical tests to establish better mineralogical and metallurgical knowledge of the deposit, which showed high recovery of zinc and lead concentrates, as well as the presentation of the fifth environmental modification to the competent body.

In 2023, drilling at the Florida Canyon began in the third quarter due to a delay in the drilling program caused by lack of transportation for drilling materials. In September 2023, construction and maintenance of the motorized trail, which aims to reach La Florida Annex, commenced and was completed in 2024.

In 2024, we focused on maintenance of local infrastructure, such as opening access to receive future drilling campaigns.

We spent approximately US$2.0 million on this project in 2024, and we have budgeted US$1.5 million for the Florida Canyon project in 2025, including road maintenance, geological review and social programs. No drilling activities are planned for 2025.

Other Greenfield exploration projects

Project in Namibia

We have been developing exploratory work in Namibia since 2015, as part of a joint venture with the Japan, Oil, Gas and Metals National Corporation ("JOGMEC"), a Japanese state-owned company. The project was part of a farm-out process of the Namibian tenements inherited from the former strategy of Votorantim Metals to explore opportunities in Africa, where Nexa has a back-in right to invest and maintain participation depending on exploration results. The exploration area is located 360 km north of Windhoek. This early-stage exploratory program is targeting sediment-hosted copper mineralization, such as the Tsumeb and Kombat mines, both of which contain rocks from the Otavi Mountain land terrain.

Nexa currently holds 231,152.0 hectares across 12 exclusive prospective licenses ("EPL") in the Tsumeb belt and 154,599.6 hectares across six EPLs for regional targets.

The 2022 exploration expenditures totaled US$3.1 million (US$2.2 million for JOGMEC expenditures and US$0.8 million for Nexa expenditures) with a total of 9.1 km drilled. The focus of the drilling campaign in 2022 was the expansion of mineralization in the Otavi target and the identification of new mineralized zones of the "Deblin" copper trend in the Namibia North target.

The drilling campaign in 2023 was focused on extending the known mineralization from the Deblin trend, intensifying drilling to further investigate polymetallic mineralization identified at the Ondjondjo target and targeting of high-grade copper sediment deposits along the fertile Tsumeb belt. We spent approximately US$2.2 million, divided between Nexa (US$0.3 million) and JOGMEC (US$1.8 million) on this project in 2023 to drill 4.9 km.

Drilling activities in 2024 were focused on the Tsumeb East target, located a few kilometers from the well-known Tsumeb Cu-Pb deposit in a similar geological setting. A total of 2.0 km of exploration drilling was completed in 2024. The completion of the AMT airborne survey, coupled with detailed geological mapping, has delineated high-priority anomalies at the Tsumeb East target. We also drilled these anomalies to define the geological endowment.

To date, we are defining the budget for the project as part of a joint venture with "JOGMEC". Nexa is currently focusing on mapping and defining regional opportunities. In 2025, we plan to execute a geophysical survey to generate new targets to evolve into exploratory drilling in the coming years.

Permits & authorizations for greenfield projects

The following table summarizes the status of the main permits and authorizations for our greenfield projects.

Project	Status
Magistral	An amendment to the EIA was submitted to the SENACE in the fourth quarter of 2021 for its assessment. In October 2023, we responded to SENACE inquiries. The amendment to the EIA was rejected in 2024. All other permits are valid.
Hilarión	The most recent environmental study is the fifth modification to the Hilarión Project's Environmental Impact Statement ("EIS"), which consisted of obtaining approval for new exploration platforms and reviewing the drilling program. The project's EIS study is valid until 2027. The authorization for exploratory activities at the El Padrino deposit was extended until March 2025. Currently, the Ministry of Energy and Mines is evaluating the fourth modification to the EIS. A detailed EIS was approved in 2020, which is valid until 2025. The most recent environmental study for the Azulmina project is the modification of the EIS, which consisted of obtaining approval for new exploration platforms and revising the drilling program. The study is valid until 2028.
Florida Canyon Zinc	The most recent environmental study is the fifth modification to the Florida Canyon Project's EIS, which consisted of obtaining approval for new exploration platforms and reviewing the drilling program. It was approved in 2023 and is valid until 2028.

Tailings disposal

Regulatory framework

In Brazil, tailings dams' failures have triggered the issuance of new regulations. On January 25, 2019, there was a tragic failure of a tailings dam in the city of Brumadinho, in the state of Minas Gerais, Brazil. The Brumadinho dam, that belongs to Vale S.A., was originally built using the upstream method. A report by a panel of technical experts commissioned by Vale S.A. found that the tailings dam failure was the result of flow liquefaction within the tailings in the dam. Another upstream-method tailings dam in Brazil, the Fundão tailings dam owned by Samarco Mineração S.A., failed in November 2015. Each of these failures released muddy tailings downstream, flooded certain communities, caused fatalities and resulted in extensive environmental damage to the surrounding area.

In response to failures of tailings dams in Brazil, the state of Minas Gerais enacted regulations in February 2019 affecting the use of dams in the state, including tailings dams and effluent dams that mandate the decommissioning of all upstream tailings dams and prohibit construction of new tailings dams using the upstream method. Additionally, a rule approved by the ANM requires all inactive upstream dams to be decommissioned by 2021 and active upstream dams to be decommissioned by 2023.

In addition, in February 2019, the state of Minas Gerais enacted regulations that prohibit the construction of a new dam or the expansion of existing dams if communities are established within its self-rescue zone, an area encompassing the portion of the valley downstream of the dam where timely evacuation and intervention by the competent authorities in emergency situations is not possible. All of the tailings dams located in Minas Gerais have permission to operate, however, future licensing for new tailings storage facilities or new raises must consider any community in the hazardous zone. Due to the difficulty in licensing new dams in the state of Minas Gerais, in February 2023 we began industrial-scale testing the technology developed for dry stacking disposal at the Três Marias unit, which consists of filtering the waste pulp for subsequent disposal through the dry stacking process, as waste disposal in this unit was going directly to its tailings deposits. In 2024, the initiative achieved excellent results successfully filtering residue and we continued to develop the project during the initial stages of the industrial-scale test, filtering an average of 92.4% of the operation's material throughout the year. The remaining residue is disposed in the west 1 module of the Murici Deposit. We expect that the Company will be able to utilize dry disposal in the future to reduce the risks for communities in the hazardous zones. Due to these advancements, we began the licensing process for government approval of the dry stacking disposal facility at Três Marias.

In 2020, the mining authorities in Brazil enacted two regulations that establish new procedures related to dams. The first resolution (Resolução ANM 32/2020), decreed in May 2020, determines procedures to develop dam break studies and deadlines to update the Emergency Action Plan ("EAP") depending on the dam class. This regulation updated previous mining agency standards. We have updated the dam break studies of all mining dams according to these procedures. The second resolution (Resolução ANM 51/2020), decreed in December 2020, defines procedures to certify the EAP. In 2022 the ANM enacted Resolution No. 95/2022, amended by Resolution No. 130/2023, which consolidates all dam safety standards by unifying and regulating the innovations promoted by Law No. 14,006/2020.

At the end of 2020, the Brazilian Federal Authorities decreed that the new dam safety law (Law No. 14,006/2020) updates the previous dam safety Law No. 12,334 enacted in 2010. Similar to the regulation enacted in February 2019, this new law defines that new upstream tailings dams and new raises are no longer permitted and that the EAP is mandatory for all mining dams that store tailings. This law also limited the construction of new tailings dams if communities are established within its self-rescue zone. In this case, the mining company must remove the residents or reinforce the dam structure according to the technical solution approved by the ANM. In 2022, the mining authorities in Brazil enacted a regulation that establishes new procedures related to dams (Resolution ANM 95/2022), which consolidated the safety standards for mining dams, revoking several previous regulations (Ordinance DNPM No. 70,389/2017 and Resolutions ANM No. 13/2019, 32/2020, 40/2020, 51/2020 and 56/2021) and also regulated items by the national legislation (Law No. 14,066/2020), which modified the National Dam Safety Policy.

The changes included the alteration of the assumptions of risk category and emergency level classifications, the inclusion of new suspension and interdiction assumptions, and the creation of new obligations such as the Risk Management Process for Mining Dams ("RMPMD"), for high Associated Potential Damage ("APD") dams. The RMPMD consists of the risk assessment of the structure in acceptable and not acceptable "As Low as Reasonably Practicable" terms and integrates the management and decision-making related to mining dams.

In 2021, we began implementing the requirements covered by these regulations to all mining dams including certification of the EAP, staff safety trainings, and dam break simulations in accordance with the new regulation.

In 2022, Nexa revised the EAP for all mining dams to adapt to the new Brazilian regulations and considering the new EAP guidelines, detailed by specific terms of reference (Termos de Referência), which were published in 2021. We sent the EAP to all relevant public agencies and published the document on our website. In 2024, we also conducted the Compliance and Operational Evaluation ("COA") of the EAP for mining, which consists of a legal requirement that aims to certify that the EAPs comply and adhere to the legislation and would be operational in practice in case of an emergency. Thus, the EAP was evaluated by an external company that issued the Compliance and Operability Report ("COR") and Declaration of Conformity and Operability ("DCO") of the EAP.

On December 30, 2023, the State of Minas Gerais published State Decree No. 48,747/2023, regulating the environmental recovery policies that companies are required to have in place in the event of an accident or deactivation of a dam, pursuant to a prior state law passed in 2019. Under State Decree No. 48,747/2023, any dams that meet the requirements established under the 2019 Dam Safety Policy law must have an environmental guarantee policy in place. During the second quarter of 2024, the Decree was amended to modify, among other provisions, the deadline for mining companies to indicate the type(s) of guarantee method(s) they would use. The Company complied with this requirement in September 2024. The amendment also established that mining companies must present 50% of the chosen guarantees by the end of 2024. As of December 31, 2024, Nexa estimates that it will require US$19.1 million to cover the applicable dams under this policy. The guarantee can be made by one of the following methods: (i) cash deposit; (ii) CDB; (iii) bank guarantee; or (iv) guarantee insurance. The Company, on December 27, 2024, filed the environmental recovery proposal, contracting for 50% of the guarantee by December 31, 2024, totaling US$9.6 million for all its structures in Minas Gerais through bank guarantees. For 2025, subject to the approval of the environmental agency, an additional 25% must be contracted for by December 31, 2025, and 25% by December 31, 2026, following the schedule previously established by the Decree and the Company expects to comply with this requirement. However, on December 31, 2024, a new Decree was published, further amending the wording of Decree 48,747/2023. This amendment stipulated that the deadline for submitting guarantees would only begin after the environmental agency approves the proposal. Since the new Decree was published after Nexa submitted its guarantees, it will be necessary to await the environmental agency's analysis and address any adjustments required under the revised wording.

In 2024, a new resolution was published by the State of Minas Gerais (GMG Resolution No. 83, of the Civil Defense), in Brazil, which establishes the minimum requirements for the preparation, analysis and approval of the second section of the Dam Emergency Action Plan (*PAE*), following the powers of the Civil Defense of Minas Gerais, according to State Decree No. 48,078, of November 5, 2020. This resolution aims to standardize and ensure the effectiveness of emergency measures in dams. Among the main new requirements are the implementation of geotechnical monitoring rooms, which operate 24 hours a day, 7 days a week, in addition to changes in the sounding of alert sirens, which are currently in the process of being implemented in the units of Três Marias, Juiz de Fora and being adapted in Vazante. These new requirements reflect the industry's, and thereby our, focus on improvement of safety and monitoring structures, increasing the efficiency of emergency prevention and response actions at dams.

In Peru, the upstream method has long been an abandoned practice due to seismic concerns in the region. As of 1995, compulsory guidelines were passed prohibiting the use of such method. Subsequently, in 2014 environmental regulators, and later technical regulators, in 2015, adopted the same guidelines prohibiting construction and operation under the upstream method, allowing only the use and construction under the centerline and downstream methods. A specialized governmental agency carries out periodically inspections of tailings dam and mining infrastructure, ensuring technical and environmental regulations are complied with. In addition, mining operations must submit biannual stability studies, to which they are held liable. We follow these guidelines, and all operative tailings dams use the downstream and centerline lift methods.

In December 2023, the Peruvian government issued Supreme Decree No. 034-2023-EM which amended the Occupational Health and Safety in Mining regulation by adding a chapter on management and safety requirements for waste and tailings disposal facilities. The main requirements of the Decree can be summarized as new needs for studies to be carried out, updating the emergency response plan, contemplating a dam break scenario, implementation of alarm systems, among other devices. Most of the items were already or have been implemented. The alarm system is in the implementation phase.

El Porvenir's tailings dam is currently supported by an authorization for operation up to an altitude of 4,066 meters above sea level ("masl"), which was granted by the Ministry of Energy and Mines on August 28, 2024, the previous authorization was for 4,064 masl. Activities to expand the El Porvenir's tailings dam to an elevation up to 4,070 masl are underway and the authorization for this new elevation is expected to be obtained by the end of 2025.

For more information, see "Risk factors—Operational risks—The failure of a tailings dam could negatively impact our business, reputation and results of operations, and the implementation of associated regulations and decommissioning processes may be expensive."

Nexa's practices

We monitor tailings and waste dams in accordance with international best practice guidelines for management and project design based on criteria set by the International Commission on Large Dams ("ICOLD") and the Canadian Dam Association ("CDA") dam safety guidelines. In 2024, all of our tailings dams in Brazil received Stability Condition Declarations ("DCEs"), certifying that these facilities are safe and stable. In Brazil, these certifications are carried out twice a year for mining and smelting dams. In Peru, they occur once a year. As of the date of this annual report, all tailings dams in Peru and Brazil have undergone the certification process, and we concluded a technical report for these dams during the first half of 2024. In addition, all our dams and dry stacking structures are monitored under a system known as the *Sistema de Gestão de Barragens ou Depósitos*/Tailing Dam Management System ("SIGBAR/SIGDEP"), which consists of procedures, tools and key performance indicators, monthly reports and monitoring and analysis by an independent Geotechnical Engineer. The monitoring procedures include regular inspections, as well as internal and external audits.

In addition to the above-mentioned policies and procedures, our SCP committee assists and advises our Board in supporting safe and sustainable business practices in our conduct and activities, as well as in reviewing technical, economic and social matters with respect to our projects.

In 2024, we began the process of implementing standards delineated by the Global Industry Standard Tailings Management ("GISTM") at the Vazante unit. This is an important step in our tailings management process, as we are focused on incorporating global standards for tailing management into our operations. At the same time, we underwent

a review process conducted by our first Independent Tailings Review Board ("ITRB"), a process prescribed by GISTM. The main objective of the ITRB is to provide technical and strategic recommendations to ensure the safety and compliance of dams with international best practices, reducing environmental, social and financial risks. The scope of the ITRB assessment varies depending on the applicable company and local legislation but generally includes the assessment of design and construction; operation and maintenance; risk and safety management; regulatory compliance; closure and rehabilitation plan; among others. The ITRB's function helps increase the transparency and credibility of dam management, and increase satisfaction of the expectations of regulators, investors and local communities. No critical items were found in the ITRB assessment of our tailings management process in Vazante. The main recommendations observed were on tailings governance. We plan to continue implementing the standards delineated by GISTM at other units in 2025.

In 2022, all plans for the units in Brazil were reviewed and filed with their respective government's environmental agencies, and as of the date of this annual report, approval is pending from the respective environmental agencies. In 2023, we began conducting engineering studies to evaluate the stability and confirm the construction method of old inactive industrial waste containment structures. These structures, since they became inactive more than 20 years ago have been subject to decommissioning as monitored by the environmental agency of the State of Minas Gerais as part of the environmental licensing process for the unit. None of these structures contain mining tailings, water or liquid waste. In 2024, we presented the progress of the studies to the respective state environmental foundation, and we plan to resume discussions in the first half of 2025 to present the results of the studies carried out and define next steps to classify these structures. For more information about our SCP committee and ESG initiatives, see Information on the Company—Environmental, Social and Governance (ESG) and corporate initiatives—Sustainability Committee and Reporting."

We use four disposal options for tailings. Our preferred option is to convert part or all of the tailings material into a commercially viable product. When the conversion method is not available, we prefer to use the backfill method for our underground mines. This technique involves removing moisture from tailings, creating a mixture with cement and filling open spaces in the mines with this combination. We believe this method reduces safety risks related to tailings disposal given that it provides greater geotechnical stability and does not involve the building of a dam or dry stacking structure.

If neither the conversion nor the backfill method is available, we prefer to use the dry stacking method, which involves removing moisture from tailings and stacking them in layers to form an artificial mount covered with soil and vegetation, causing it to integrate into the local landscape. We use the dry stacking and backfill methods at our Cerro Lindo mine in Peru since the startup of our mine. In 2019, we started operating a dry stacking facility, which substituted the tailings dam in Vazante. As a result of this new structure in the Vazante unit, 70.5% of all our tailings disposal is done either through backfill or dry staking, reducing our exposure to dams. In 2023, we began developing the backfill and dry stacking methods at our Aripuanã unit, which began the ramp-up in July 2022. In February 2023, we started an industrial-scale testing for dry stacking disposal at the Três Marias unit. In 2024, the initiative achieved excellent results successfully filtering the residue and we continued to develop the project during the initial stages of the industrial-scale test, filtering an average of 92.4% of the operation's material throughout the year. Due to these advancements, we began the licensing process of the dry stacking disposal at Três Marias.

When neither of these three methods is possible, we use tailings dams. The dam acts as a solid barrier engineered to prevent the tailings material from escaping to the environment around the mine. We use this method in Peru at our Cerro Pasco Complex (El Porvenir and Atacocha mines), and at our Cajamarquilla smelter, and in Brazil at our Vazante mine, and Juiz de Fora and Três Marias smelters. We also use a combination of the backfill method and tailings dams at our El Porvenir and Atacocha mines in Peru. At the Aripuanã mine, we have built a water dam to supply water to our plant. This dam is engineered with borrowed material and uses the technical control of compaction of the soil.

We currently raise our tailings dams using the following two methods: (i) the downstream method, where the building material is disposed downstream of the crest of the dam body; and (ii) the center-line method, where the building material is disposed partially downstream and partially upstream of the crest of the dam body, while maintaining the same centerline of the crest. Historically, we have also used the upstream method – where the building material is disposed upstream of the crest of the dam body – in certain instances – however, none of these tailings' dams are now active.

In addition, we also use effluent dams, which are dams used to treat water that contains tailings particles or other solid particles. The effluent dams separate the tailings particles or other solid particles from the water by retaining the particles and releasing the clean water downstream.

We currently have 40 disposal facilities, 22 of which are active and 18 inactive (including tailings dams, dry stacking facilities, effluent dams and water storage dams), 18 located in Peru and 22 located in Brazil. We continue to implement responsible tailings management strategies, including backfill methods and dry stacking, to minimize our environmental impact. Additionally, decommissioning and de-characterization efforts are ongoing for non-operational dams, in line with our commitment to sustainable mining practices. The following is an overview of the dams we have in place at our principal mining and smelting facilities:

Peru

- At Cerro Lindo, we have no tailings dams, and tailings are disposed of using a combination of the backfill and dry stacking methods; there are two dry stacking facilities and two effluent dams.
- At the Cerro Pasco Complex (El Porvenir and Atacocha), tailings are disposed of using a combination of the backfill method and tailings dams; there are two tailings dams in active use and four non-operational tailings dams, which are in the process of being decommissioned.
- At Cajamarquilla, there are three tailings dams in active use and four non-operational tailings dams, which are in the process of being decommissioned.
- At the Chapi mine property, which was sold on December 23, 2024, there were five non-operational tailings dams, which have already been excluded from the total number of disposal facilities.
- At the Sinaycocha property, which is part of our Atacocha mine property, there is one non-operational tailings dam.

Brazil

- At Morro Agudo, which was sold on July 1, 2024, most tailings were converted for sale, however, there were two products dams and a separate tailings dam, which have already been excluded from the total number of disposal facilities.
- At Vazante, tailings are disposed of using a combination of tailings dams, backfill and dry stacking methods; there is one dry stacking facility, one tailings dam and two effluent dams in active use.
- At Aripuanã, we have no tailings dams, and tailings are disposed of using a combination of the backfill and dry stacking methods; there is one dry stacking facility and one water storage dam in active use.
- At Juiz de Fora, there is one tailings dam in active use, three effluent dams in active use and six non-operational tailings dams, one of which is in decommissioning process, while the other five were decommissioned in 2002 and are currently in the process of de-characterization.
- At Três Marias, there are two tailings dams and one dry stacking facility in active use and three non-operational tailings dams, which are in the process of being decommissioned.

SMELTING OPERATIONS

The table below provides an overview of our smelting facilities:

Smelting Unit	Location	Smelting Process	Principal Refined Zinc Products	Plant Capacity	Metallic Zinc Production in 2024	Zinc Oxide Production in 2024	Other Products
				(in tonnes of refined zinc per year)	(in tonnes of zinc metal available for sale, includes alloys)	(in tonnes of zinc oxide)	
Cajamarquilla	Peru	RLE	Metallic zinc (SHG, CGG jumbos and alloys)	344,436	334,078	0	Sulfuric acid, silver concentrate, copper cement and cadmium sticks
Três Marias	Brazil	RLE	Metallic zinc (SHG, CGG jumbos, alloys and Zamac) and zinc oxide	192,199	144,096	34,569	Cadmium and cobalt cement
Juiz de Fora	Brazil	Waelz Furnace and RLE	Metallic zinc (SHG, alloys and Zamac)	96,923	81,989[1]	0	Sulfuric acid, sulfur dioxide, silver concentrate, copper sulfate and zinc ash
Total				**633,558**	**560,163**	**34,569**	

(1) Considering 783 tonnes of zinc cathodes transferred from Três Marias and 8,992 tonnes of zinc High Grade acquired from third-parties.

Notes:

RLE stands for Roast-Leach-Electrowinning.
Alloys are zinc-based products with the addition of up to 1.0% of a specified metal, which are primarily used in the galvanizing market.
Special alloys are zinc-based products with addition of specified metals, which are primarily used in galvanizing market.
Zamac is a zinc-based product with the addition of specified metals, which are primarily used in the die casting market.

Smelter sales

We produce various types of refined zinc products. In 2024, we sold a total of 556.8 thousand tonnes of our metallic zinc line of products (including SHG, CGG jumbos, alloys and Zamac). In addition, we commercialized 34.5 thousand tonnes of zinc oxide at 80% standard zinc content in 2024, totaling 591.3 thousand tonnes of zinc metal products sold.

In March 2021, a calcine supplier in Peru shut down its facility, reducing our calcine availability and, consequently, impacting our production and sales going forward. Since 2022, we have been able to partially offset the reduction in calcine availability through the development and consumption of new sources of secondary raw materials, such as third-party waelz oxide. However, in 2024 we restored our use of calcine from a supplier in Peru for all of our smelting operations, reducing part of our secondary raw material consumption.

Cajamarquilla

The Cajamarquilla smelter is located in the district of Lurigancho/Chosica in Lima, Peru, and is accessible by road.

The Cajamarquilla smelter is currently the largest zinc smelter in Latin America (excluding Mexico) and the only zinc smelter in Latin America outside Mexico and Brazil, according to Wood Mackenzie. It uses the RLE process to produce metallic zinc. With an annual production capacity of 344.4 thousand tonnes of metallic zinc, the Cajamarquilla smelter produced 334.1 thousand tonnes of zinc metal available for sale in 2024. In recent years, Cajamarquilla developed operational efficiencies, including debottlenecking projects, which increased the production of calcine from concentrates obtained from Nexa Peru, and the use of calcine and waelz oxide processed by third parties. See “Risk factors—Operational risks—Inadequate supply of zinc secondary feed materials and zinc calcine could affect the results of our smelters.”

The Cajamarquilla smelter produces zinc primarily from zinc contained in concentrates and, to a lesser extent, recycled zinc secondary feeds (also referred to as pre-treated concentrate). In 2024, the Cajamarquilla smelter consumed 356.3 thousand tonnes of zinc contained in concentrates and secondary raw material, which consumed 31.1% of zinc contained in concentrates from our mines, 66.8% of zinc contained in concentrates from third parties and 2.1% from secondary raw material.

In 2024, the Cajamarquilla smelter sold approximately 327.0 thousand tonnes of metallic zinc, of which 35.1% of the volume was sold to Latin America (including Mexico), 16.7% to Europe, 16.4% to the United States, 11.9% to international traders and 19.9% to Asia. The Cajamarquilla smelter also produces sulfuric acid, silver concentrate, copper cement, manganese dioxide, oxides (ashes) and cadmium sticks. These products are sold primarily to international traders and local customers.

The following table presents the historical concentrates processed and zinc recovery rate in Cajamarquilla for the periods indicated.

	For the Year Ended December 31,		
	2024	2023	2022
Inputs (in tonnes)			
Zinc Contained in Concentrate from Our Mines	110,983	92,827	104,150
Zinc Contained in Concentrate from Third Parties	237,953	233,425	239,587
Secondary Raw Material	7,370	14,745	17,081
Total Inputs	**356,306**	**340,996**	**360,819**
Zinc Recovery (%)	94.4	93.8	94.7

Três Marias

The Três Marias smelter is located in the municipality of Três Marias in the state of Minas Gerais, Brazil, 253 km from the Vazante mine and is accessible by road.

The Três Marias smelter was built to treat the zinc silicate concentrates from the Vazante mine (willemite and calamine) and sulfide concentrates from Aripuanã mine, from Nexa Peru and from third-party concentrates. Currently, this smelter is integrated with the operation of the Vazante mine and it uses the RLE process to produce metallic zinc and zinc oxide. The annual production capacity of our Três Marias smelter is 192.2 thousand tonnes of refined metal per year. Production in 2024 totaled 178.7 thousand tonnes of zinc metal and oxide available for sale.

The Três Marias smelter produces zinc primarily from zinc contained in concentrates and, to a lesser extent, recycled zinc secondary feeds. In 2024, the Três Marias smelter consumed 191.9 thousand tonnes of zinc contained in concentrates and secondary raw material, which consumed 88.5% of zinc contained in concentrates from our mines, 11.3% of zinc contained in concentrates from third parties and 0.2% from secondary raw material.

In 2024, Três Marias sold approximately 146.8 thousand tonnes of metallic zinc and 34.5 thousand tonnes of zinc oxide, of which 63.5% of the volume was sold to Latin America (including Mexico), 14.7% to international traders, 17.1% to Africa, 1.2% to Asia and 3.5% to Europe. The Três Marias smelter also produces copper/cobalt cement, Oxides (ashes) and cadmium briquettes. These products are sold to local customers.

The Três Marias smelter contains a zinc oxide production plant intended for the chemical, pneumatic, ceramic, animal feed and fertilizer industries. In 2024, the production of zinc oxide was approximately 34.6 thousand tonnes. In zinc content, approximately 73.8% of the raw material was electrolytic zinc that originated from the melting stage. In addition, we purchased 26.2% of raw material from third parties, in the form of dross and skims, to produce zinc oxide as well as the generation of by-products.

In 2021, the request for environmental licensing for a new expansion of the Três Marias tailings dam was submitted to the environmental agency of the state of Minas Gerais. In 2023, we advanced with the waste dry disposal system on an industrial scale, which consists of filtering the waste pulp for subsequent disposal through the dry stacking process, as waste disposal in this unit was going directly to its tailings deposit. The initiative achieved excellent results, filtering an average of 74% of the operation's material throughout the year, and in 2024, filtration reached 92.4%. Due to this advancement, we began the licensing process for government approval of the dry stacking disposal facility. For more information, see "Mining Operations—Tailings Disposals—Regulatory framework." See also "Risk factors—Operational risks—The failure of a tailings dam could negatively impact our business, reputation and results of operations, and the implementation of associated regulations and decommissioning processes may be expensive."

The following table presents the historical concentrates processed and zinc recovery rate in Três Marias for the periods indicated.

	For the Year Ended December 31,		
	2024	**2023**	**2022**
Inputs (in tonnes)			
Zinc Contained in Concentrate from Our Mines	169,901	167,726	146,006
Zinc Contained in Concentrate from Third Parties	21,680	22,430	38,319
Secondary Raw Material	325	1,976	3,320
Total Inputs	**191,906**	**192,132**	**187,645**
Zinc Recovery (%)	89.2	90.1	91.6

Juiz de Fora

The Juiz de Fora smelter is located in the municipality of Juiz de Fora in the state of Minas Gerais, Brazil, and is accessible by road.

The Juiz de Fora smelter produces zinc from sulfide concentrates and secondary sources such as EAF dust, batteries, and brass oxide, and uses the RLE process to produce metallic zinc. The annual production capacity of our Juiz de Fora smelter is 96.9 thousand tonnes of metallic zinc per year. In 2024, Juiz de Fora produced 82.0 thousand tonnes of zinc metal available for sale. In recent years, Juiz de Fora used calcine processed by third parties in its production process.

The Juiz de Fora smelter produces zinc primarily from zinc contained in concentrates and, to a lesser extent, recycled zinc secondary feeds. In 2024, the Juiz de Fora smelter consumed 82.5 thousand tonnes of zinc contained in concentrates and secondary raw material, which consumed 56.2% of zinc contained in concentrates from our mines, 28.4% of zinc contained in concentrates from third parties and 15.4% from secondary raw material.

In 2024, the Juiz de Fora smelter sold approximately 83.0 thousand tonnes of metallic zinc, of which 79.9% of the volume was sold to Latin America (including Mexico) and 20.1% to international traders outside of Latin America. This Juiz de Fora smelter also produces sulfuric acid, sulfur dioxide, silver concentrate, copper sulfate and zinc ash. These products are sold primarily to international traders and local customers.

The following table presents the historical concentrates processed and zinc recovery rate in Juiz de Fora for the periods indicated.

In December 2024, a fire occurred in certain electro-filters at Juiz de Fora. The incident was promptly contained, leading to an emergency shutdown of the roasting plant during the last week of the month. Repair measures are currently underway, and we expect to gradually restore the electro-filters during the first half of 2025. The incident was not material to our operations as of December 31, 2024, but we anticipate impacts on production in 2025.

	For the Year Ended December 31,		
	2024	**2023**	**2022**
Inputs (in tonnes)			
Zinc Contained in Concentrate from Our Mines	46,341	36,460	27,874
Zinc Contained in Concentrate from Third Parties	23,428	36,515	43,419
Secondary Raw Material	12,726	14,419	17,554
Total Inputs	**82,496**	**87,394**	**88,847**
Zinc Recovery (%)	93.9	93.6	93.1

OTHER OPERATIONS

Transportation and shipping

Concentrates in our mines

Our Cerro Lindo operation transports 100.0% of its concentrates by road. The concentrates are trucked in a dedicated fleet through the Panamericana Sur road to the port of Callao, or to the Cajamarquilla smelter. This transportation is covered by long-term contracts entered with two trucking companies.

Our Atacocha and El Porvenir operations use both road and rail transportation. The concentrates are trucked through the Carretera Central Road to the port of Callao, or to the Cajamarquilla smelter. We also use railway transportation to secure logistic availability and maintain high environmental standards. Our use of railway transportation is covered by a long-term contract.

The zinc concentrate produced in the Cerro Lindo, Atacocha and El Porvenir mines supply both our Peruvian and Brazilian smelters, as well as third-party customers, while the lead and copper concentrates produced by these mines are transported to third-party customers from the port of Callao. Our smelters use zinc concentrate supplied from our mines and from third-party suppliers to meet the blending needs of each smelter.

The Peruvian zinc concentrate supplied to the Brazilian smelters is loaded in bulk and sent to the Port of Rio de Janeiro, where it is cleared through customs and then loaded into railcars to the Juiz de Fora smelter or into trucks and railcars to the Três Marias smelter. The ocean freight for this Peruvian zinc is covered by a freight contract.

All the zinc concentrates produced at our Vazante mine is transported by road to the Três Marias smelter using three trucking companies. These mines also produce lead and lead/silver concentrates, which are loaded into containers at the mine and are transported using trucks and trains to the Sepetiba Tecon Terminal in Itaguaí, Rio de Janeiro, Brazil. The lead and lead/silver concentrates are then exported in accordance with our annual contracts with container shipping lines.

All the zinc concentrates produced at our Aripuanã mine are transported by road to the Três Marias and Juiz de Fora smelters. The mine also produces lead and copper concentrates, which are either loaded into containers at the mine or transported by road to the Rondonópolis warehouse to be loaded into containers and are then transported using trucks and trains to the Terminal in Santos, São Paulo, Brazil. A small portion of zinc, and all lead and copper concentrates are then shipped to foreign customers.

Smelters

The metallic zinc produced in the Cajamarquilla smelter is transported by train or truck to the terminals. The material intended for the Peruvian domestic market is distributed by truck from these terminals, while exports to foreign markets are loaded into containers and transported by truck from these terminals to the port of Callao.

The metallic zinc produced in the Juiz de Fora and Três Marias smelters is transported by truck for either local customers or exports. In the case of exports, the material is transported to terminals near the ports of Rio de Janeiro or Itaguaí, both in the state of Rio de Janeiro, or the port of Santos, in the state of São Paulo. The material is then loaded into containers at the terminal and transported to the ports by truck, where it is shipped to customers abroad.

The metallic zinc and zinc oxide production process in our smelters also produces by-products. The most relevant by-products are sulfuric acid and silver concentrate. Sulfuric acid produced in the Cajamarquilla smelter is loaded into dedicated FCCA tank railcars and transported to be stored. The sulfuric acid is then loaded in bulk into chemical ship-tanks destined to our customers and discharged at the Chilean ports of Mejillones and Barquito. The silver concentrate produced in the Cajamarquilla and Juiz de Fora smelters is loaded into containers and are dispatched to the port of Callao in Peru or to the port of Itaguaí.

We ship all our refined zinc and silver concentrate exports in containers. Transportation of this material is covered by annual agreements with the liner shipping providers, which are responsible for 90.0% of these shipments.

Sales and marketing

We sell most of our products through supply contracts with terms between one and three years. Only a small portion of our products is sold on the spot market. The agreements with our customers include customary international commercial terms, such as CIF, FOB and other delivery terms based on Incoterms 2010/2020. Our ability to deliver significant volumes across several regions worldwide makes us a significant supplier to a client base of end users and global traders. As a result, we can obtain competitive commercial terms for our products in the long-term. In 2024, our top 10 metallic zinc customers represented approximately 57.7% of the total sales volume for such products, with our top 10 zinc oxide customers representing 58.5% of the total sales volume for that product, and our top five concentrate customers represented approximately 84.2% of the total sales volume for such products, in each case excluding intercompany sales.

Concentrates

In 2024, 100% of our zinc concentrate production was directed to our smelting operations in Peru and Brazil, however, 0.7% of the production was resold to a third-party customer due to the result of a swap contract negotiation. Sales prices are established mainly by reference to prices quoted on the LME less a discount based on either the treatment charge or smelter charge. The LME price quotes are based on prevailing LME average prices for the period set forth in our sale agreements and generally refer to either the month following the shipment or the period near the execution date of the relevant agreement.

We also purchase zinc contained in concentrate from third-party suppliers to meet our raw material requirements. In 2024, 51.9% of the total zinc raw material consumption in our smelters was produced by our mines and 48.1% was purchased from third parties or obtained from secondary raw materials (excluding zinc oxide).

Refined Metals

Our metallic zinc and zinc oxide are sold worldwide through our commercial offices located in:

- São Paulo, Brazil;
- Lima, Peru;
- Houston, United States; and
- Luxembourg, Grand Duchy of Luxembourg.

We hold a leadership position in our home market, Latin America (excluding Mexico), with an estimated market share of 75.8% in 2024, according to our sales volume, import databases and demand forecasts sourced from specialized consultancy groups and customs websites. In other regions, we hold a strategic position, with estimated market share of 24.0% in Africa, 4.3% in North America, 3.2% in Europe and 0.7% in Asia, according to our sales volumes, import databases and demand forecasts sourced from specialized consultancy groups and customs websites.

In 2024, 72.6% of our total sales of refined metals were to customers in the continuous galvanizing, general galvanizing, die casting, transformers and alloy segments and 27.4% of our total sales were to international traders. Our products are sold to end users in the transport, construction, infrastructure, consumer goods and industrial machinery industries. Of our volume of metallic zinc and zinc oxide sales in 2024, 50.0% were to Latin America (including Mexico), 10.3% to Europe, 9.1% to the United States, 5.3% to Africa and 11.4% to Asia, with the remaining 13.9% to international traders. Sales prices are mainly established by reference to prices quoted on the LME plus a negotiable premium. Pricing is based on prevailing LME average prices for a period set forth in our sale agreements, which generally refer to the month or month prior to shipment.

By-products

We sell a wide variety of chemical and metallurgic by-products generated during the production processes in our smelters and mines to a broad customer base. Our sales include more than 29 different by-products, most of which are sold based on the characteristics of each market or region.

Power and energy supply

Peru

We contracted for 97.3% (1,908.8 GWh) of energy for our operations in our Peruvian operating units from the SEIN and consumed 100% (1,908.8 GWh) of this energy. The other 2.7% (52.0 GWh) of the energy for our Peruvian operating units was obtained from our own hydroelectric power plants and the Cajamarquilla cogeneration power plant. We own three hydroelectric power plants, two at Atacocha and one at El Porvenir, with a total installed gross rated capacity of 9,726 kilowatts, or kW.

We currently have contracts with Electroperú S.A., a well-known Peruvian state-owned company, which cover 100% (293.3 GWh), 100% (131.3 GWh) and 44.3% (30.3 GWh) of the energy requirements for our Cerro Lindo, El Porvenir and Atacocha units, respectively. In Cajamarquilla, Electroperú S.A. is responsible for 95.8% (1,406.9 GWh) of the energy supply. In 2024, we consumed 100% of the energy acquired through these contracts.

We currently also have a spot contract with Engie S.A. for the supply of energy to the Cajamarquilla unit. In 2024, 3.2% (47.0 GWh) of the energy requirements for our operations in Cajamarquilla was contracted from Engie and 100% of this energy was consumed.

In March 2025, Nexa entered into a 10-year supply agreement with Kallpa S.A., a Peruvian energy company, for the supply of 278.0 MW of power from 2027 to 2036, which will replace our contracts with Electroperú and Engie, which expire in December 2026. Our contract with Kallpa does not include a guarantee of hydroelectric origin (which our contract with Electroperú includes), therefore we will use the International REC Standard certificate system to offset greenhouse gas emissions.

The following table sets forth the energy sources and energy consumption with respect to our Peruvian operating units in 2024.

Operating Unit	Energy Source	Total Energy Consumed in 2024 (GWh)	Percentage of Total Energy Usage in 2024
Third-Party			
Cerro Lindo	Third-Party (Electroperú S.A.)	293.3	15.4%
El Porvenir	Third-Party (Electroperú S.A.)	131.3	6.9%
Atacocha	Third-Party (Electroperú S.A.)	30.3	1.6%
Cajamarquilla	Third-Party (Engie S.A.)	47.0	2.5%
Cajamarquilla	Third-Party (Electroperú S.A.)	1,406.9	73.7%
Total Energy Usage		**1,908.8**	**100%**
Own Power Plant			
El Porvenir	Own Power Plant (Candelaria)	0.0	0.0%
Atacocha	Own Power Plant (Chaprin and Marcopampa)	38.1	73.1%
Cogeneration CJM	Two steam turbines with HRSG from tostación	14.0	26.9%
Total Energy Usage		**52.1**	**100%**

Hydroelectric plants

Candelaria

The El Porvenir unit has one hydroelectric plant, the Candelaria Hydroelectric Power Plant, which is located along the Lloclla River. The plant contains three separate hydroelectric turbines, two of which have been operational since 1957 and the third since 1998, and which together have an installed rated capacity of 4.8 MW.

Chaprin and Marcopampa

The Atacocha unit has two hydroelectric plants. The Chaprin Hydroelectric Power Plant is located along the Lagia Ravine near the Huallaga River. The plant has been operating since 1957, and its installed rated capacity is 5.9 MW. The Marcopampa Hydroelectric Power Plant has been operating since 1953, and was overhauled in 1984, increasing its installed rated capacity of 1.2 MW. Since the beginning of 2020, Marcopampa has been shut off indefinitely. During 2024, Atacocha consumed 38.1 GWh from these plants, which represented approximately 55.7% of the energy usage of the mine.

Brazil

With respect to our Brazilian operations, as of December 31, 2024, energy supply comes from various contracts, and our subsidiary Pollarix S.A (“Pollarix”).

The five hydroelectric plants in which our subsidiary Pollarix has directly or indirectly the following interests: a 22.4% equity participation in Enercan (Campos Novos hydroelectric power plant), a 100.0% ownership of the hydroelectric power plant Picada located in Minas Gerais, a 12.6% equity participation in the Amador Aguiar I, a 12.6% equity participation in the Amador Aguiar II and a 23.9% equity participation in the Igarapava. These plants have hydroelectric power facilities in the states of Minas Gerais, Santa Catarina and São Paulo. The hydroelectric power plants of Pollarix provides energy to the four operating units (Vazante, Três Marias, Juiz de Fora and Aripuanã) and provided energy to Morro Agudo prior to its sale.

The only activity of Pollarix is to own our energy assets and sell energy to our Brazilian operating subsidiaries at market prices. We own all the common shares of Pollarix, which represents 33.3% of its total share capital. The remaining shares are preferred shares with limited voting rights, which are owned by Auren Energia S.A (“Auren”). Under the terms of the preferred shares, Auren is entitled to dividends per share equal to 1.93 times the dividends per share payable on the common shares. See “Operating and financial review and prospects—Overview—Key factors affecting our business and results of operations—Operating costs and expenses—Energy costs.”

In 2023, Nexa finalized a contract rearrangement with Pollarix, in which the energy delivery from the hydroelectric plants (Picada, Igarapava and Amador Aguiar) was centralized through Pollarix. Pollarix is responsible for transferring the energy to Nexa, guaranteeing the right to self-production. In 2024, Pollarix provided 710.6 GWh of energy, which represented 43.8% of Nexa’s total energy purchased.

Besides the hydroelectric plants centralized through Pollarix, Nexa has a contract of energy supply with Enercan. In 2024, Enercan provided 639.6 GWh of energy, which represented 39.4% of Nexa’s total energy purchased.

We also have a contract with Auren, which provides energy from several energy generation sites to all Nexa operations in Brazil. In 2024, Auren provided a total supply of 31.9 GWh of energy, representing 2.0% of Nexa’s total energy purchased.

In 2020, we began a 15-year energy supply agreement with Furnas Centrais Elétricas S.A. (“Furnas”), a Brazilian energy company, controlled by Eletrobras, to help address the increased energy demand in our operations. Nexa Brazil currently consumes nearly all the energy supplied by Pollarix, Enercan and Auren in its existing operations. Furnas provides energy to two operating units (Três Marias and Juiz de Fora). In 2024, Furnas provided a total supply of 209.0 GWh of energy, representing 12.9% of Nexa’s total energy purchased. However, we terminated our supply contract with Furnas in February 2025.

In May 2024, we entered into a 10-year supply agreement with Eneva, a Brazilian energy company, for the supply of 25.0 MWavg of energy from 2025 to 2034.

The following table sets forth our energy sources and consumption with respect to our Brazilian operations in 2024.

Operating Unit	Energy Source	Total Energy Consumed in 2024 (GWh)	Percentage of Total Energy Usage in 2024
Third-Party and Own Power Plants			
Juiz de Fora	Pollarix S.A, Furnas S.A., Enercan, Auren and Market	390.4	25.2%
Três Marias		735.0	47.5%
Vazante		292.1	18.9%
Morro Agudo		25.9	1.7%
Aripuanã		104.3	6.7%
Total Energy Usage		1,547.7	**100%**

Hydroelectric plants

Campos Novos

Campos Novos is a hydroelectric plant located along the Canoas River, in the state of Santa Catarina. The plant has an installed capacity of 880 MW and has been authorized by the Brazilian Energy Regulatory Agency (*Agência Nacional de Energia Elétrica* or ANEEL), to produce 382.2 MWavg. During 2024, Aripuanã, Vazante, Morro Agudo, Três Marias and Juiz de Fora units acquired 639.6 GWh from Campos Novos, which represented approximately 39.4% of our total energy purchased.

Picada

Picada is a hydroelectric plant located along the Peixe River in the state of Minas Gerais. The plant has an installed capacity of 50 MW and has been authorized by ANEEL to produce 29.6 MWavg. During 2024, the Vazante unit acquired 222.2 GWh, which represented 13.7% of our total energy purchased.

Igarapava

Igarapava is a hydroelectric plant located along the Grande River in the state of Sao Paulo. The plant has an installed capacity of 210 MW and has been authorized by ANEEL to produce 127.5 MWavg. During 2024, Aripuanã, Vazante, Morro Agudo, Três Marias and Juiz de Fora units acquired 229.7 GWh from Igarapava, which represented approximately 14.1% of our total energy purchased.

Amador Aguiar I

Amador Aguiar is a hydroelectric plant located along the Araguari River in the state of Minas Gerais. The plant has an installed capacity of 240 MW and has been authorized by ANEEL to produce 146.7 MWavg. During 2024, Aripuanã, Vazante, Morro Agudo, Três Marias and Juiz de Fora units acquired 139.6 GWh from Amador Aguiar I, which represented 8.6% of our total energy purchased.

Amador Aguiar II

Amador Aguiar is a hydroelectric plant located along the Araguari River in the state of Minas Gerais. The plant has an installed capacity of 210 MW and has been authorized by ANEEL to produce 125.2 MWavg. During 2024, Aripuanã, Vazante, Morro Agudo, Três Marias and Juiz de Fora units acquired 119.1 GWh from Amador Aguiar II, which represented 7.3% of our total energy purchased.

Nexa Energy

In June 2024, we acquired an energy trading company, currently named Nexa Energy, to maximize the benefits of our consumer units in the free energy market. The trading company acts as an intermediary in the negotiation of supply contracts, customizing them according to the company's specific needs, in addition to facilitating access to a variety of suppliers.

In certain situations, Nexa may have a volume of energy greater than its consumption, and Nexa Energy plays a crucial role in managing this surplus, enabling its sale in the free energy market. This operation can generate financial returns, depending on market prices.

The sale of surplus energy also prevents excess energy from being liquidated at the Electric Energy Commerce Chamber (*Câmara de Comercialização de Energia Elétrica* or "CCEE"). Although the value of the surplus is calculated based on market prices, the payment of these amounts is subject to the risk of non-payment by CCEE. Non-payment occurs when participants do not meet their financial obligations in the monthly settlements. In this case, the unpaid amounts are divided among all creditors, resulting in a lower credit than the amount originally due.

Another relevant benefit of having an energy trading company is tax optimization. By including surplus energy in Nexa Energy's portfolio for sale, Nexa prevents its consumer units from being taxed on the amounts of energy that would be delivered but not consumed.

From July to December 2024, the amount of surplus energy traded by Nexa Energy was 14.8 MWavg.

MINERAL RESERVES AND RESOURCES

Disclosure of Mineral Reserves and Resources

Registrants engaged in mining operations must comply with Regulation S-K Subpart 1300 ("S-K 1300" or the "SEC Mining Modernization Rules"), which came into force on January 1, 2021. S-K 1300 governs the mineral property disclosure requirements for mining registrants.

For the meanings of certain technical terms used in this prospectus, see “Additional Information—Glossary.”

As a reporting issuer in Canada, we are also subject to Canadian National Instrument 43-101—*Standards of Disclosure for Mineral Projects* (“NI 43-101”), which is an instrument administered by the provincial and territorial securities regulatory authorities that governs how issuers in Canada disclose scientific and technical information about their mineral projects to the public. NI 43-101 imposes certain requirements in respect of such disclosure, including the requirement to have prescribed information prepared by, or under the supervision of, a Qualified Person and the filing of NI 43-101 technical reports in the prescribed circumstances. Any reference to a NI 43-101 report is for informational purposes only, and such reports are not incorporated herein by reference.

Descriptions in this report of our mineral deposits prepared in accordance with S-K 1300, as well as similar information provided by other issuers in accordance with S-K 1300, may not be comparable to similar information prepared in accordance with NI 43-101 that is presented elsewhere outside of this report.

The Qualified Persons that have reviewed and approved the scientific and technical information contained in this annual report are identified in the footnotes to the tables summarizing the Mineral Reserves and Resources estimates below, see “Information on the Company—Mining operations” below. For the meanings of certain technical terms used in this report, see “Additional information—Glossary.”

Presentation of information concerning Mineral Reserves

The estimates of proven and probable reserves at our mines and projects and the estimates of LOM included in this annual report have been prepared by the Qualified Persons referred to herein, and in accordance with the technical definitions established by the SEC Under S-K 1300:

- Proven Mineral Reserves are the economically mineable part of a Measured mineral resource and can only result from conversion of a measured mineral resource.
- Probable Mineral Reserves are the economically mineable part of an indicated and, in some cases, a measured mineral resource.
- Indicated Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated based on adequate geological evidence and sampling. The level of geological certainty associated with an Indicated Mineral Resource is sufficient to allow a Qualified Person to apply modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Because an Indicated Mineral Resource has a lower level of confidence than the level of confidence of a measured mineral resource, an indicated mineral resource may only be converted to a probable mineral reserve.
- Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated based on limited geological evidence and sampling. The level of geological uncertainty associated with an Inferred Mineral Resource is too high to apply relevant technical and economic factors likely to influence the prospects of economic extraction in a manner useful for evaluation of economic viability. Because an Inferred Mineral Resource has the lowest level of geological confidence of all mineral resources, which prevents the application of the modifying factors in a manner useful for evaluation of economic viability, an Inferred Mineral Resource may not be considered when assessing the economic viability of a mining project and may not be converted to a mineral reserve.
- Measured Mineral Resource is that part of a mineral resource for which quantity and grade or quality are estimated based on conclusive geological evidence and sampling. The level of geological certainty associated with a Measured Mineral Resource is sufficient to allow a Qualified Person to apply modifying factors, as defined in S-K 1300, in sufficient detail to support detailed mine planning and final evaluation of the economic viability of the deposit. Because a Measured Mineral Resource has a higher level of confidence than the level of confidence of either an Indicated Mineral Resource or an Inferred Mineral Resource, a Measured Mineral Resource may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve.

We periodically update our reserves and resources estimates when we have new geological data, economic assumptions or when mining plans become available. During 2024, we performed an analysis of our reserves and resources estimates for certain operations, resulting in updated estimates as of December 31, 2024. Reserves and resources estimates for each operation assume that we either have or expect to obtain all the necessary rights and permits to mine, extract and process mineral reserves or resources at each mine. Where we own less than 100% of the operation, reserves and resources estimates have been adjusted to reflect our ownership interest. Certain figures in the tables, discussions and notes have been rounded. For a description of risks relating to our estimates of Mineral Reserves and Resources, see “Risk factors—Risks related to our Mineral Reserves and Resources.”

Mineral Reserves

The following table shows our estimates of Attributable Mineral Reserves for our material mining properties as of December 31, 2024, prepared in accordance with Subpart 1300 of Regulation S-K.

	Ownership Interest (%)	Class	Tonnage [1]	Grade					Contained Metal				
				Zinc	Copper	Silver	Lead	Gold	Zinc	Copper	Silver	Lead	Gold
			(Mt)	(%)	(%)	(g/t)	(%)	(g/t)	(kt)	(kt)	(koz)	(kt)	(koz)
Cerro Lindo [3]	83.55	Proven	20.79	1.56	0.57	19.7	0.19	-	323.6	118.1	13,183	38.9	-
		Probable	11.85	1.07	0.43	24.2	0.22	-	127.2	50.5	9,238	26.4	-
		Subtotal	**32.64**	**1.38**	**0.52**	**21.4**	**0.20**	**-**	**450.8**	**168.6**	**22,421**	**65.2**	**-**
Vazante [4]	100	Proven	5.45	8.74	-	14.3	0.26	-	476.7	-	2,511	14.0	-
		Probable	6.32	9.06	-	10.3	0.24	-	572.1	-	2,095	15.2	-
		Subtotal	**11.77**	**8.91**	**-**	**12.2**	**0.25**	**-**	**1,048.8**	**-**	**4,606**	**29.2**	**-**
Vazante Aroeira Tailings [5]	100	Proven	-	-	-	-	-	-	-	-	-	-	-
		Probable	1.98	4.14	-	7.5	0.25	-	82.2	-	480	4.9	-
		Subtotal	**1.98**	**4.14**	**-**	**7.5**	**0.25**	**-**	**82.2**	**-**	**480**	**4.9**	**-**
El Porvenir [6]	83.55	Proven	3.42	4.11	0.25	76.2	1.29	-	140.5	8.5	8,384	44.2	-
		Probable	9.30	4.16	0.23	70.9	1.14	-	387.2	21.8	21,211	106.2	-
		Subtotal	**12.72**	**4.15**	**0.24**	**72.3**	**1.18**	**-**	**527.7**	**30.3**	**29,595**	**150.4**	**-**
Atacocha (Underground) [7]	81.78	Proven	1.46	3.94	0.33	86.2	1.56	-	57.7	4.8	4,053	22.8	-
		Probable	3.34	4.54	0.43	76.6	1.27	-	151.4	14.2	8,216	42.4	-
		Subtotal	**4.80**	**4.36**	**0.40**	**79.5**	**1.36**	**-**	**209.1**	**19.0**	**12,269**	**65.2**	**-**
Atacocha (Open pit) [8]	81.78	Proven	1.18	1.08	-	38.9	1.17	0.18	12.7	-	1,469	13.7	6.7
		Probable	1.81	0.97	-	33.3	1.15	0.22	17.6	-	1,943	20.9	13.0
		Subtotal	**2.99**	**1.01**	**-**	**35.5**	**1.16**	**0.21**	**30.3**	**-**	**3,413**	**34.7**	**19.7**
Aripuanã [9]	100	Proven	5.86	3.79	0.20	33.1	1.37	0.24	222.0	11.9	6,230	80.3	44.7
		Probable	26.82	4.69	0.11	42.6	1.81	0.19	1,258.2	29.7	36,719	485.3	163.7
		Subtotal	**32.68**	**4.53**	**0.13**	**40.9**	**1.73**	**0.20**	**1,480.2**	**41.6**	**42,949**	**565.6**	**208.3**
Total		**Proven**	**38.17**	**3.23**	**0.38**	**29.2**	**0.56**	**0.04**	**1,233.2**	**143.3**	**35,831**	**214.0**	**51.4**
		Probable	**61.43**	**4.23**	**0.19**	**40.5**	**1.14**	**0.09**	**2,595.7**	**116.2**	**79,903**	**701.3**	**176.7**
		Total	**99.59**	**3.84**	**0.26**	**36.1**	**0.92**	**0.07**	**3,829.0**	**259.5**	**115,734**	**915.3**	**228.1**

Notes:

* Numbers may not add due to rounding.

* The point of reference for Mineral Reserves in this table is mill feed materials.

* The El Porvenir, Atacocha Underground and Atacocha Open Pit mines are part of the Cerro Pasco Complex.

The following table shows our estimates of Mineral Reserves (100% ownership basis) for our material mining properties as of December 31, 2024 prepared in accordance with Subpart 1300 of Regulation S-K.

	Ownership Interest	Class	Tonnage [2]	Grade					Contained Metal				
				Zinc	Copper	Silver	Lead	Gold	Zinc	Copper	Silver	Lead	Gold
	(%)		(Mt)	(%)	(%)	(g/t)	(%)	(g/t)	(kt)	(kt)	(koz)	(kt)	(koz)
Cerro Lindo [3]	83.55	Proven	24.88	1.56	0.57	19.7	0.19	-	387.3	141.3	15,779	46.5	-
		Probable	14.19	1.07	0.43	24.2	0.22	-	152.2	60.4	11,057	31.5	-
		Subtotal	**39.07**	**1.38**	**0.52**	**21.4**	**0.20**	**-**	**539.5**	**201.8**	**26,836**	**78.1**	**-**
Vazante [4]	100	Proven	5.45	8.74	-	14.3	0.26	-	476.7	-	2,511	14.0	-
		Probable	6.32	9.06	-	10.3	0.24	-	572.1	-	2,095	15.2	-
		Subtotal	**11.77**	**8.91**	**-**	**12.2**	**0.25**	**-**	**1,048.8**	**-**	**4,606**	**29.2**	**-**
Vazante Aroeira Tailings [5]	100	Proven	-	-	-	-	-	-	-	-	-	-	-
		Probable	1.98	4.14	-	7.5	0.25	-	82.2	-	480	4.9	-
		Subtotal	**1.98**	**4.14**	**-**	**7.5**	**0.25**	**-**	**82.2**	**-**	**480**	**4.9**	**-**
El Porvenir [6]	83.55	Proven	4.10	4.11	0.25	76.2	1.29	-	168.2	10.2	10,035	52.9	-
		Probable	11.3	4.16	0.23	70.9	1.14	-	463.4	26.1	25,387	127.1	-
		Subtotal	**15.23**	**4.15**	**0.24**	**72.3**	**1.18**	**-**	**631.6**	**36.3**	**35,422**	**180.1**	**-**
Atacocha (Underground) [7]	81.78	Proven	1.79	3.94	0.33	86.2	1.56	-	70.5	5.9	4,956	27.8	-
		Probable	4.08	4.54	0.43	76.6	1.27	-	185.1	17.4	10,047	51.9	-
		Subtotal	**5.87**	**4.36**	**0.40**	**79.5**	**1.36**	**-**	**255.6**	**23.3**	**15,003**	**79.7**	**-**
Atacocha (Open pit) [8]	81.78	Proven	1.44	1.08	-	38.9	1.17	0.18	15.5	-	1,797	16.8	8.2
		Probable	2.22	0.97	-	33.3	1.15	0.22	21.5	-	2,376	25.6	15.9
		Subtotal	**3.66**	**1.01**	**-**	**35.5**	**1.16**	**0.21**	**37.0**	**-**	**4,173**	**42.4**	**24.1**
Aripuanã [9]	100	Proven	5.86	3.79	0.20	33.1	1.37	0.24	222.0	11.9	6,230	80.3	44.7
		Probable	26.82	4.69	0.11	42.6	1.81	0.19	1,258.2	29.7	36,719	485.3	163.7
		Subtotal	**32.68**	**4.53**	**0.13**	**40.9**	**1.73**	**0.20**	**1,480.2**	**41.6**	**42,949**	**565.6**	**208.3**
Total		**Proven**	**43.52**	**3.08**	**0.39**	**29.5**	**0.55**	**0.04**	**1,340.3**	**169.3**	**41,308**	**238.5**	**52.9**
		Probable	**66.74**	**4.10**	**0.20**	**41.1**	**1.11**	**0.08**	**2,734.7**	**133.6**	**88,162**	**741.5**	**179.6**
		Total	**110.26**	**3.70**	**0.27**	**36.5**	**0.89**	**0.07**	**4,074.9**	**302.9**	**129,470**	**980.0**	**232.5**

Notes:

* Numbers may not add due to rounding.
* The point of reference for Mineral Reserves in this table is mill feed materials.
* The El Porvenir, Atacocha Underground and Atacocha Open Pit mines are part of the Cerro Pasco Complex.

(1) The total tonnage and content amounts presented in this table represent Nexa's attributable ownership basis.

(2) The total amounts and content presented in this table have not been adjusted to reflect our ownership interest. The information presented in this table includes 100% of the Mineral Reserve estimates for the property. Please refer to our ownership percentage for the amounts attributable to our ownership interest in the property.

(3) The Qualified Person for the Mineral Reserves estimate is Cesar Moreno, B.Eng., MAusIMM, a Nexa employee. Subpart 1300 of Regulation S-K definitions were followed for Mineral Reserves, which also are consistent with the CIM (2014) definitions. Mineral Reserves are estimated at an NSR break-even cut-off value of US$44.94/t processed. Some incremental material with values between US$33.33/t and US$44.94/t was included. Mineral Reserves estimates are based on average long-term metal prices of zinc: US$2,864.90/t (US$1.30/lb); copper: US$9,095.61/t (US$4.13/lb); lead: US$2,097.45/t (US$0.95/lb); and silver: US$24.83/oz. Metallurgical recoveries are accounted for in NSR calculations based on historical processing data and are variable as a function of head grade. Recoveries at LOM average head grades are 87.86% for Zn, 84.47% for Cu, 65.65% for Pb, and 68.78% for Ag. A minimum mining width of 7.0 m was used. Dilution and extraction factors are applied based on stope type and location. Bulk density varies depending on mineralization domain.

(4) The Qualified Person for the Mineral Reserves estimate is Mateus Gomes Ribeiro, B.Eng., MAusIMM, a Nexa employee. Subpart 1300 of Regulation S-K definitions were followed for Mineral Reserves, which also are consistent with the CIM (2014) definitions. Mineral Reserves are estimated at a NSR cut-off value of US$70.52/t processed. Mineral Reserves estimates are based on average long-term metal prices of zinc: US$2,864.90/t (US$1.30/lb); lead: US$2,097.45/t (US$0.95/lb); and silver: US$24.83/oz. Metallurgical recoveries are accounted for in NSR calculations based on historical processing data and are variable as a function of head grade. Recoveries at LOM average head grades are 86.52% for Zn, 37.07% for Pb, and 42.0% for Ag. A minimum mining width of 2.0 m was applied.

(5) The Qualified Person for the Mineral Reserves estimate is Mateus Gomes Ribeiro, B.Eng., MAusIMM, a Nexa employee. Subpart 1300 of Regulation S-K definitions were followed for Mineral Reserves, which also are consistent with the CIM (2014) definitions. Mineral Reserves are estimated at a NSR cut-off value of US$28.42/t processed. Mineral Reserves estimates are based on average long-term metal prices of zinc: US$2,864.90/t (US$1.30/lb); lead: US$2,097.45/t (US$0.95/lb); and silver: US$24.83/oz. Metallurgical recoveries are accounted for in NSR calculations based on historical processing data and are variable as a function of head grade. Recoveries at Vazante Aroeira Tailings average head grades are 67.98% for Zn, 36.00% for Pb and 42.00% for Ag. A minimum mining unit of 10 m x 10m x 2m was applied.

(6) The Qualified Person for the Mineral Reserves estimate is Renzo Suarez, B.Eng., MAusIMM, a Nexa employee. Subpart 1300 of Regulation S-K definitions were followed for Mineral Reserves, which also are consistent with the CIM (2014) definitions. Mineral Reserves are estimated at NSR cut-off grade ranging from US$68.31/t to US$71.59/t for SLS areas and US$70.31/t to US$73.58/t for C&F areas depending on the zone. A number of incremental material (with values between US$44.44/t and US$70.31/t for SLS and values between US$46.44/t and US$68.31/t for C&F mining) was included in the estimates. Mineral Reserves estimates are based on average long-term metal prices of zinc: US$2,864.90/t (US$1.30/lb); copper: US$9,095.61/t (US$4.13/lb); lead: US$2,097.45/t (US$0.95/lb); and silver: US$24.83/oz. Metallurgical recoveries are accounted for in NSR calculations based on historical processing data and are variable as a function of head grade. Recoveries at LOM average head grade are 89.23% for Zn, 15.03% for Cu, 79.99% for Pb, and 62.92% for Ag. Minimum mining width of 5.0 m for C&F mining and 4.0 m for SLS mining were used for reserves shapes and development design and are reported inclusive of extraction losses and dilution.

(7) The Qualified Person for the Mineral Reserves estimate is Renzo Suarez, B.Eng., MAusIMM, a Nexa employee. Subpart 1300 of Regulation S-K definitions were followed for Mineral Reserves, which also are consistent with the CIM (2014) definitions. Mineral Reserves are estimated at NSR cut-off of US$73.54/t for SLS areas and US$75.61/t for C&F areas depending on the zone. A number of incremental material (with values between US$49.67/t and US$73.54/t for SLS and values between US$51.73/t and US$75.61/t for C&F mining) was included in the estimate. Mineral Reserves estimates are based on average long-term metal prices of zinc: US$2,864.90/t (US$1.30/lb); copper: US$9,095.61/t (US$4.13/lb); lead: US$2,097.45/t (US$0.95/lb); and silver: US$24.83/oz. Metallurgical recoveries are accounted for in NSR calculations based on historical processing data and are variable as a function of head grade. Recoveries at LOM average head grades 89.30% for Zn, 15.73% for Cu, 80.02% for Pb, and 62.92% for Ag. Minimum mining width of 5.0 m for C&F mining and 4.0 m for SLS mining were used for reserves shapes and development design and are reported inclusive of extraction losses and dilution.

(8) The Qualified Person for the Mineral Reserves estimate is Renzo Suarez, B.Eng., MAusIMM, a Nexa employee. Subpart 1300 of Regulation S-K definitions were followed for Mineral Reserves, which also are consistent with the CIM (2014) definitions. Mineral Reserves are estimated at a NSR cut-off values of US$20.42/t. A number of incremental material (with values between US$15.12/t and US$20.42/t) was included in the estimates. Mineral Reserves estimates are based on average long-term metal prices of zinc: US$2,864.90/t (US$1.30/lb); lead: US$2,097.45/t (US$0.95/lb); and silver: US$24.83/oz; and gold: US$1,946.05/oz. Metallurgical recoveries are accounted for in NSR calculations based on historical processing data and are variable as a function of head grade. Recoveries at LOM average head grades are 70.44% for Zn, 83.98% for Pb, 75.76% for Ag, and 65.46% for Au.

(9) The Qualified Person for the Mineral Reserves estimate is Vitor Ferraz Viana, B.Eng., FAusIMM, a Nexa employee. Subpart 1300 of Regulation S-K definitions were followed for Mineral Reserves, which also are consistent with the CIM (2014) definitions. Mineral Reserves are estimated at a NSR break-even cut-off value of US$60.68/t processed was estimated from forecasted operating costs and some incremental material between US$49.00/t and US$60.68/t was included. A minimum mining width of 4.0 m was used for SLS and 15.0 m for VRM. The long-term prices derived are in line with the consensus forecasts from banks and independent institutions. Mineral Reserves estimates are based on average long-term metal prices of zinc: US$2,864.90/t (US$1.30/lb); copper: US$9,095.61/t (US$4.13/lb); lead: US$2,097.45/t (US$0.95/lb); and silver: US$24.83/oz; and gold: US$1,946.05/oz. Recoveries at LOM average head grades are 91.08% for Zn, 60.00% for Cu, 84.92% for Pb, 68.00% for Ag, and 67.80% for Au.

Mineral Resources

The following table shows our estimates of Attributable Mineral Resources for our material mining properties as of December 31, 2024 prepared in accordance with Subpart 1300 of Regulation S-K.

				Grade					Contained Metal				
	Ownership Interest (%)	**Class**	**Tonnage [1] (Mt)**	**Zinc (%)**	**Copper (%)**	**Silver (g/t)**	**Lead (%)**	**Gold (g/t)**	**Zinc (kt)**	**Copper (kt)**	**Silver (koz)**	**Lead (kt)**	**Gold (koz)**
Cerro Lindo [3]	83.55	Measured	3.01	2.04	0.72	23.0	0.23	-	61.3	21.8	2,225	7.0	-
		Indicated	2.41	0.99	0.50	22.3	0.19	-	23.7	12.1	1,725	4.6	-
		Subtotal	**5.42**	**1.57**	**0.63**	**22.7**	**0.22**	**-**	**85.0**	**33.9**	**3,950**	**11.7**	**-**
		Inferred	8.39	1.53	0.27	25.5	0.39	-	128.1	22.5	6,862	32.9	-
Vazante [4]	100	Measured	0.46	8.99	-	16.2	0.30	-	41.4	-	240	1.4	-
		Indicated	1.43	10.15	-	4.9	0.09	-	145.1	-	225	1.3	-
		Subtotal	**1.89**	**9.87**	**-**	**7.7**	**0.14**	**-**	**186.5**	**-**	**465**	**2.7**	**-**
		Inferred	12.75	10.11	-	12.4	0.21	-	1,288.4	-	5,068	27.4	-
Vazante Aroeira Tailings [4]	100	Measured	-	-	-	-	-	-	-	-	-	-	-
		Indicated	-	-	-	-	-	-	-	-	-	-	-
		Subtotal	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
		Inferred	0.61	4.26	-	7.6	0.25	-	26.0	-	150	1.5	-
El Porvenir [5]	83.55	Measured	0.68	3.12	0.24	55.6	0.96	-	21.3	1.6	1,220	6.6	-
		Indicated	3.38	3.19	0.20	59.7	0.92	-	107.8	6.6	6,481	31.1	-
		Subtotal	**4.06**	**3.18**	**0.20**	**59.0**	**0.93**	**-**	**129.1**	**8.3**	**7,701**	**37.7**	**-**
		Inferred	12.92	3.67	0.22	81.6	1.33	-	474.0	28.9	33,879	171.7	-
Atacocha (Underground) [6]	81.78	Measured	0.92	3.34	0.27	55.4	0.98	-	30.6	2.5	1,631	8.9	-
		Indicated	2.12	3.18	0.37	55.3	0.92	-	67.5	7.9	3,777	19.6	-
		Subtotal	**3.04**	**3.23**	**0.34**	**55.3**	**0.94**	**-**	**98.1**	**10.4**	**5,408**	**28.5**	**-**
		Inferred	6.76	4.02	0.55	76.6	1.20	-	271.7	37.2	16,655	80.9	-
Atacocha (Open pit) [7]	81.78	Measured	1.61	1.21	-	29.4	0.82	0.18	19.4	-	1,521	13.3	9.1
		Indicated	3.50	0.99	-	28.4	0.87	0.23	34.7	-	3,204	30.4	25.8
		Subtotal	**5.11**	**1.06**	**-**	**28.8**	**0.85**	**0.21**	**54.1**	**-**	**4,726**	**43.6**	**34.9**
		Inferred	1.51	1.33	-	31.3	1.11	0.20	20.0	-	1,514	16.8	9.8
Aripuanã [8]	100	Measured	0.48	2.20	0.39	18.8	0.72	0.51	10.6	1.9	293	3.5	7.9
		Indicated	4.90	3.41	0.19	33.6	1.26	0.28	167.2	9.5	5,286	61.6	44.5
		Subtotal	**5.38**	**3.30**	**0.21**	**32.2**	**1.21**	**0.30**	**177.8**	**11.4**	**5,578**	**65.0**	**52.4**
		Inferred	44.18	3.16	0.31	41.2	1.21	0.38	1,396.0	137.5	58,520	533.8	545.0
Total		**Measured**	**7.16**	**2.58**	**0.39**	**31.0**	**0.57**	**0.07**	**184.6**	**27.8**	**7,131**	**40.6**	**17.0**
		Indicated	**17.74**	**3.08**	**0.20**	**36.3**	**0.84**	**0.12**	**546.0**	**36.1**	**20,697**	**148.6**	**70.3**
		Total	**24.90**	**2.93**	**0.26**	**34.8**	**0.76**	**0.11**	**730.7**	**63.9**	**27,828**	**189.2**	**87.3**
		Inferred	**87.11**	**4.14**	**0.26**	**43.8**	**0.99**	**0.20**	**3,604.1**	**226.2**	**122,648**	**864.9**	**554.7**

Notes:

* Numbers may not add due to rounding.
* The estimation of Mineral Resources involves assumptions about future commodity prices and technical mining matters. Mineral Resources are reported exclusive of those Mineral Resources that were converted to Mineral Reserves, and Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
* The point of reference for Mineral Resources in this table is mill feed materials.
* The El Porvenir, Atacocha Underground and Atacocha Open Pit mines are part of the Cerro Pasco Complex.

The following table shows our estimates of Mineral Resources (100% ownership basis) for our material mining properties as of December 31, 2024 prepared in accordance with Subpart 1300 of Regulation S-K.

	Ownership Interest (%)	Class	Tonnage (2)	Grade					Contained Metal				
				Zinc	Copper	Silver	Lead	Gold	Zinc	Copper	Silver	Lead	Gold
			(Mt)	(%)	(%)	(g/t)	(%)	(g/t)	(kt)	(kt)	(koz)	(kt)	(koz)
Cerro Lindo (3)	83.55	Measured	3.60	2.04	0.72	23.0	0.23	-	73.3	26.1	2,663	8.4	-
		Indicated	2.88	0.99	0.50	22.3	0.19	-	28.4	14.5	2,065	5.6	-
		Subtotal	**6.48**	**1.57**	**0.63**	**22.7**	**0.22**	**-**	**101.7**	**40.6**	**4,727**	**14.0**	**-**
		Inferred	10.04	1.53	0.27	25.5	0.39	-	153.3	26.9	8,213	39.3	-
Vazante (4)	100	Measured	0.46	8.99	-	16.2	0.30	-	41.4	-	240	1.4	-
		Indicated	1.43	10.15	-	4.9	0.09	-	145.1	-	225	1.3	-
		Subtotal	**1.89**	**9.87**	**-**	**7.7**	**0.14**	**-**	**186.5**	**-**	**465**	**2.7**	**-**
		Inferred	12.75	10.11	-	12.4	0.21	-	1,288.4	-	5,068	27.4	-
Vazante Aroeira Tailings (4)	100	Measured	-	-	-	-	-	-	-	-	-	-	-
		Indicated	-	-	-	-	-	-	-	-	-	-	-
		Subtotal	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
		Inferred	0.61	4.26	-	7.6	0.25	-	26.0	-	150	1.5	-

	Ownership Interest (%)	Class	Tonnage (2)	Grade					Contained Metal				
				Zinc	Copper	Silver	Lead	Gold	Zinc	Copper	Silver	Lead	Gold
			(Mt)	(%)	(%)	(g/t)	(%)	(g/t)	(kt)	(kt)	(koz)	(kt)	(koz)
El Porvenir (5)	83.55	Measured	0.82	3.12	0.24	55.6	0.96	-	25.5	2.0	1,461	7.8	-
		Indicated	4.04	3.19	0.20	59.7	0.92	-	129.0	7.9	7,757	37.2	-
		Subtotal	**4.86**	**3.18**	**0.20**	**59.0**	**0.93**	**-**	**154.5**	**9.9**	**9,217**	**45.1**	**-**
		Inferred	15.46	3.67	0.22	81.6	1.33	-	567.3	34.6	40,550	205.5	-
Atacocha (Underground) (6)	81.78	Measured	1.12	3.34	0.27	55.4	0.98	-	37.4	3.0	1,995	10.9	-
		Indicated	2.60	3.18	0.37	55.3	0.92	-	82.6	9.6	4,618	24.0	-
		Subtotal	**3.72**	**3.23**	**0.34**	**55.3**	**0.94**	**-**	**120.0**	**12.7**	**6,613**	**34.9**	**-**
		Inferred	8.26	4.02	0.55	76.6	1.20	-	332.2	45.5	20,366	98.9	-
Atacocha (Open pit) (7)	81.78	Measured	1.96	1.21	-	29.4	0.82	0.18	23.7	-	1,860	16.2	11.1
		Indicated	4.29	0.99	-	28.4	0.87	0.23	42.5	-	3,918	37.1	31.5
		Subtotal	**6.25**	**1.06**	**-**	**28.8**	**0.85**	**0.21**	**66.2**	**-**	**5,778**	**53.4**	**42.6**
		Inferred	1.84	1.33	-	31.3	1.11	0.20	24.4	-	1,851	20.5	11.9
Aripuanã (8)	100	Measured	0.48	2.20	0.39	18.8	0.72	0.51	10.6	1.9	293	3.5	7.9
		Indicated	4.90	3.41	0.19	33.6	1.26	0.28	167.2	9.5	5,286	61.6	44.5
		Subtotal	**5.38**	**3.30**	**0.21**	**32.2**	**1.21**	**0.30**	**177.8**	**11.4**	**5,578**	**65.0**	**52.4**
		Inferred	44.18	3.16	0.31	41.2	1.21	0.38	1,396.0	137.5	58,520	533.8	545.0
Total		**Measured**	**8.45**	**2.51**	**0.39**	**31.3**	**0.57**	**0.07**	**212.0**	**33.0**	**8,512**	**48.3**	**19.0**
		Indicated	**20.13**	**2.95**	**0.21**	**36.9**	**0.83**	**0.12**	**594.7**	**41.6**	**23,868**	**166.8**	**76.0**
		Total	**28.58**	**2.82**	**0.26**	**35.2**	**0.75**	**0.10**	**806.7**	**74.5**	**32,380**	**215.0**	**95.1**
		Inferred	**93.15**	**4.07**	**0.26**	**45.0**	**1.00**	**0.19**	**3,787.6**	**244.6**	**134,718**	**926.9**	**556.9**

Notes:

* Numbers may not add due to rounding.
* The estimation of Mineral Resources involves assumptions about future commodity prices and technical mining matters. Mineral Resources are reported exclusive of those Mineral Resources that were converted to Mineral Reserves, and Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
* The point of reference for Mineral Resources in this table is mill feed materials.
* The El Porvenir, Atacocha Underground and Atacocha Open Pit mines are part of the Cerro Pasco Complex.

(1) The total tonnage and content amounts presented in this table represents Nexa's attributable ownership basis.

(2) The tonnage and content amounts presented in this table represents 100% of the Mineral Resources estimates for the property. Please refer to our ownership percentage for the amounts attributable to our ownership interest in the property.

(3) The Qualified Person for the Mineral Resources estimate is Jerry Huaman Abalos, B.Geo., MAusIMM CP(Geo), a Nexa employee. Subpart 1300 of Regulation S-K definitions were followed for Mineral Resources which also are consistent with the CIM (2014) definitions. Mineral Resources are estimated at an NSR cut-off value of US$44.94/t. Mineral Resources estimates are based on average long-term metal prices of zinc: US$3,294.64/t (US$1.49/lb); copper: US$10,459.95/t (US$4.74/lb); lead: US$2,412.07/t (US$1.09/lb); and silver: US$28.55/oz. Metallurgical recoveries are accounted for in NSR calculations based on historical processing data and are variable as a function of head grade. Recoveries at LOM average head grades are 87.86% for Zn, 84.47% for Cu, 65.65% for Pb, and 68.78% for Ag. A minimum mining width of 4.0 m was used to create resource shapes. Bulk density varies depending on mineralization domain.

(4) The Qualified Person for the Mineral Resources estimate is José Antonio Lopes, B.Geo., FAusIMM(Geo), a Nexa employee. Subpart 1300 of Regulation S-K definitions were followed for Mineral Resources, which also are consistent with the CIM (2014) definitions. Mineral Resources are estimated at various NSR cut-off values appropriate to the mineralization style and mining method. For Supergene Mineralization (calamine) the resources are estimated at a NSR cut-off value of US$27.91/t for soil and US$32.92/t for fresh rock and transition material. For Aroeira Tailings the resources are estimated at a NSR cut-off value of US$28.42/t and for Hypogene Mineralization (willemite) a cut-off value of US$70.52/t for all resources shapes. Mineral Resources are estimates are based on average long-term metal prices of zinc: US$3,294.64/t (US$1.49/lb); lead: US$2,412.07/t (US$1.09/lb); and silver: US$28.55/oz. Metallurgical recoveries are accounted for NSR calculations based on historical processing data and are variable as a function of head grade. Recoveries at LOM average hypogene mineralization (willemite) head grades are 86.52% for Zn, 37.07% for Pb, and 42.0% for Ag. Recovery at LOM average supergene mineralization head grade is 55.0% for Zn. Recoveries at LOM average Aroeira Tailings head grades are 67.98% for Zn, 36.00% for Pb and 42.00% for Ag. A minimum thickness of 3.0 m for underground SLS, open pit shell for calamine and above original topography for tailings was applied. Bulk density was assigned based on rock type.

(5) The Qualified Person for the Mineral Resources estimate is Jerry Huaman Abalos, B.Geo., MAusIMM CP(Geo), a Nexa employee. Subpart 1300 of Regulation S-K definitions were followed for Mineral Resources, which also are consistent with the CIM (2014) definitions. Mineral Resources are estimated at NSR cut-off grade values ranging from of US$68.31/t to US$71.59/t for SLS areas and US$70.31/t to US$71.75for C&F areas depending on the zone. Mineral Resources estimates are based on average long-term metal prices of zinc: US$3,294.64/t (US$1.49/lb); copper: US$10,459.95/t (US$4.74/lb); lead: US$2,412.07/t (US$1.09/lb); and silver: US$28.55/oz. Metallurgical recoveries are accounted for in NSR calculations based on historical processing data and are variable as a function of head grade. Recoveries at LOM average head grades are 89.23% for Zn, 15.03% for Cu, 79.99% for Pb, and 62.92% for Ag. A minimum mining width of 4.0 m was used for C&F and a minimum mining width of 3.0 m was used for SLS resource stopes shapes respectively. Bulk density varies depending on mineralization domain.

(6) The Qualified Person for the Mineral Resources estimate is Jerry Huaman Abalos, B.Geo., MAusIMM CP(Geo), a Nexa employee. Subpart 1300 of Regulation S-K definitions were followed for Mineral Resources, which also are consistent with the CIM (2014) definitions. Mineral Resources are estimated at a NSR cut-off value of US$73.54/t for SLS, and US$75.61/t for C&F. Mineral Resources estimates are based on average long-term metal prices of zinc: US$3,294.64/t (US$1.49/lb); copper: US$10,459.95/t (US$4.74/lb); lead: US$2,412.07/t (US$1.09/lb); and silver: US$28.55/oz. Metallurgical recoveries are accounted for in NSR calculations based on historical processing data and are variable as a function of head grade. Recoveries at LOM average head grades are 89.30% for Zn, 15.73% for Cu, 80.02% for Pb, and 62.92% for Ag. A minimum mining width of 4.0 m was used for C&F and a minimum mining width of 3.0 m was used for SLS resource stopes shapes respectively. Density was assigned based on rock type.

(7) The Qualified Person for the Mineral Resources estimate is Jerry Huaman Abalos, B.Geo., MAusIMM CP(Geo), a Nexa employee. Subpart 1300 of Regulation S-K definitions were followed for Mineral Resources, which also are consistent with the CIM (2014) definitions. Mineral Resources are reported within optimized pit shell. Mineral Resources are estimated at a NSR cut-off value of US$20.42/t. Mineral Resources estimates are based on average long-term metal prices of zinc: US$3,294.64/t (US$1.49/lb); lead: US$2,412.07/t (US$1.09/lb); silver: US$28.55/oz; and gold: US$2,237.96/oz. Metallurgical recoveries are accounted for in NSR calculations based on historical processing data and are variable as a function of head grade. Recoveries at LOM average head grades are 70.44% for Zn, 83.98% for Pb, 75.76% for Ag, and 65.46% for Au. Mineral resources are reported within open pit shell. Density was assigned based on rock type.

(8) The Qualified Person for the Mineral Resources estimate is José Antonio Lopes, B.Geo., FAusIMM(Geo), a Nexa employee. Subpart 1300 of Regulation S-K definitions were followed for Mineral Resources, which also are consistent with the CIM (2014) definitions. Mineral Resources reported using a cut-of value of US$60.68/t. Mineral Resources estimates are based on average long-term metal prices of zinc: US$3,294.64/t (US$1.49/lb); copper: US$10,459.95/t (US$4.74/lb); lead: US$2,412.07/t (US$1.09/lb); silver: US$28.55/oz; and gold: US$2,237.96/oz. Metallurgical recoveries are accounted for in NSR calculations based on historical processing data and are variable as a function of head grade. Recoveries at LOM average head grades are 91.08% for Zn, 60.00% for Cu, 84.92% for Pb, 68.00% for Ag, and 67.80% for Au. A minimum thickness of 3.0 m was used for stopes shapes. Bulk density varies depending on mineralization domain.

The following table shows our estimates of Attributable Mineral Resources for our other operating mines and zinc projects which do not currently have estimated Mineral Reserves as of December 31, 2024 prepared in accordance with Regulation S-K 1300.

				Grade					Contained Metal				
	Ownership (%)	Class	Tonnage [1] (Mt)	Zinc (%)	Copper (%)	Silver (g/t)	Lead (%)	Gold (g/t)	Zinc (kt)	Copper (kt)	Silver (koz)	Lead (kt)	Gold (koz)
Bonsucesso [3]	100	Measured	-	-	-	-	-	-	-	-	-	-	-
		Indicated	9.83	3.78	-	-	0.51	-	371.6	-	-	50.1	-
		Subtotal	**9.83**	**3.78**	**-**	**-**	**0.51**	**-**	**371.6**	**-**	**-**	**50.1**	**-**
		Inferred	3.38	4.17	-	-	0.52	-	140.9	-	-	17.6	-
Hilarión [4]	83.55	Measured	12.15	3.39	-	30.9	0.69	-	412.4	-	12,082	83.5	-
		Indicated	28.43	3.62	-	27.0	0.54	-	1,028.9	-	24,672	153.0	-
		Subtotal	**40.58**	**3.55**	**-**	**28.2**	**0.58**	**-**	**1,441.3**	**-**	**36,754**	**236.6**	**-**
		Inferred	35.23	4.06	-	25.0	0.41	-	1,430.9	-	28,297	144.5	-
Florida Canyon Zinc [5]	50.97	Measured	0.41	11.32	-	15.4	1.39	-	46.7	-	204	5.8	-
		Indicated	0.83	10.28	-	14.9	1.31	-	85.4	-	398	10.9	-
		Subtotal	**1.24**	**10.62**	**-**	**15.1**	**1.34**	**-**	**132.2**	**-**	**603**	**16.7**	**-**
		Inferred	7.57	9.64	-	11.3	1.26	-	729.4	-	2,752	95.4	-
Total		**Measured**	**12.56**	**3.66**	**-**	**30.4**	**0.71**	**-**	**459.1**	**-**	**12,286**	**89.3**	**-**
		Indicated	**39.09**	**3.80**	**-**	**19.9**	**0.55**	**-**	**1,486.0**	**-**	**25,070**	**214.1**	**-**
		Total	**51.66**	**3.77**	**-**	**22.5**	**0.59**	**-**	**1,945.1**	**-**	**37,356**	**303.4**	**-**
		Inferred	**46.18**	**4.98**	**-**	**20.9**	**0.56**	**-**	**2,301.1**	**-**	**31,048**	**257.5**	**-**

Notes:

* Numbers may not add due to rounding.
* The estimation of Mineral Resources involves assumptions about future commodity prices and technical mining matters. Mineral Resources are not mineral reserves and do not have demonstrated economic viability.
* The point of reference for Mineral Resources in this table is mill feed materials.

The following table shows our estimates of Mineral Resources (100% ownership basis) for our other operating mines and zinc projects which do not currently have estimated Mineral Reserves as of December 31, 2024 prepared in accordance with Regulation S-K 1300.

				Grade					Contained Metal				
	Ownership (%)	**Class**	**Tonnage [2] (Mt)**	**Zinc (%)**	**Copper (%)**	**Silver (g/t)**	**Lead (%)**	**Gold (g/t)**	**Zinc (kt)**	**Copper (kt)**	**Silver (koz)**	**Lead (kt)**	**Gold (koz)**
Bonsucesso [3]	100	Measured	-	-	-	-		-	-	-	-	-	-
		Indicated	9.83	3.78	-	-	0.51	-	371.6	-	-	50.1	-
		Subtotal	**9.83**	**3.78**	**-**	**-**	**0.51**	**-**	**371.6**	**-**	**-**	**50.1**	**-**
		Inferred	3.38	4.17	-	-	0.52	-	140.9	-	-	17.6	-
Hilarión [4]	83.55	Measured	14.54	3.39	-	30.9	0.69	-	493.6	-	14,460	100.0	-
		Indicated	34.03	3.62	-	27.0	0.54	-	1,231.5	-	29,530	183.2	-
		Subtotal	**48.57**	**3.55**	**-**	**28.2**	**0.58**	**-**	**1,725.1**	**-**	**43,990**	**283.2**	**-**
		Inferred	42.17	4.06	-	25.0	0.41	-	1,712.6	-	33,868	173.0	-
Florida Canyon Zinc [5]	50.97	Measured	0.81	11.32	-	15.4	1.39	-	91.7	-	401	11.3	-
		Indicated	1.63	10.28	-	14.9	1.31	-	167.6	-	781	21.4	-
		Subtotal	**2.44**	**10.62**	**-**	**15.1**	**1.34**	**-**	**259.3**	**-**	**1,182**	**32.7**	**-**
		Inferred	14.86	9.64	-	11.3	1.26	-	1,431.0	-	5,399	187.2	-
Total		**Measured**	**15.35**	**3.81**	**-**	**30.1**	**0.73**	**-**	**585.3**	**-**	**14,862**	**111.3**	**-**
		Indicated	**45.49**	**3.89**	**-**	**20.7**	**0.56**	**-**	**1,770.8**	**-**	**30,311**	**254.7**	**-**
		Total	**60.84**	**3.87**	**-**	**23.1**	**0.60**	**-**	**2,356.0**	**-**	**45,172**	**366.0**	**-**
		Inferred	**60.40**	**5.44**	**-**	**20.2**	**0.63**	**-**	**3,284.5**	**-**	**39,267**	**377.8**	**-**

Notes:

* Numbers may not add due to rounding.

* The estimation of Mineral Resources involves assumptions about future commodity prices and technical mining matters. Mineral Resources are not mineral reserves and do not have demonstrated economic viability.

* The point of reference for Mineral Resources in this table is mill feed materials.

(1) The tonnage and content amounts presented in this table represents Nexa’s attributable ownership basis.

(2) The tonnage and content amounts presented in this table represents 100% of the Mineral Resources estimates for the property. Please refer to our ownership percentage for the amounts attributable to our ownership interest in the property.

(3) The Qualified Person for the Mineral Resources estimate is José Antonio Lopes, B.Geo., FAusIMM(Geo), a Nexa employee. Subpart 1300 of Regulation S-K definitions were followed for Mineral Resources, which also are consistent with the CIM (2014) definitions. Mineral Resources are reported within underground mining shapes and the NSR cut-off values are calculated based on the LOM cost of US$55.83/t. Mineral Resources estimates are based on average long-term metal prices of zinc: US$3,218.90/t (US$1.46/lb) and lead: US$2,300.33/t (US$1.04/lb). Metallurgical recoveries are accounted for in NSR calculations based on historical processing data and are variable as a function of head grade. Recoveries at the LOM average head grades are 92.50% for Zn and 61.10% for Pb. A minimum thickness of 3.0 m was applied. Density was assigned based on rock type.

(4) The Qualified Person for the Mineral Resources estimate is Jerry Huaman Abalos, B.Geo., MAusIMM CP(Geo), a Nexa employee. Subpart 1300 of Regulation S-K definitions were followed for Mineral Resources, which also are consistent with the CIM (2014) definitions. Mineral Resources are estimated at an NSR cut-off value of US$45.00/t. Mineral Resources estimates are based on average long-term metal prices of: zinc US$3,245.91/t (US$1.47/lb); lead: US$2,332.46/t (US$1.06/lb); and silver: US$22.66/oz. Metallurgical recoveries are accounted for in NSR calculations based on historical processing data and are variable as a function of head grade. Recoveries at the LOM average head grades for Hilarion are 90.00% for Zn, 86.00% for Pb, and 72.00% for Ag. A minimum thickness of 4.0 m was applied. Density was assigned based on rock type.

(5) The Qualified Person for the Mineral Resources estimate is Jerry Huaman Abalos, B.Geo., MAusIMM CP(Geo), a Nexa employee. Subpart 1300 of Regulation S-K definitions were followed for Mineral Resources, which also are consistent with the CIM (2014) definitions. Mineral Resources are estimated at an NSR cut-off value of US$41.40/t NSR for SLS, US$42.93/t for C&F and US$40.61/t for Room & Pillar mine areas. Mineral Resources estimates are based on average long-term metal prices of zinc: US$2,816.35/t (US$1.27/lb); lead: US$ 2,196.50/t (US$1.00/lb); and silver: US$19.38/oz. Metallurgical recoveries are accounted for in NSR calculations based on historical processing data and are variable as a function of head grade. Recoveries at the LOM average head grades for Florida Canyon are 80.00% for Zn, 74.00% for Pb, and 52.00% for Ag. A minimum thickness of 3.0 m was applied. Density was assigned based on rock type.

The following table shows our estimates of Attributable Mineral Resources for our copper project which does not currently have estimated Mineral Reserves as of December 31, 2024 prepared in accordance with Regulation S-K 1300.

				Grade					Contained Metal				
	Ownership (%)	**Class**	**Tonnage [1]**	**Zinc**	**Copper**	**Silver**	**Lead**	**Molybdenum**	**Zinc**	**Copper**	**Silver**	**Lead**	**Molybdenum**
			(Mt)	**(%)**	**(%)**	**(g/t)**	**(%)**	**(%)**	**(kt)**	**(kt)**	**(koz)**	**(kt)**	**(kt)**
Magistral [3]	83.55	Measured	82.46	-	0.52	2.8	-	0.052	-	426.2	7,440	-	42.6
		Indicated	75.77	-	0.43	2.8	-	0.040	-	329.5	6,718	-	30.2
		Subtotal	**158.22**	**-**	**0.48**	**2.8**	**-**	**0.046**	**-**	**755.7**	**14,158**	**-**	**72.8**
		Inferred	9.24	-	0.38	3.1	-	0.050	-	35.3	910	-	4.6
Total		**Measured**	**82.46**	**-**	**0.52**	**2.8**	**-**	**0.052**	**-**	**426.2**	**7,440**	**-**	**42.6**
		Indicated	**75.77**	**-**	**0.43**	**2.8**	**-**	**0.040**	**-**	**329.5**	**6,718**	**-**	**30.2**
		Total	**158.22**	**-**	**0.48**	**2.8**	**-**	**0.046**	**-**	**755.7**	**14,158**	**-**	**72.8**
		Inferred	**9.24**	**-**	**0.38**	**3.1**	**-**	**0.050**	**-**	**35.3**	**910**	**-**	**4.6**

Notes:

* Numbers may not add due to rounding.
* The estimation of Mineral Resources involves assumptions about future commodity prices and technical mining matters. Mineral Resources are not mineral reserves and do not have demonstrated economic viability.
* The point of reference for Mineral Resources in this table is mill feed materials.

The following table shows our estimates of Mineral Resources (100% ownership basis) for our copper project which does not currently have estimated Mineral Reserves as of December 31, 2024 prepared in accordance with Regulation S-K 1300.

				Grade					Contained Metal				
	Ownership (%)	**Class**	**Tonnage [2]**	**Zinc**	**Copper**	**Silver**	**Lead**	**Molybdenum**	**Zinc**	**Copper**	**Silver**	**Lead**	**Molybdenum**
			(Mt)	**(%)**	**(%)**	**(g/t)**	**(%)**	**(%)**	**(kt)**	**(kt)**	**(koz)**	**(kt)**	**(kt)**
Magistral [3]	83.55	Measured	98.69	-	0.52	2.8	-	0.052	-	510	8,905	-	51.0
		Indicated	90.68	-	0.43	2.8	-	0.040	-	394	8,041	-	36.1
		Subtotal	**189.38**	**-**	**0.48**	**2.8**	**-**	**0.046**	**-**	**904**	**16,946**	**-**	**87**
		Inferred	11.06	-	0.38	3.1	-	0.050	-	42	1,089	-	5.5
Total		**Measured**	**98.69**	**-**	**0.52**	**2.8**	**-**	**0.052**	**-**	**510**	**8,905**	**-**	**51.0**
		Indicated	**90.68**	**-**	**0.43**	**2.8**	**-**	**0.040**	**-**	**394**	**8,041**	**-**	**36.1**
		Total	**189.38**	**-**	**0.48**	**2.8**	**-**	**0.046**	**-**	**904**	**16,946**	**-**	**87**
		Inferred	**11.06**	**-**	**0.38**	**3.1**	**-**	**0.050**	**-**	**42**	**1,089**	**-**	**5.5**

Notes:

* Numbers may not add due to rounding.
* The estimation of Mineral Resources involves assumptions about future commodity prices and technical mining matters. Mineral Resources are not mineral reserves and do not have demonstrated economic viability.
* The point of reference for Mineral Resources in this table is mill feed materials.

(1) The tonnage and content amounts presented in this table represents Nexa's attributable ownership basis.

(2) The tonnage and content amounts presented in this table represents 100% of the Mineral Resources estimates for the property. Please refer to our ownership percentage for the amounts attributable to our ownership interest in the property.

(3) The Qualified Person for the Mineral Resources estimate is Jerry Huaman Abalos, B.Geo., MAusIMM CP(Geo), a Nexa employee. Subpart 1300 of Regulation S-K definitions were followed for Mineral Resources, which also are consistent with the CIM (2014) definitions. Mineral Resources are estimated at a pit shell constraint and NSR cut-off value: US$5.99/t (Porf San Ernesto, Porf. Sara and Porf. H), US$5.51/t (Mixto), US$5.48/t (Skarn). Mineral Resources estimates are based on average long-term metal prices of copper: US$8,272.00/t (US$3.75/lb); silver: US$21.34/oz; and molybdenum: US$21,829.00/t (US$ 9.90/lb). Metallurgical recoveries are accounted for in the NSR calculations based on metallurgical data and vary from 79.3% in skarn to 92.5% in San Ernesto porphyry for Cu, 51.3% in skarn and 79.2% in San Ernesto porphyry for Mo, and 70.0% for Ag. Density was assigned based on rock type.

Internal Controls Disclosure

Nexa has used well-established quality assurance/quality controls (“QA/QC”) protocols since 2007 for core samples from operating mines and its Brownfield/Greenfield projects. Nexa has used a corporate database (GDMS Fusion) from Datamine since 2017, which replaced the previous corporate database system used from 2007 to 2016. The current database system has several default laboratory packages, specific for different Business Units (ore deposit types/countries) with pre-defined preparation and assay methods, reporting units and over-limit methods. All assay dispatches from all mines and projects follows the same protocols for each medium type (core, rock, soil, stream sediment samples). All written protocols are in a corporate internal system that requires revisions and updates every three years.

Nexa Quality Control includes three types of duplicates (pulp, coarse rejects and half core duplicates), blank controls and certified standards. Inter-laboratory checks are also carried out on an annual basis at certified laboratories. Fusion database has a collection of pre-defined QA/QC charts for each type of control where Nexa parameters for each control are built in. All blanks and certified standards are approved and registered in Fusion by the database administrator. Nexa protocols for construction and certification of new standards from operating mines and projects include a minimum of ten laboratories and minimum of ten samples per lab in the Round Robin. Laboratories need to be form different continents and only three laboratories from the same group are allowed.

Every mine and advanced project provides a detailed QA/QC report at least once a year, which is appended to the updated mineral resources technical reports prepared by our engineers.

With respect to the verification of analytical procedures, Nexa carries out periodic reviews of the QA/QC programs to ensure that an adequate level of quality is maintained in the process of sampling, preparing and testing drill core samples and that the QA/QC programs are designed and implemented to prevent or detect contamination and allow analytical precision and accuracy to be quantified. Nexa’s internal qualified person performed this review and concluded that Nexa's QA/QC programs meet or exceed industry standards, and the data are suitable for Mineral Resources and Mineral Reserves purposes.

Internally, regular data verification workflows are carried out to ensure the collection of reliable data. Coordinates, core logging, surveying, and sampling are monitored by exploration, mine geologists, and verified routinely for consistency.

The Mineral Resource and Mineral Reserve estimates are supported by a review of the recent operation results including operating costs, production, metallurgical performance and reconciliation. The LOM plan supporting the estimates includes consideration of changes to the permits required, capital costs, tailings capacity and other production constraints. The estimates are subject to normal industry risks including metal prices, metallurgical performance and geological modeling. For geological risk Nexa has modeling and estimation procedures following mining industry best practices including drilling, borehole survey, core logging, sampling, and density protocols.

CAPITAL EXPENDITURES

Our capital expenditures from January 1, 2022 through December 31, 2024 totaled US$967.1 million and we expect to invest US$347.0 million in capital expenditures in 2025, increasing levels compared to our 2024 investments, primarily related to the tailings pumping system, which is the central element of the first phase of the Cerro Pasco Integration Project, the expansion of tailings filter capacity at Aripuanã, including the acquisition and installation of a fourth filter, the expansion of the tailings stockpile area at Aripuanã, and the improvement of the dry stacking method at the Três Marias smelter. Our guidance includes US$344.0 million directed towards non-expansion investments and US$3.0 million towards expansion projects.

The following table sets forth our capital expenditures for the periods indicated.

	For the Year Ended December 31,		
	2024	**2023**	**2022**
		(in millions of US$)	
Capital Expenditures			
Expansion [(1)]	2.3	3.7	88.5
Modernization	3.3	3.8	10.3
Sustaining [(2)]	268.0	292.8	239.7
Health, Safety and Environment (“HS&E”)	12.2	15.7	40.1
Others	6.6	3.5	1.1
Subtotal	**292.4**	**319.5**	**379.7**
Reconciliation to Financial Statements [(3)]	(15.5)	(10.5)	1.6
Total	**276.8**	**309.0**	**381.2**

(1) For a description of the projects, see “Information on the Company—Mining operations.”

(2) Investments in investments related to the tailings storage facilities are included in sustaining expenses.

(3) The amounts under “Reconciliation to Financial Statements” are mainly related to advance payment of imported materials, capitalization of interest net of advanced payments and tax credits.

Our main capital expenditures during the years ended December 31, 2024, 2023 and 2022 include the following:

- In 2024, our capital expenditures totaled US$276.8 million, a 10.4% decrease compared to 2023, mainly due to a reduction in sustaining investments resulting from favorable foreign exchange fluctuation, and ongoing efforts and initiatives to optimize capital allocation.
- In 2023, our capital expenditures were US$309.0 million, an 18.9% decrease compared to 2022, mainly due to a reduction in expansion investments following the conclusion of construction at Aripuanã. This decrease was partially offset by an increase in sustaining capital expenditures, including US$79.4 million invested in the Aripuanã mine.
- In 2022, our capital expenditures amounted to US$381.2 million, a 24.9% decrease compared to 2021, largely driven by a reduction in growth capital expenditures following the conclusion of construction at Aripuanã. This was partially offset by an increase in sustaining Capex, including US$45.8 million invested in the Aripuanã mine.

We expect to meet these capital expenditure requirements through our operating cash flow and current cash position. However, we may need to incur indebtedness to finance a portion of these expenditures or take on debt if financing options are available at attractive terms. Our actual capital expenditures may vary from the expected amounts outlined here, both in terms of total expenditures we incur and when we incur them.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG)

We are committed to fully integrating sustainability into our business through a comprehensive approach based on systematic planning and execution, prioritizing risk and impact management, and maintaining a positive social, economic and environmental legacy in the places where we operate. Our practices related to ESG are continuously evolving to adapt to new framework, and regulatory and disclosure requirements, as well as to consider best practices and respond to stakeholder feedback, as we view ESG as core to our efforts to generate shareholder and social-environmental value.

Nexa integrates sustainability practices into its business, focused on generating a positive social, economic and environmental impact in the regions where it operates. Within this context, the Company has a multidisciplinary and integrated task force that continuously assess and refines its ESG strategy and future actions including risks analyses with respect to the increasing severity of weather events, and global, regional and local weather conditions, as well as those related to the emission of greenhouse gases, among other matters. Nexa's ESG strategy takes a long-term approach, and as a result the Company could in the future change its accounting estimates, assumptions and judgments regarding new definitions, practices or commitments that would be assumed by management in relation to its ESG strategy.

In 2024, the Company advanced on its ESG targets and strategy by progressing on projects and initiatives. As part of these efforts, we conducted a comprehensive review of our internal ESG goals for 2030. This review aimed to update and align metrics and targets with the Company's long-term investment strategy. The process fostered valuable discussions among teams on multiple ESG-related topics, resulting in a more aligned and ambitious approach.

Our sustainability approach is set out in our Code of Conduct and Compliance, and in our ESG strategy. We adhere to the United Nation's Global Compact and the goals related to our material topics seek to contribute to fulfilling the UN's Sustainable Development Goals ("SDGs"). Our current material topics and ESG initiatives strive to meet the SDGs.

We view ESG as core to our efforts to generate shareholder and social-environmental value, including:

- Putting the health, safety and well-being of our people first and emphasizing safety as a nonnegotiable value for Nexa;
- Being environmentally responsible and accountable;
- Respecting and fostering the human rights agenda; and
- Supporting and constantly dialoging with the communities where we operate.

Board of Directors, SCP Committee, Compensation, Nominating and Governance ("CNG") Committee, and Audit Committee reporting

Our Board of Directors oversees our ESG strategy, given its strategic importance to the us and our operations. The Board of Directors is responsible for guidance, governance and oversight of ESG, and overseeing our current material topics. Our committees, and in particular the CNG Committee, focusing on governance, the SCP Committee, focusing on sustainability, and the Audit Committee, focusing on financial reporting, support the Board in its monitoring and oversight of ESG matters. Specifically, our SCP committee oversees and contributes to our ESG strategy plan, ensuring that we are considering material and relevant topics to Nexa and its stakeholders, as well as proposing reasonable ESG targets and benchmarks.

Our CNG committee assists our Board of directors in fulfilling its governance and supervisory responsibilities and advises our Board of directors with respect to evaluation and monitoring of compensation models and policies and other related matters. The committee's responsibilities also include the supervision and approval of our social responsibility plans and policies, including, but not limited to, those described in our ESG Strategy (except community related aspects, which are overseen by the SCP committee).

Our SCP committee oversees sustainability-related issues, which include the prioritization of safe and sustainable business practices with respect to environmental, health, safety and social matters, as well as the oversight of the management and governance of our tailings disposals. The SCP committee also oversees our capital projects, monitoring technical, economic and social issues with respect to our projects, including exploration, development, licensing, construction and operation of mines and metallurgical plants and key assets for our strategy and growth. In 2022, our SCP committee reaffirmed our ESG strategy, restated our framework, approved new long-term targets and reviewed management's ESG plan. During 2024, the committee met six times and discussed ESG topics in all of these meetings.

The Audit Committee is also involved in ESG matters, in particular with respect to the analysis of the impact on financial reporting, as well as preparedness in order to meet financial reporting and disclosure requirements that may be implemented in the near future.

The Corporate Sustainability Reporting Directive ("CSRD") is an update to the former Non-Financial Reporting Directive ("NFRD") by the European Union, aiming to enhance and standardize the disclosure of sustainability information by companies. The CSRD introduces more detailed reporting requirements and expands the scope of companies that must comply with the directive. The Audit Committee oversees the adherence to the NFRD, which governs the fiscal year ended December 31, 2025.

ESG Commitments

In October 2022, we announced our new long-term ESG commitments, aligned with the Paris Agreement and focused on reducing the impacts of adverse weather events. We adopted a new ESG Governance Framework that is intended to enable Nexa to enhance our position in the industry and capture potential opportunities.

Emission Reduction and Neutrality: Nexa has been focusing investments on GHG emissions reductions for more than a decade and currently has one of the lowest carbon footprints in the world in the zinc production industry (scopes 1 and 2), according to the International Zinc Association ("IZA"). In alignment with the Paris Agreement, Nexa's goal is to reach net zero by 2050. Our commitments in this category are:

- Absolute reduction of scope 1 emissions in 20% from our 2022 baseline (52 thousand tons of CO2 equivalent), keeping Nexa's electrical energy matrix almost entirely composed of renewable sources[1] by 2030;
- Reach neutrality – the balance between carbon emissions and absorption – by 2040; and
- Reach net-zero GHG emissions by 2050.

Our direct emissions (scope 1) totaled 226.96 ktCO2e, marking a 7.4% decrease from 2023. In order to reduce greenhouse gas emissions, Nexa is developing innovative projects in collaboration with different partners to improve its performance towards its decarbonization goals. In December 2024, we completed the reengineering of 12 ZnO furnaces to operate using bio-oil at our Três Marias smelter, a significant milestone in advancing our sustainability targets. This initiative is expected to reduce our annual CO2 emissions by approximately 6.44 thousand tons, starting in 2025. In December 2024, we also completed an LCA on our products, which aims to identify the contribution of each stage of the value chain to the total environmental impacts generated.

In 2024, our energy matrix was kept mainly renewable, with renewable energy accounting for 98.4% of the matrix, emphasizing the Company's commitment to the use of renewable energy.

In February 2024, we announced that the Carbon Disclosure Project concluded its 2023 evaluation for the year-ended 2022 and upgraded Nexa's rating in the Climate Change Questionnaire from C to B.

Safety: Nexa seeks to be a model when it comes to safety, focusing on building a safer environment with zero fatalities and a reduction of severe accidents through a robust cultural transformation program in health and safety, including awareness campaigns, counseling, and monitoring for both employees and third parties. Our commitments in this category are:

[1] 95.5% electric energy from renewable sources based on 2023 data.

- Zero fatalities in all operating units (annually); and

- By 2030, consolidate all units in the first quartile of the mining industry with regard to the Total Recordable Injury Frequency Rate (“TRIFR”) based on the International Council on Mining and Metals (“ICMM”) benchmarks.

Unfortunately, in 2024, Nexa registered three fatalities and its 2024 TRIFR final outcome positioned the Company in the industry’s second quartile based on 2023 benchmarks set by the International Council on Mining and Metals. As of the date of this annual report, Nexa registered zero fatalities in 2025.

During 2024, we continued to implement our G-MIRM (“Global Minerals Industry Risk Management”) project, which is focused on enhancing the culture of safety and improve risk management capabilities in Nexa’s operating units by providing training and discussing new safety procedures. In Brazil, we continued our partnership with São Paulo University (USP), while in Peru, we established a collaboration with the Sustainable Mining Institute – International Center of Excellence (SMI-ICE-Chile), which is part of the University of Queensland. Several training sessions were held with general managers, department heads, supervisors and team leads in both Brazil and Peru, and we also initiated training for the operational workforce. In total, we trained 1,542 people and provided 12,884 hours of training.

In 2024, due to the fatalities that occurred earlier in the year, we also introduced a new structured 30-day, 90-day and 180-day safety plan, focusing on key actions to reduce risk exposure, boost safety practices, and reinforce leadership oversight, demonstrating our commitment to continuously improve our safety system. Additionally, the "Safety in Focus" agenda was incorporated into the schedules of the CEO and directors to monitor the progress of each of our operational units on safety-related topics.

Water usage and disposal: Nexa prioritizes the responsible management of water and seeks to reduce its consumption by 2030. Our commitment in this category is:

- 10% reduction of specific consumption of water in mining operations from our 2022 baseline (from 1.68 m^3/ton of run-of-mine (“ROM”) to 1.51 m^3/ton of ROM) and smelting operations (from 24.01 m^3/ton of metal to 21.61 m^3/ton of metal).

In 2024, the average consumption of water in mining operations represented 2.26 m^3/ton of ROM and 20.64 m^3/ton of metal in smelting operations. For our mining units, average consumption was above the baseline due to the increase in specific consumption at the El Porvenir and Aripuanã units, while for our smelting units, average consumption was below the baseline due to lower water consumption in Três Marias and Juiz de Fora units. For the coming years, we have projects and initiatives in place to improve mining and smelting results, allowing us to meet our goal by 2030.

Plurality: Nexa is committed to becoming an increasingly plural company, emphasizing equity and inclusion to promote an environment of opportunity, recognition, and acceptance for all. Our commitments in this category include:

- Achieving 30% representation of women in the workforce by 2030;

- Achieving 30% representation of women in leadership positions by 2030.

As of December 31, 2024, women made up 17.8% of our workforce. In leadership roles, 22.9% of positions were occupied by women.

Nexa Materiality Matrix

On April 24, 2024, we published our 2023 sustainability report that highlights our ongoing commitment to corporate sustainability and socially responsible actions, as laid out in our materiality matrix. The Nexa materiality matrix defines the issues that are most relevant to our business and our stakeholders, guiding how we plan and execute our ESG initiatives. We use this matrix to help inform our sustainability strategies and to ensure that our sustainability disclosures include the issues of most interest to our business and stakeholders in line with the principles established by the International Integrated Reporting Council (“IIRC”) and Global Reporting Initiative (“GRI”) and the Sustainability Accounting Standards Board (“SASB”). In 2024, we aligned specific initiatives and sub-strategies with the broad key matters that are considered relevant for our industry and for our stakeholders. For more information on our initiatives, see www.nexaresources.com/esg. Information contained on our website is not incorporated by reference into this report, and you should not consider it to be part of this report.

Our current material topics support corporate goals and ESG management guidelines towards the following themes: dam, waste and tailings management, adverse weather events, water resources management, social management, health, safety and well-being, innovation and governance and reputation, among others. Nexa's ESG long-term commitments are an important part of some of these topics, enhancing the Company's commitment to a more sustainable operation.

Environmental

- ***Dam, waste and tailings management.*** We aim to reduce our residue footprint. by reducing the generation of mining and metallurgical waste, complying with applicable local legislation, and acting in accordance with our strategic commitment, attempting to co-create a positive legacy for society. Our Cerro Lindo, Vazante and Aripuanã mines already use the dry stacking method for tailings disposal and our Aripuanã mine has also begun its operation using this method. In 2023, we started testing the dry stacking process in Três Marias. In 2024, we consolidated the process and then filtered an average of 92.4% of the material from the operation throughout the year. As tailings disposals are one of the main risks associated with mining activity, we constantly review our dam management policy, which goes beyond the requirements of the legislation of the jurisdictions in which we operate. Nexa is committed to aligning its tailings management practices with Global Industry Standard on Tailings Management ("GISTM") to ensure the highest standards of safety and environmental stewardship, focusing actions on: (i) governance practices on tailing management; (ii) risk management and monitoring and (iii) stakeholder engagement.

- ***Climate change (Adverse weather events).*** We are also committed to reducing greenhouse gas emissions to minimize our impact on adverse weather events and contribute to a low-carbon economy. Given the energy-intensive nature of our activities and transportation processes, we actively seek new technologies and advancements in sustainable energy generation. A significant portion of the electricity consumed in our operations comes from renewable and low emission sources, predominantly hydroelectric power. In 2024, we made notable progress in our decarbonization strategy, which is targeted until 2030, by converting furnaces to bio-oil. Additionally, at our Cajamarquilla smelter, we implemented the ON GRID solar system in 2023, providing solar-generated electricity, thereby reducing our carbon footprint and promoting clean energy production.

- ***Water resources management.*** Our target is to reduce water consumption and increase water recycling. Mining activity involves technical procedures in which water assumes an important role, both for extraction and processing, making it even more important to reduce water use and increase reuse throughout the value chain. In 2024, we improved water recycling efficiency at our Aripuanã as water from four of our five wetlands that was previously treated and discharged is now fully recycled, while only one is still receiving discharged treated effluent.

Social

- ***Social development.*** We aim to develop mutually beneficial relationships with the communities in which we operate. We aim to leave a long-lasting relevant legacy for local communities (including rural producers, suppliers and local entrepreneurs) by contributing to the improvement of social indicators and the quality of life of the people living in the municipalities near our operations. In 2024, we dedicated over 2,300 hours to volunteer action across our units, benefiting more than 25,000 people. Our focus in 2024 was on supporting income generation, providing school supplies to students and enhancing educational spaces.

- ***Health, safety and well-being.*** Our goal is to reduce our injury frequency rate and to reduce fatalities to zero. We continuously invest in strengthening a culture focused on safety and health for both our own as well as outsourced employees, through training, especially for risky activities, and in enhancing working conditions. In September 2024, we held our annual Safety Week to share insights and experiences to enhance our culture of safety and to strengthen our awareness of potential risks, promote healthy habits, and encourage safe behaviors. For further discussion of our safety records, please refer to "Health and safety compliance" in the following section.

Governance

- ***Governance and reputation.*** Acting responsibly and transparently is one of our core values. We are committed to high standards of ethics and integrity across the entire company, which principles stated in our Code of Conduct and reflected in our Compliance Program. Our Board of directors is one of the main agents in promoting the program and ensuring compliance with our Code of Conduct, which is a public document shared with all stakeholders, including employees, suppliers, customers, communities, NGOs, government agencies, shareholders and other individuals and organizations with which we have a relationship. In 2024, as in previous years, we disseminated our Code of Conduct among all employees at a global level and the Code of Conduct for Suppliers with strategic vendors. In addition, we trained all units in Peru and Brazil on bullying, harassment, conflicts of interest and the use of the ethics line channel, reinforcing Nexa's commitment to zero tolerance for any harassment and discrimination. For further information on our Company's governance, see "Corporate governance, management and employees".

Other

- ***Innovation.*** Enabling the strategic axes of growth and operational excellence makes our operations safer, minimizing waste and optimizes production. As an example, in May 2024, as part of one of Nexa's circular economy initiatives, we completed our first commercial sale transaction involving 26.4 tonnes of waste material from our Três Marias smelter

Health and safety compliance

Health and safety in the workplace are among our main values, and our policies and procedures seek to eliminate accidents. Mining is an activity that involves substantial risks. We established a Health and Safety Director Plan ("H&S Director Plan") focused on the following objectives (i) eliminate fatalities; (ii) reduce the severity and number of accidents and illnesses; and (iii) raise the health, safety and well-being culture standards in our sites. The H&S Director Plan has facilitated the improvement of our health and safety culture and performance and includes seven pillars of focus: (1) cultural transformation, (2) risk management, (3) emergency response systems, (4) health and safety management systems, (5) infrastructure systems, (6) restructuring of corporate guidelines, and (7) occupational hygiene and wellbeing management.

A main focus of the H&S Director Plan is cultural transformation. Throughout 2022, 2023 and 2024, our leadership team and employees have had the opportunity to participate in this training, seeking significant and lasting changes in decision-making at all hierarchical levels, and creating and improving risk management in companies in a sustainable and effective way. The main benefits of the program are: (i) awareness and early recognition at all levels of significant hazards and risks to the enterprise; (ii) development of internal competencies for the scope of a risk assessment and applying tools for comparison with good practice approaches; (iii) providing practical tools to improve risk management and advance security procedures; (iv) improved understanding of a personal commitment to safety and defining responsibilities for risk management leading to better decision-making processes; and (v) identification of new opportunities to strengthen internal security policies and procedures.

In 2024, we registered three fatalities, one that occurred at the El Porvenir mine, one at the Vazante mine and one at the Cerro Lindo mine. All fatalities were investigated by specialized teams from Nexa and external parties. Additional safety measures implemented related to the accidents were disseminated to all units in order to mitigate the possibility of similar accidents occurring. We have also sought to improve our safety record as it relates to recordable injury frequency, lost worktime incident, and severity rates, in conformity with standards in the mining industry. In 2024, our total recordable injury frequency rate was 2.36 compared to 2.15 in 2023 and 1.98 in 2022. This rate is defined as the number of injuries with and without lost time per one million man-hours worked. In 2024, our lost worktime incident rate was 1.11 compared to 0.88 in 2023 and 0.75 in 2022. This rate is defined as the number of injuries with lost time per one million man-hours worked. Our severity rate for 2024 was 529 compared to 64 in 2023 and 163 in 2022. To calculate the severity rate, we consider the sum of lost, transported and debited days, divided by the total number of man-hours worked times one million. In addition to these efforts, we also operate programs aimed at improving working conditions, including medical services, for our mining operations and monitoring employees' health.

REGULATORY MATTERS

We are subject to a wide range of governmental regulations in the jurisdictions in which we operate. The following discussion summarizes the kinds of regulations that have the most significant impact on our operations.

Brazilian regulatory framework

Mining rights and regulation of mining activities

Mining activities in Brazil are governed by the Brazilian Federal Constitution of 1988, the Brazilian Mining Code and other decrees, laws, ordinances and regulations, such as Decree nº 9.406/2018 which renewed the regulation of the Mining Code. These regulations impose several obligations on mining companies relating to, among other things, the way mineral deposits are exploited, the health and safety of workers and local communities where mines are located, and environmental protection and remediation measures. They also set forth the Brazilian federal government's jurisdiction over, and scope of activities within the industry. The MME and ANM regulate mining activities in Brazil. As of July 2017, the ANM replaced the National Department of Mineral Production ("DNPM"), and is responsible for monitoring, analyzing and promoting the performance of the Brazilian mineral economy, granting rights related to the exploration and exploitation of mineral resources and mineral reserves and other related activities in Brazil.

Under the Brazilian Federal Constitution, surface property rights are distinct from mineral rights, which belong exclusively to the Brazilian Federal Government, the sole entity responsible for governing mineral exploration and mining activity in Brazil.

Summary of Brazilian concessions

In Brazil, we hold 102 exploration authorizations, 10 mining concessions, five mining concession applications, two rights to apply for mining concession and 26 exploration authorization applications, which we broadly and collectively refer herein to as mineral rights, that cover a total area of 617,757.7 hectares, of which: (i) 441,196.4 hectares, or 71.4%, are exploration authorizations, (ii) 7,529.3 hectares, or 1.2%, are mining concessions, (iii) 1,641.8 hectares, or 0.3%, are mining concession applications, (iv) 1,344.5 hectares, or 0.2%, are rights to apply for mining concession and (v) 166,045.6 hectares, or 26.9%, remain as exploration authorization applications and are presently under initial geological reconnaissance.

The term of each of the mining concessions mentioned above is valid for the life of mine, evaluated pursuant to the specific mining project. All our mineral rights in Brazil are in good standing. Maintaining our mineral rights in Brazil in good standing involves: (i) maintaining production on the mineral concessions and/or satisfying the ANM's requirements if production has been suspended; (ii) developing exploration work and paying an annual property fee for the exploration authorizations; and (iii) complying with all the legal requirements, including not only as to mining, but also as to environmental and real estate requirements applicable to claiming a property with respect to exploration authorization applications.

Failure to pay the applicable fees for any given year will result in us forfeiting our mineral rights. As of December 31, 2024, we have paid all applicable royalties, taxes and fees on our mineral rights. Our mineral rights in Brazil that are not currently undergoing exploration or production will not expire unless we fail to timely pay the applicable royalties, taxes and fees, as well as the applicable penalties and meet the ANM's and environmental authorities' requirements, as applicable. See "Information on the Company—Regulatory matters—Brazilian regulatory framework—Royalties and other taxes on mining activities."

The following table summarizes our mineral rights in Brazil.

		Mineral Rights	
	Mine/Project	**Titles**	**Area (hectares)**
Mines	Vazante	39	20,044.5
	Aripuanã	13	41,161.1
Prospective Projects	Various	93	556,552.1
Total		**145**	**617,757.7**

Exploration authorization and mining concession regimes

Exploration authorizations grant the rights to conduct exploration activities for a period from one to four years, which may be renewable for an additional period (and potentially additional renewals on a case-by-case basis). Exploration authorizations are granted on a first come, first serve basis, and the ANM will only grant one exploration authorization for any given area. Mining concessions are currently valid until the mineral deposit reserves are exhausted. Mining concessions may be transferred to eligible third parties with the ANM's prior approval, pursuant to applicable legislation.

Decommissioning

In Brazil, enterprises dedicated to the exploitation of mineral resources shall submit a recovery plan to receive a mining concession. Accordingly, the environmental recovery of the degraded areas caused by mineral exploitation activities shall have been planned since their conception. According to Minas Gerais law, entrepreneurs must also submit to the environmental agency an environmental plan for closing two years before the planned mine closing.

On October 1, 2020, the Brazilian federal government issued law No. 14,066 which, among other provisions, amended the Brazilian Mining Code in order to explicitly state that all mine closure plans must be approved by the ANM as well as the environmental licensing agency. In addition, on April 30, 2021, the ANM published new rules regarding the Mine Closure Plan – PFM. We have been complying with legal requirements regarding mine closure plans and continue to comply with all regulatory and environmental requirements.

Royalties and other taxes on mining activities

Revenues from mining activities are subject to the Brazilian mining royalty, *Compensação Financeira pela Exploração de Recursos Minerais* ("CFEM"), which is paid to the ANM. CFEM is a monthly royalty based on gross revenue, excluding taxes on the sale of minerals. When the produced minerals are used in its internal industrial processes, CFEM is determined based on the costs incurred to produce them. CFEM is determined by a reference price of the respective mineral to be defined by the ANM. The applicable rate varies according to the mineral product (currently 2.0% for zinc, lead, copper and silver). In addition, we are required to make certain fee payments for exploration authorizations known as the Annual Fee per Hectare (*Taxa I por Hectare*). There is also a monthly inspection fee related to the transfer and commercialization of certain minerals in some Brazilian states, such as Minas Gerais and Mato Grosso, where the concessions are located.

In 2019, the State of Minas Gerais ratified a tax benefit that suspended the VAT on the commercialization of several products, including metallic zinc for companies incorporated in the State. There are no formal requirements to obtain the benefit (such as demonstrating that the legal entity is the company actually industrializing the zinc), however the existence of the tax benefit has resulted in increased scrutiny by the tax authorities in the State. We are currently collaborating with all the requested information by the tax authorities in this process of reviewing the commercialization of our products throughout the zinc value chain. In case the buyer does not comply with the VAT deferred regulation, Nexa may be subject to (i) subsidiary liability (pursuant to art. 57, IN, RICMS/MG); or (ii) joint liability (pursuant to art. 124, I of National Tax Code and art. 56, XI, RICMS/MG). For additional information, see "Risk Factors—Changes in tax laws may increase our tax burden and, as a result, could adversely affect our business, financial position and results of operations."

In December 2022, a new tax on mining operations (the "TRFM") was approved in the State of Mato Grosso, where the Aripuanã project is located. The regulation came into force in April 2023. The Brazilian Supreme Court held that the tax was unconstitutional in December 2023. However, the state of Mato Grosso approved a new tax to replace the tax that the Court deemed unconstitutional. The new TFRM is collected according to the nature of the extracted ore. Similar taxes on mining operations were implemented in other Brazilian states, such as the state of Minas Gerais.

Environmental regulations

We are subject to several environmental regulations related to, among other matters, water resources, caves, waste management, contaminated areas, areas of permanent preservation, conservation of protected areas and environmental recovery policies. For more information on environmental recovery policies that Nexa is subject to, see "Information on the Company—Mining operations—Tailings disposal." Specifically, we have taken the following actions regarding contaminated areas and areas of permanent preservation:

Contaminated areas. We have carried out environmental assessments on our operation units to verify the existence of contamination in groundwater and soil. The assessments prepared for the Brazilian units identified deviations in soil, groundwater and surface water quality standards. We are committed to improving the management of areas identified as contaminated. For most of the identified deviations, we developed a robust remediation plan in order to comply with all legal requirements. We recorded provisions in our consolidated financial statements in respect of any potential liabilities associated with these deviations from applicable standards. See "Operating and financial review and prospects—Overview—Key factors affecting our business and results of operations—Environmental expenses." We continue to conduct similar assessments with respect to the Peruvian operating units.

Areas of permanent preservation. Permanent Preservation Areas (*Áreas de Preservação Permanente*, or APP) are areas that, because of their importance for preserving water resources, geological stability, biodiversity protection and erosion control, receive special legal protection. The existence of such protected areas within a property, whether in urban or rural locations, may cause restrictions to the performance of the intended activities. Interference or removal of APP vegetation is only allowed in cases of public utility (such as mining activities), social interest or low environmental impact, if there is a prior authorization from the applicable environmental authorities. Most of our properties in the state of Minas Gerais interfere in APPs in some way, however all are authorized by environmental agencies. For such properties, we have either already established an advanced ongoing regularization process or have started the process for other properties. The regularization process includes the implementation of rigid controls over the properties.

Tailings dams. In December 2023, the State of Minas Gerais published State Decree No. 48,747/2023, regulating the environmental recovery policies that companies are required to have in place in the event of an accident or deactivation of a dam, pursuant to a prior state law passed in 2019. Under State Decree No. 48,747/2023, any dams that meet the requirements established under the 2019 Dam Safety Policy law must have an environmental guarantee policy in place. During the second quarter of 2024, the Decree was amended to modify, among other provisions, the deadline for mining companies to indicate the type(s) of guarantee method(s) they would use. The Company complied with this requirement in September 2024. The amendment also established that mining companies must present 50% of the chosen guarantees by the end of 2024. As of December 31, 2024, Nexa estimates that it will require US$19.1 million to cover the applicable dams under this policy. The guarantee can be made by one of the following methods: (i) cash deposit; (ii) CDB; (iii) bank guarantee; or (iv) guarantee insurance. The Company, on December 27, 2024, filed the environmental recovery proposal, contracting for 50% of the guarantee by December 31, 2024, totaling US$9.6 million for all its structures in Minas Gerais through bank guarantees. For 2025, subject to the approval of the environmental agency, an additional 25% must be contracted for by December 31, 2025, and 25% by December 31, 2026, following the schedule previously established by the Decree and the company expects to comply with this requirement. However, on December 31, 2024, a new Decree was published, further amending the wording of Decree 48,747/2023. This amendment stipulated that the deadline for submitting guarantees would only begin after the environmental agency approves the proposal. Since the new Decree was published after Nexa submitted its guarantees, it will be necessary to await the environmental agency's analysis and address any adjustments required under the revised wording.

Additionally, a new resolution was published in Brazil by the State of Minas Gerais (GMG Resolution No. 83), which establishes the minimum requirements for the preparation, analysis and approval of the Second Section of the Dam Emergency Action Plan (*PAE*) in accordance with the powers of the state Civil Protection and Defense ("Proteção e Defesa Civil") agency, as per State Decree No. 48,078, of November 5, 2020. The main changes include the implementation of geotechnical monitoring rooms and changes in siren sounds, which are currently in the implementation phase at the Três Marias and Juiz de Fora units. For more information on GMG Resolution No. 83 and State Decree No. 48,747/2023 and its impact on Nexa, see "Information on the Company—Mining operations—Tailings disposal" and Notes 27 and 32(b) of our consolidated financial statements.

Environmental licenses

The Brazilian Federal Constitution grants federal, state and municipal governments the authority to issue environmental protection laws and to publish regulations based on those laws. While the Brazilian federal government has authority to issue environmental regulations setting general standards for environmental protection, state governments have the authority to issue stricter environmental regulations. Municipal governments may only issue regulations regarding matters of local interest or as a supplement to federal or state laws.

Under Brazilian law, the construction, installation, expansion and operation of any establishment or activity that uses environmental resources, or is deemed to be actually or potentially polluting, as well as those capable of causing any kind of environmental degradation, is subject to a prior licensing process.

Notably, in addition to the general guidelines set by the Brazilian federal government, each state is legally competent to promulgate specific regulations governing environmental licensing procedures under its jurisdiction. Depending on the level of environmental impact caused by the exploration/exploitation activities, the procedures for obtaining an environmental license may require assessment of the environmental impact and public hearings, which may considerably increase the complexity and duration of the licensing process and expose the exploration/exploitation activities to potential legal claims.

Environmental liability

Environmental liability may be determined by civil, administrative and criminal courts, with the application of administrative and criminal sanctions, in addition to the obligation to redress the damages caused. All our operating units, except for Cerro Lindo and Aripuanã, have obtained certification under the ISO 14001 standard.

Regulation of other activities

In addition to mining and environmental regulation, we must abide by regulations related to, among other things, the use of explosives and fuel storage. We are also subject to more general legislation on labor, occupational health and safety, and support of communities near mines, among other matters.

Peruvian regulatory framework

Mining rights and regulation of mining activities

In Peru, surface land is owned by private landowners, while the government retains ownership of all subsurface land and mineral resources. The Natural Resources chapter of the Peruvian Constitution, enacted in 1993, states that mineral resources are the property of the Nation, and the Peruvian State is sovereign in their administration. The Peruvian government may establish by law the conditions for granting exploitation rights and titles to individuals and legal entities.

The General Mining Law (*Texto Único Ordenado de la Ley General de Minería*) is the primary law governing both metallic and non-metallic mining activities in Peru and is complemented by other regulations approved by the MINEM. Under the General Mining Law, mining activities such as exploration, exploitation, mining labor, beneficiation and mining transport (except sampling, prospecting and trade) are carried out exclusively by means of concessions granted by the Peruvian State. The *Dirección General de Minería* ("DGM") is the regulatory body of the MINEM responsible for proposing and evaluating regulations in the Peruvian mining sector as well as authorizing the commencement of mining activities in Peru.

A mining concession allows its holder to carry out exploration and exploitation activities within the area established in the respective concession title, provided that prior to the beginning of any mining activity, such concession title is granted by the *Instituto Geológico, Minero y Metalúrgico* ("INGEMMET") and other applicable administrative authorizations are obtained (*e.g.*, mining, environmental, use of water, use of explosives, impact on indigenous communities, etc.). A concession provides its titleholder with the exclusive right to undertake mineral exploration and mining activity within a determined area but does not grant the titleholder the right to own the surface land where the concession is located. Therefore, for the holder of a mining concession to develop exploration and/or exploitation works, the latter must purchase the corresponding surface land from the owners, reach an agreement for its temporary use or obtain the imposition of a legal easement by the MINEM, which is rarely granted. There are special proceedings for purchasing or acquiring temporary rights over barren lands owned by the state.

Mining concessions are irrevocable, provided the holder of a mining concession complies with the obligations set forth in the General Mining Law and applicable regulations. Such concessions have an indefinite term, subject to payment of an annual validity fee per hectare granted and achievement of minimum annual production for each hectare, or payment of a production penalty when applicable. Failure to achieve annual production targets will result in a penalty. Failure to pay annual validity fees or production penalties for two consecutive years in any mining concession will result in the cancellation of such mining concession. Failure to satisfy minimum annual production thresholds for a specified period (currently thirty years beginning the year after the mining concessions were granted for mining concessions granted after October 10, 2008, and thirty years beginning on January 1, 2009, for mining concessions granted before October 10, 2008) could result in cancellation of the mining concessions. In September 2024, Congress began a revision process of an amendment to the General Mining Law regarding an increase of the annual validity fees from US$3 to US$5 as well as a reduction of the term to satisfy minimum annual production from thirty years to twenty years. Although the revision process has not progressed to date, if the amendment is adopted, such amendment could have a material impact on our business and projects.

Additionally, on June 26, 2024, Supreme Decree No. 011-2024-EM was enacted, allowing any holder of a beneficiation concession (*concesión de beneficio*) to have a tolerance margin of up to 10% additional to the authorized daily installed capacity of mineral processing, without the need to apply to the corresponding beneficiation concession modification procedure. It should be noted that the additional processing capacity must not result from the installation of new equipment, new auxiliary facilities, repowering or modification of the operating parameters of the equipment, process improvements, among other changes that require the prior approval of the amendment of the beneficiation concession.

Summary of Peruvian concessions

In Peru, we hold, through Nexa Peru and its subsidiaries, 541 mining and exploration concessions, which cover a total area of 221,769.3 hectares and 9 mineral claims totaling 6,280.6 hectares. Of our mines in Peru, the Atacocha mine property includes 147 mining concessions that cover an area of 2,872.5 hectares and one beneficiation concession, the El Porvenir mine property includes 25 mining concessions that cover an area of 4,846.7 hectares and one beneficiation concession, the Cerro Lindo mine has 68 mining concessions that cover an area of 43,927.8 hectares and one beneficiation concession. In addition, we have 95 mineral rights concessions for greenfield projects in Peru that cover a total area of 34,490.0 hectares. Our prospective projects include 206 mining concessions that cover an area of 135,632.3 hectares.

All our mining and processing concessions in Peru are in good standing. Maintaining our concessions in Peru in good standing involves, among other requirements, (i) paying the annual validity fee and production penalties (when applicable) for mining concessions with no production or with no effective exploration or (ii) paying the annual validity fee and complying with minimum production or investment requirements established in mining law.

Failure to pay such validity fees or production penalties (when applicable) for two consecutive years results in the cancellation of the respective mining concessions or beneficiation concessions granted by the Peruvian government. Our mining and beneficiation concessions will not expire unless we do not timely comply in paying these fees or with the minimum production or investment required by law in respect of such rights and depending on the applicable regime.

The following table summarizes our mining concessions in Peru:

		Concessions	
	Mine/Project	**Titles**	**Area (hectares)**
Mines	Atacocha	147	2,872.5
	El Porvenir	25	4,846.7
	Cerro Lindo	68	43,927.8
Greenfield Projects	Florida Canyon Zinc	11	8,700.0
	Hilarión	48	9,374.0
	Magistral	36	16,416.0
Prospective Projects	Various	206	135,632.3
Total		**541**	**221,769.3**

Exploration and authorization and mining concession regimes

Mining concessions are granted for an indefinite term, though dependent on the fulfillment of certain legal obligations. The commencement and re-commencement of exploration and/or exploitation mining activities are subject to the prior obtainment of an authorization for the commencement of activities before the DGM. Such authorizations could be subject to a prior consultation procedure with indigenous communities, carried out by MINEM, if mining activities were to impact said communities' collective rights and territories as determined by the Ministry of Culture.

As of December 31, 2024, we primarily owned metallic mining concessions with respect to zinc, copper, silver and lead. Our mining rights and concessions are in full force and effect under applicable Peruvian laws. We believe that we comply in all material respects with the terms and requirements applicable to our mining rights and concessions.

Decommissioning

Title holders of mining exploitation and beneficiation activities, and, in some cases, of exploration activities require the prior approval of a mine closure plan, which includes the environmental rehabilitation, restoration and remediation measures that shall be executed along with the mining operations and until its closure. Once the corresponding mine closure plan is approved, a guarantee (usually a bank performance bond) must be granted in favor of the MINEM to back up the environmental costs associated with the execution of the mine closure plan. Mining exploitation and beneficiation activities may only be initiated once the mine closure plan is approved, and the corresponding environmental guarantee is duly submitted before the competent authority. The referred guarantee is renewed yearly. If the titleholder of an ongoing mining operation fails to comply with this obligation, the MINEM is entitled to suspend the execution of such mining operation. For additional information, see "Risk Factors—Political, economic, social and regulatory risks—Our mineral rights may be terminated or not renewed by governmental authorities".

Royalties and other taxes on mining activities

Holders of mining concessions are required to pay a mining royalty (*regalía minera*) to the Peruvian government for the exploitation of metallic and non-metallic resources. The amount of the royalty is payable on a quarterly basis and is equal to the greater of (i) an amount determined in accordance with a statutory scale of marginal tax rates from 1.0% to 12.0% based on a company operating income margin and applied to that company's operating income and (ii) 1.0% of a company's sales, in each case during the applicable quarter. We are also required to pay annual fees (*derecho de vigencia*) for our mining concessions and, in some cases, mining production penalties for not timely reaching the minimum production levels set by Peruvian mining law.

Holders of mining concessions are also required to pay a Special Mining Tax (*Impuesto Especial a la Minería*) to the Peruvian government. The Special Mining Tax is payable on a quarterly basis and is calculated based on the operating income derived exclusively from the sale of metallic resources, with marginal rates between 2.0% and 8.4%.

Holders of mining concessions that are subject to administrative legal stability (in force as of the effective date) under an Agreement of Guarantees and Measures for Investment Protection entered into with the MINEM shall enter into an agreement with the Peruvian government for the payment of a Special Charge on Mining (*Gravamen Especial a la Minería*, or "GEM"). The GEM is payable on a quarterly basis and is calculated based on the operating income derived exclusively from the sale of metallic resources, with marginal rates between 4.00% and 13.12%.

Tax stability agreements

In 2002, Nexa Peru entered into an Agreement of Guarantees and Measures for Investment Protection with the MINEM with respect to our Cerro Lindo unit. Pursuant to section 9 of said Agreement, until December 31, 2021, certain guarantees and benefits were available with respect to operations of the Cerro Lindo unit including, among others, free commercialization of the products proceeding from such unit, free disposition of the currencies generated from the export of the products proceeding from such unit, the right to use the global depreciation rate applicable on the fixed assets relating to the Cerro Lindo unit up to 20.0% per year, the right to keep the accounting corresponding to the Cerro Lindo unit in U.S. dollars, and tax stability. The tax stability agreement expired on December 31, 2021. Since 2022, Nexa Peru is required to pay taxes at statutory rates to the Peruvian government. As of the date of this report, there is an ongoing dispute between Nexa and Peruvian tax authorities in respect of the applicability of such agreement. For more information, see “Risk Factors—Changes in tax laws may increase our tax burden and, as a result, could adversely affect our business, financial position and results of operations” and “Additional Information—Legal Proceedings—Other legal proceedings.”

Municipal permits

Under the General Mining Law, all Peruvian mines located in rural areas such as Cerro Lindo, Atacocha, El Porvenir and Chapi (which was sold on December 23, 2024) are exempted from paying municipal taxes and obtaining municipal permits.

Environmental regulations

The development of economic activities in Peruvian territory, such as those related to the mining industry, are subject to a broad range of general environmental laws and regulations related to the generation, storage, handling, use, disposal and transportation of hazardous and controlled materials; the emission and discharge of hazardous materials into the ground, air or water; and the protection of migratory birds and endangered and threatened species and plants. These regulations also set environmental quality standards for noise, water, air and soil, which shall be considered for the preparation, assessment and approval of the corresponding environmental management instrument, granted by the National Service for Environmental Certification of Sustainable Investments (“SENACE”) for exploitation and beneficiation activities, or the MINEM for exploration activities.

The Ministry of Environment and other administrative entities, such as the *Dirección General de Asuntos Ambientales Mineros* (“DGAAM”), have the authority to enact regulations related to environmental matters. Additionally, the Environmental Supervision Agency (*Organismo de Evaluación y Fiscalización Ambiental*, or “OEFA”), is the competent authority in charge of supervising and imposing sanctions on mining companies upon non-compliance of applicable environmental legislation. In addition, there are other competent governmental agencies or authorities on specific environmental matters such as water, forestry resources, protected natural areas and aquatic environment that regulate, authorize and supervise environmental compliance and liability.

On November 23, 2023, Supreme Decree No. 028-2023-EM was enacted, amending the Regulations for Environmental Protection in Mining Exploration Activities in order to allow the simultaneous processing of various enabling permits related to water resources, such as water use authorizations or discharge permits, alongside the evaluation procedure for the respective environmental management instrument. This is expected to result in expedited processing of relevant permits for exploration projects. Additionally, on November 25, 2023, Supreme Decree No. 031-2023-EM was enacted, approving the law that specifies the mandatory environmental protection measures in the transportation and final disposal of tailings and the corresponding environmental management instruments for mining operations.

A revision process was initiated by the Peruvian Congress of a law to prohibit economic activities in the headwaters of basins, which are considered vulnerable areas that require protection and mitigation measures. However, the revision process lost momentum and has shown no sign of progress to date. If adopted, this law could have a material impact on our projects in case any new projects were to occur in headwaters of basins.

In December 2023, the Peruvian government published Supreme Decree No. 034-2023-EM, which amended the Occupational Health and Safety in Mining regulation by adding a chapter on management and safety requirements for waste and tailings disposal facilities. Among other requirements, the Decree addresses the installation of emergency warning systems for dams. We are currently adapting our operations to comply with the new requirements of the decree.

In addition, on May 3, 2024, Supreme Decree No. 004-2024-MINAM was enacted, amending Article 51 of the Regulation of the Law of the National Environmental Impact Assessment System, by simplifying and streamlining the environmental impact assessment processes, focusing on the reception and management of technical opinions by other authorities. On August 8, 2024, Law 32106 was passed. This law regulates the declaration of an environmental emergency over a specific geographic area in the event of a sudden and significant occurrence that affects environmental quality or ecosystems. The law states that the applicable environmental authority, together with the responsible party, will have to implement actions to contain, control, and reduce the environmental impact.

Environmental permit regularization processes

Supreme Decree 040-2014-EM provided special procedures allowing us to acquire environmental and operational permits for mining operations and to regularize the mining of certain areas within the Cerro Lindo and Atacocha mines. While these regularization procedures were successfully completed, compliance with these special procedures does not exempt us from potential administrative sanctions by OEFA for the implementation of certain mining components without obtaining the corresponding environmental permits. Similarly, Supreme Decree 013-2019-EM allowed for further regularization procedures to be carried out as of January 6, 2020, which will also allow us to acquire environmental and operational permits for infrastructure and mining areas in the Cerro Lindo, Atacocha, El Porvenir and Chapi (which was sold on December 23, 2024) mines. The regularization procedure for Cerro Lindo was denied due to an unfavorable opinion by the National Water Authority, yet proper procedure was not followed for which judicial measures to appeal the denial were taken and are currently in course. Atacocha's procedure was carried out to completion while the El Porvenir regularization procedure is still underway. The Chapi mine (which was sold on December 23, 2024) procedure did not fall through and the areas subject to the procedure must follow the standard mine closure regulations.

Supreme Decree 014-2024-EM allowed a new opportunity for regularization for environmental certifications to take place, for which an initial communication to MINEM and OEFA had to be made by December 13, 2024. The Cerro Lindo, Atacocha, El Porvenir, Chapi (which was sold on December 23, 2024) and Cajamarquilla operations invoked said procedure on time and will have to present technical information by September 2025. Likewise, OEFA may impose sanctions for environmental non-compliance.

Regulation of other activities

In addition to mining and environmental regulation, we must abide by regulations related to, among other activities, the use of explosives, fuel storage, controlled substances, telecommunications, archeological remains, and energy concessions. We are also subject to more general legislation on labor, occupational health and safety, and indigenous communities, among others. With respect to labor regulations, the Peruvian government enacted Supreme Decree 001-2022-TR in February 2022, establishing a series of measures to eliminate the outsourcing of a company's "core business" activities, which are defined as the main activities of a company, such as any activities that differentiate and identify it within the market, generate the most income for the company or add the most value for the company's customers. In July 2023, the law was deemed to be unconstitutional because it was determined to be an unenforceable bureaucratic barrier by INDECOPI and therefore is not expected to have any material impact on Nexa. In addition, a lawsuit was initiated by Nexa which is seeking to declare the unconstitutionality of the aforementioned law, the lawsuit is at the moment suspended and does not currently generate any material effects for Nexa. For additional information, see "Risk Factors—Operational risks—We may be liable for certain payments to individuals employed by third-party contractors" and "Risk Factors—Operational risks—The nature of our business includes risks related to litigation and administrative proceedings that could materially and adversely affect our business and financial performance in the event of unfavorable rulings."

Regarding occupational health and safety regulations, on December 30, 2023, Supreme Decree No. 034-2023-EM was enacted, amending the Regulation of Occupational Safety and Health in Mining approved by Supreme Decree No. 024-2016-EM. Among the key modifications made are the inclusion of parameters for the development of geo-mechanical, hydrogeological, seismicity, and stability studies; the elaboration of a monthly report on geotechnical supervision of tailings deposits, pads, leaching heaps, and waste rock deposits; changes regarding which entity should receive the preliminary report on hazardous incidents or fatal accidents; as well as the addition of a chapter on tailings deposit management which includes parameters for the development of a geotechnical monitoring and control program, a risk analysis and assessment, a management plan, among others. We began adapting and complying with the new obligations incorporated by the amendment in 2024.

In addition, on September 28, 2024, Legislative Decree No. 1680, which establishes the "Archaeological Surface Diagnosis" was enacted. The decree allows for the certification of the non-existence of archaeological remains through an archaeologist duly authorized and registered with the Ministry of Culture, without the need to process the approval of a Certificate of Non-Existence of Archaeological Remains ("CIRA").

II. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

OVERVIEW

Executive summary

Below are our highlights in 2024:

- **Operational performance.** In 2024, we achieved net revenues of US$2,766.5 million, a 7.5% increase from 2023, mainly driven by higher LME metal prices (except for lead), higher copper and lead sales volumes and slightly higher smelting sales volume. See "Overview—Results of operations—Net revenues" for more information. In 2024, we also reported a net loss of US$187.4 million, a 35.8% decrease as compared to 2023, primarily due to an increase in operating income, as a result of the aforementioned reasons, in addition to lower mineral exploration and project evaluation expenses, and a reduced impairment loss on long-lived assets, partially offset by the negative impact of foreign exchange losses in our financial results.

- **Aripuanã ramp-up.** Aripuanã's ramp-up activities began in 2022, and the mine remained in the ramp-up phase throughout 2023. At the end of June 2024, the mine ended its ramp-up phase and transitioned to an ongoing operation. Additionally, we continued to improve metal recovery and concentrate quality and grades, aiming to achieve a stable operation. In the fourth quarter of 2024, we achieved an average of 67.0% capacity utilization level reflecting the impact of scheduled maintenance activities, tailings filter constraints, and heavy rainfall during the period (averaging 20% above the levels of the past two years). In 2024, we also implemented several initiatives related to drainage, wetland enhancement, and dam basin cleanliness that we expect will achieve better control over key operational and environmental processes as we entered the rainfall season. In 2025, we remain focused on driving continuous operational improvements, particularly in addressing the limitations of the tailings filter circuit. While capacity has significantly increased since production startup, challenges persist due to current constraints. To resolve this, we acquired a fourth tailings filter, which we expect to be delivered and installed during the second half of 2025, with commissioning expected for the first quarter of 2026. This upgrade is expected to further enhance utilization capacity, ensuring optimal performance and in line with our commitment to operational excellence.

- **Divestments.** On July 1, 2024, we sold the Morro Agudo Complex in Minas Gerais, Brazil for R$80 million (approximately US$16 million). Additionally, in the third quarter of 2024, we entered into agreements to sell our non-operational Peruvian subsidiary, Minera Pampa de Cobre S.A.C. (owner of the Chapi copper mine) and Compañía Minera Cerro Colorado S.A.C. (owner of the greenfield Pukaqaqa Project).

- **Exploration activities.** In 2024, we continued to focus our investments on projects around the mines we operate. We believe that our exploration program, coupled with our disciplined approach to project evaluation, will contribute to replacing and increasing mineral reserves and resources of our current assets and define the materiality of exploration stage projects. We will continue to seek new regional targets to identify prospective areas and determine the materiality of new projects.

- **Projects.** In terms of brownfield projects, our objective is to extend the LOM of our assets. As such, most of the mineral exploration budget in 2024 was allocated to drilling activities in these projects, with emphasis on Cerro Lindo, Vazante and Aripuanã. In terms of greenfield projects, we are continuously working to define the expansion of known mineralization and identify new mineralized zones in regional prospective trends, with a particular emphasis on copper targets in regional programs.

- **Production and sales.** In 2024, we achieved a 3.2% increase in our zinc equivalent (mine production), from 627.0 thousand tonnes in 2023 to 646.9 thousand tonnes in 2024, mainly driven by the increase in production for all metals (except for zinc), with copper and lead production increasing by 6.9% and 6.3%, respectively, mainly due to the increase in production at Cerro Lindo and Aripuanã. Our total metal sales (metallic zinc and zinc oxide) increased by 0.2% in our smelting operations, from 589.8 thousand tonnes in 2023 to 591.3 thousand tonnes in 2024.

- **CAPEX.** Our capital expenditures totaled US$276.8 million in 2024, a 10.4% decrease compared to 2023, mainly due to the decrease in sustaining investments as a result of favorable foreign exchange fluctuations, as well as continued efforts and initiatives to optimize capital allocation. In 2024, 96.8% of our capital expenditures was allocated to sustaining investments, including those in tailings storage facilities.

In 2025, zinc production is expected to slightly increase compared to 2024, primarily due to higher output from Aripuanã and El Porvenir. This increase will be partially offset by lower production volumes at Cerro Lindo and Vazante, in line with the updated mine sequencing plan, which anticipates slightly lower grades. Copper production is anticipated to decline by around 10% compared to 2024, primarily due to lower grades in prepared areas, in line with the current mine sequencing plans. In 2025, consolidated lead production is forecasted to decrease by around 7%, while silver production is expected to slightly decrease, both compared to 2024.

Our total metal sales are expected to decrease by around 3% in 2025 compared to 2024, primarily due to production adjustments associated with the forecasted lower treatment charge ("TC") levels for 2025. This strategy aims at preserving margins in the smelting segment and is expected to result in slightly lower metal sales in the period. Additionally, remediation actions following the fire incident at the Juiz de Fora wet electro-filters at the end of December 2024 are expected to be completed by the end of 2025.

In 2025, consolidated run-of-mine mining costs are expected to increase by around 16% year-over-year, primarily due to the inclusion of Aripuanã's run-of-mine mining costs estimates for the first time, along with higher costs at Cerro Lindo and Vazante, driven mainly by lower production volumes. Consolidated smelting cash costs are projected to increase in 2025 compared to 2024. This is mainly attributed to production adjustments driven by lower TC levels, which are intended to preserve margins. This strategy is expected to result in slightly lower metal sales in the period.

Key factors affecting our business and results of operations

Reporting segments

We have two reporting segments, mining and smelting. In 2024, 100% of our zinc mining production was processed by our own smelters. Additionally, a major portion of the zinc raw material consumed by our smelting operations, representing approximately 51.9% of the total zinc raw material consumption (excluding oxide), came from our own mines. As a result, the revenues of our mining segment include sales to the smelting segment, and the costs of our smelting segment include purchases from the mining segment. We calculate internal transfer prices from our mines to the smelters on an arm's length basis to evaluate the performance of our mining and smelting segments individually. These revenues and costs are eliminated in our consolidated financial statements.

The profitability of our mining segment depends primarily on world prices for the metals we produce, and on our costs to produce concentrates. It is also affected by treatment charges, which represent the cost of further processing applied to reduce the price of concentrate. Other factors affecting pricing are discussed below.

The profitability of our smelting segment does not depend directly on market prices for metals as these prices have a similar impact on both our revenues and costs. Profitability is mainly affected by treatment charges (which reduce our costs to acquire concentrates), by the premium over the market price of metals that we can charge for our products, the operating costs of our smelters and the by-products we sell, as well as their efficiency in recovering the metal content of the concentrates we purchase.

Our segments are reported in accordance with IFRS 8 - Operating Segments, and the information is presented to the Chief Executive Officer, who is our Chief Operating Decision Maker (CODM) in accordance with IFRS. Our segment results are derived from the accounting records and are adjusted for reallocations between segments, depreciation and amortization and miscellaneous adjustments, if any, for the period. For more information, see "Operating and Financial Review and Prospects—Results of Operations—Non-IFRS Accounting Standards measures and reconciliation" in this report. See also Note 2 to our consolidated financial statements.

Metal prices

Our financial performance is significantly affected by the market prices of zinc, copper and lead, and, to a lesser extent, silver, gold, and other by-products of our smelting operations. Metal prices have historically been subject to wide fluctuations and are affected by numerous factors beyond our control, including the impact of these factors on industries that represent the first-uses and end-uses of our products. These factors, which affect each metal to varying degrees, include international economic and political conditions, levels of supply and demand, the availability and cost of substitutes, inventory levels and, to a lesser degree, inventory carrying costs and currency exchange rates. In addition, market prices have occasionally been subject to rapid short-term changes due to speculative activities.

The market prices for zinc, copper and lead are typically quoted as the daily cash seller and settlement price established by the LME. LME zinc prices are influenced by global supply and demand for both concentrate and metallic zinc. The supply of metallic zinc depends on the amount of zinc concentrates and secondary feed materials produced as well as the availability of smelting capacity to convert them into refined metal. This similarly applies to copper and lead.

The table below sets forth the average published market prices for the metals and periods indicated:

	For the Year Ended December 31,			
Average Market	**2024**		**2023**	
Prices of Base Metals	**(US$/tonne)**	**(US¢/lb)**	**(US$/tonne)**	**(US¢/lb)**
Zinc (LME)	2,779.02	126.05	2,646.57	120.05
Copper (LME)	9,146.79	414.89	8,477.77	384.55
Lead (LME)	2,072.67	94.01	2,138.18	96.99

	For the Year Ended December 31,	
Average Market Prices of Precious Metals	**2024**	**2023**
	(in US$/oz)	
Silver (LBMA)	28.27	23.35
Gold (Fix)	2,386.20	1,940.54

The key drivers and recent trends of each of the metals that we produce are discussed below.

Zinc

Zinc is a major material for the construction, transport and infrastructure industries, which represent approximately 50%, 21% and 16% of zinc end-use, respectively, according to Wood Mackenzie. The annual average price of zinc on the LME for the year ended December 31, 2024, was 5.0% higher compared to the year-ended December 31, 2023. In 2024, the main factor contributing to the increase in the price of zinc compared to 2023 was favorable macroeconomic conditions supported by industrial production growth and fiscal and monetary policies aimed to stimulate consumption.

On the supply side, 2024 was marked by smelter closures due to increased market concentration, following production reduction or the shutdown of mines in the second half of 2023. Spot treatment charges for imported concentrates in China reached record lows in 2024 and decreased from US$85 per tonne in January 2024 to US$25 per tonne in December 2024, as reported by Wood Mackenzie. Long-term contract treatment charges decreased from US$274 per tonne in 2023 to US$165 per tonne in 2024.

According to Wood Mackenzie's December 2024 report, the zinc metal market closed 2024 with a deficit of 391 thousand tonnes driven by metal production of 13.2 million tonnes and consumption of 13.6 million tonnes (1.5% higher than in 2023). Mine supply decreased 1.8% in 2024 compared with 2023, totaling of 12.1 million tonnes, leading to a concentrate surplus of 100 thousand tonnes.

Refined zinc supply decreased 4% in 2024, mainly due to lower production capacity at smelters as a result of record low TCs.

Copper

Copper is used in building construction, power generation and transmission, electronic product manufacturing and the production of industrial machinery and transportation vehicles. The annual average price of copper on the LME for the year ended December 31, 2024, was 7.9% higher compared to the year-ended December 31, 2023. This increase was mainly driven by higher high demand in the energy trading market, which remains a key driver of copper consumption, as well as tight supply conditions. According to Wood Mackenzie's December 2024 report, the copper metal market remained balanced in 2024, closing with a surplus of only 45 thousand tonnes. Total mine production, refined production and consumption increased 1.2%, 3.6% and 3.2% compared to 2023, respectively.

Lead

Lead is used in batteries for energy storage and in other products such as ammunition, oxides in glass and ceramics, casting metals and sheet lead. The annual average price of lead on the LME for the year ended December 31, 2024 was 3.1% lower than compared to the year-ended December 31, 2023. This decrease was driven by supply chain disruptions, a well-established secondary market, and the increasing substitution of lead with alternative materials, such as lithium-ion batteries, in major end uses.

Silver

Silver is considered a precious metal and is generally seen as a store of value, so its price tends to be resilient in times of economic uncertainty. In addition, its uses in electronics and solar cells have added to the already broad range of applications for silver in currency, jewelry, and silverware. The annual average LBMA silver price for the year ended December 31, 2024, was 21.1% higher than compared to the year-ended December 31, 2023. Silver prices hit the highest level of the year on October 24, 2024, at US$34.51 per ounce, which was 32.6% above the highest point of the previous year reached on April 14, 2023.

Production volumes, ore grade and metal mix

Our production volumes, the ore grade from our mines and the mix of metals in our product portfolio affect our business performance. For more details, see "Information on the Company—Mining operations." Our zinc production decreased by 1.8%, while copper and lead increased by 6.9%, and 6.3%, respectively, in 2024. Production of silver and gold contained in concentrates increased by 13.5% and 30.4%, respectively, in 2024.

Commercial terms

We sell our concentrates and metallic zinc and zinc oxide products mostly through supply contracts with terms between one and two years, and only a small portion is sold on the spot market. The agreements with our customers include customary international commercial terms, such as cost, insurance and freight, or CIF; free on board, or FOB; free carrier, or FCA; and cost and freight, or CFR; pursuant to Incoterms 2010/2020, as published by the International Chamber of Commerce. For concentrates, revenues are recorded at provisional prices and, typically, an adjustment is made after delivery, based on the pricing terms provided for under the relevant contract.

Sales prices for our products are based on LME and/or LBMA quotations. Concentrates are typically sold at the LME price reference minus a discount (treatment charge for zinc and lead; treatment charge and refining charge for copper). Metallic zinc and zinc oxide are typically sold at the LME quotation averaged during a quotation period, such as the month after shipment, the month prior to shipment or another agreed period, plus a negotiable premium that varies based on quality, shape, origin, and delivery terms , as well as the market where the metal will be sold. In 2024, 51.1% of the total zinc raw material consumption in our smelters was produced by our mines and 48.9% was purchased from third parties or obtained from secondary raw materials (including oxide). We buy zinc concentrates from different suppliers in the market to meet our raw material requirements. We sell all our copper and lead concentrates production to metal producers and international traders, on international market terms.

Our sales of metallic zinc are highly diversified. Our customer base is composed mainly of end users across various industries, including transport, construction, infrastructure, consumer goods and industrial machinery. In 2024, 72.6% of our total sales were to customers in the continuous galvanizing, general galvanizing, die casting, transformers and alloy segments, and 27.4% were to international traders. Our ten largest customers represented approximately 57.7% of our total sales volume. Overall, in 2024, we sold to more than 339 customers across 49 different countries.

Free zinc, treatment charges, premiums and smelter by-products

Smelters operate as processing businesses that generate margins on the concentrates and other feed stocks they process. The price for the underlying metal is largely passed through from the miner supplying the concentrate or the supplier of the secondary feed material to the smelter's customer. Our smelters use zinc concentrate as feedstock, which is supplied both from our own mines and third-party suppliers. The smelter's revenue comes from three primary sources (i) the treatment charge reflects a discount applied to the purchase price of concentrates, (ii) free metal, which is the refined metal produced and sold over and above the metal content paid for in purchased concentrates and (iii) any premium on refined products. Additionally, our smelting operations generate revenue from by-products, which include, silver, gold, copper, cement, sulfuric acid, lead concentrate, lead-silver concentrate, silver concentrates, limestone and copper sulfate.

Free zinc and treatment charges

Free zinc refers to the difference between the total amount of zinc recovered for sale by the smelter and the zinc content that is paid for in the concentrates. Typically, the industry standard for payable zinc content in concentrates is 85.0% of the total zinc content, multiplied by the LME price of zinc. Any additional zinc recovered beyond this percentage is considered "free zinc." A smelter's margin improves as it increases the amount of recoverable metal from zinc.

The treatment charge ("TC") is a discount per tonne of concentrates, which is determined by negotiation between the seller (a mine or a trading company) and the buyer (a smelter). There are three types of treatment charges: benchmark TC (negotiated annually by major miners and buyers, serving as a market reference), spot TC (determined by short-term market conditions and supply-demand dynamics) or negotiated TC (set in direct agreements between smelters and miners or traders. For our integrated mining and smelter operations in Brazil and Peru, we apply a benchmark TC. For our other purchases of zinc concentrate from third-party miners and trading companies.

In order to mitigate volatility, most of our third-party contracts use a three-year average TC, thereby smoothing price fluctuations. In 2024, this reference (based on the average benchmark TC of 2024, 2023 and 2022) was US$223/t concentrate, up 1% from the previous reference (2023, 2022 and 2021 average).

The market trend for treatment charges levels reflects the balance between supply and demand for concentrates in the market. When concentrate supply exceeds smelting capacity, treatment charges increase. When concentrate supply is tight relative to smelting capacity, treatment charges decrease. This cyclical dynamic influences both our smelting profitability and the cost of processing third-party concentrates. For information regarding our actual treatment charges, see "Information on the Company—Smelting operations."

The following table sets forth, for the periods indicated, the zinc realized Benchmark TC, expressed in dollars per dry metric tonne ("dmt") of concentrate.

	For the Year Ended December 31,	
	2024	**2023**
Treatment Charge (in US$/dmt)	165	274

Source: Wood Mackenzie.

Premiums

Like other smelters, we sell metallic zinc and zinc oxide products at a premium over the base LME price. This premium reflects a combination of various factors, including the smelter's service in delivering zinc in specific sizes, shapes, or qualities required by customers, as well as transportation costs. Additionally, premiums are influenced by supply and demand conditions in the respective regional markets. Since transportation costs and customer specification preferences vary by region, premiums are shaped more by regional and local market dynamics rather than by global trends.

The following table presents information on premiums for the indicated markets, expressed in U.S. dollars per tonne, for the periods specified.

	For the Year Ended December 31,	
	2024	2023
Rotterdam (in US$/tonne)	200	371
Singapore (in US$/tonne)	105	131
United States (in US$/tonne)	386	652

Source: Wood Mackenzie.

The following table presents information on gross premiums over the base LME price for zinc oxide realized by our smelting operations in Brazil, expressed in U.S. dollars per tonne.

	For the Year Ended December 31,	
	2024	2023
Brazilian operations (in US$/tonne)	648	714

Smelter by-products

The quantity of by-products produced in our smelters depends on several factors, including the chemical composition of the concentrate and the recovery rates achieved. Some mines produce concentrates with higher levels of by-product metals than others. Additionally, higher by-product recovery rates increase both the number and volume of by-products available for sale.

Sulfuric acid is our principal by-product , generated from the sulfur dioxide gas released during the roasting of zinc concentrates. While zinc smelters use sulfuric acid in their leach plants, most of their requirement are met by sulfuric acid produced in each smelter's electrolysis plant. As a result, only a small portion is consumed internally, leaving the rest available for sale. We sell sulfuric acid through annual or multi-year contracts, as well as spot sales.

Silver concentrate is another relevant by-product that we produce at our Cajamarquilla and Juiz de Fora smelters. It is derived from zinc concentrate obtained during the metallurgical flotation process. The recovered silver is primarily sold to international traders and local customers.

Operating costs and expenses

Our ability to manage our operating costs and expenses is a significant driver of our business performance. We prioritize cost control and expense management to enhance efficiency and ensure resilience during less favorable pricing conditions.

Energy costs

Energy is one of the key components of our costs. Our total energy cost includes the operating expenses of our own hydroelectric power plants, long-term energy supply contracts, and transmission and distribution charges.

In Peru, the energy market is relatively stable in terms of generation (based on hydrology forecasts) and pricing. In 2024, we sourced 2.7% of the energy for our operations from our own hydroelectric power plants and the remaining 97.3% through third-party contracts with the SEIN.

In Brazil, our energy needs are met through five hydroelectric plants in which we have an interest via our subsidiary, Pollarix. We own or invest in these assets to ensure a reliable long-term energy supply, and our energy costs in Brazil reflect the operating costs of these facilities and are sensitive to a variety of factors, including hydrologic conditions.

- Hydroelectric power plant (Picada) is located in Minas Gerais, fully owned by Pollarix.
- Amador Aguiar I, Amador Aguiar II and Igarapava hydroelectric power plants, which are owned by a consortiums, in which Pollarix has a 12.6%, 12.6% and 23.9% participations respectively. We account for our participation in these consortiums as joint operations, as discussed in Note 4(b) to our consolidated financial statements.

- Campos Novos hydroelectric power plant, owned by Enercan, an entity in which Pollarix has a 22.4% equity interest, accounted for by the equity method. Enercan regularly pays dividends, and our CODM considers cash dividends received from Enercan when analyzing our total energy costs.

Pollarix's sole activity is owning our energy assets, and it sells energy to our Brazilian operating subsidiaries at market prices. We control Pollarix through the ownership of all of its common shares, which represent 33.3% of Polarix's total share capital. The remaining shares are preferred shares with limited voting rights, held by Auren. Under the terms of the preferred shares, Auren is entitled to dividends per share that are 1.93 times higher than the dividends per share paid on the common shares. See "Information on the Company—Other operations—Power and energy supply—Brazil." As a result, a substantial part of the profits recognized by Pollarix from selling energy to our Brazilian operating subsidiaries will represent non-controlling interest in our income statement.

Environmental expenses

Our mines and smelters operate under licenses issued by governmental authorities that control, among other things, air emissions and water discharges and are subject to stringent laws and regulations relating to waste materials and various other environmental matters. Additionally, each operation, when it ultimately ceases operations permanently, will need to be rehabilitated.

We have made significant investments to reduce our environmental impact in the areas in which we operate and to ensure that we are able to comply with environmental standards. All our operational units have environmental improvement initiatives relating to reducing emissions and waste and improving the efficiency of use of natural resources and energy.

Where appropriate, we establish environmental provisions for restoration or remediation of existing contamination and disturbance, with all material issues being reviewed annually. Provisions associated with smelter and mining operations sites primarily relate to soil and groundwater contamination.

Since 2016, we have conducted an extensive study and update of our decommissioning plans, including potential environmental obligations. During this period, we also modified our internal policies for decommissioning and environmental issues, which require frequent updates of environmental studies to reflect the best international practices. As a result of these adjustments, we recorded additional environmental provisions of US$4.9 million and US$6.9 million in 2024 and 2023, respectively. Although not expected in the near future, changes in legislation and adjustments to our internal policies after the ongoing evaluations could require additional provisions.

Macroeconomic conditions of the countries and regions where we operate

Peru

The following table presents the inflation rates, interest rates and exchange rates in Peru for the dates and periods indicated.

	For the Year Ended December 31,	
	2024	**2023**
Real GDP growth rate (1)(2)	3.3%	(0.4%)
Internal demand growth rate (2)	3.8%	(1.9%)
Private investment growth rate (2)	2.6%	(7.3%)
Reference interest rate	5.0%	6.8%
CPI rate (2)	2.4%	6.3%
Appreciation (devaluation) of *sol* against the U.S. dollar	1.0%	(2.7%)
Exchange rate of *sol* to US$1.00 (end of period) (3)	3.7403	3.7042

Sources: Central Reserve Bank of Perú, Peruvian Ministry of Economy and Finance.

(1) Preview: Bloomberg consensus rate.
(2) Accumulated during each period.
(3) Official offer exchange rates.

Brazil

The following table presents inflation rates, interest rates and exchange rates in Brazil for the dates and periods indicated.

	For the Year Ended December 31,	
	2024	**2023**
Real GDP growth rate [(1)(2)]	3.5%	2.9%
Inflation rate (IGP-M) [(2)]	6.3%	(3.2%)
Inflation rate (IPCA) [(2)]	4.8%	4.7%
CDI rate (end of period)	10.9%	11.7%
SELIC rate (end of period)	12.2%	11.8%
TJLP	7.4%	6.6%
Appreciation (devaluation) of *real* against the U.S. dollar	27.9%	7.2%
Exchange rate of *real* to US$1.00 (end of period) [(3)]	6.1920	4.8410

Sources: IBGE, the Brazilian Central Bank, Cetip, and FGV.

(1) Preview published by the Brazilian Central Bank official report (Focus) as of January 3, 2025.
(2) Accumulated during each period.
(3) Official offer exchange rates.

Effects of exchange rate fluctuations

Prices for our products are based on international indices, such as LME prices, and denominated in U.S. dollars. However, a portion of our production costs, is denominated in *reais*, creating a mismatch between our revenue and costs in terms of currency. In 2024, 27.4% of our production costs and operational expenses were denominated in *reais* and 17.6% of our production costs and operational expenses were denominated in *soles*. The latter is a smaller portion compared to *reais,* at most of our costs in Peru are in U.S. dollars. As a result, our operational results are impacted by fluctuations in exchange rates between *reais*, *soles*, and the U.S. dollar.

In addition, our Brazilian subsidiary, Nexa Brazil holds outstanding accounts receivables and accounts payables to Nexa Resources, intercompany loans with its related parties and loans in foreign currency, which are denominated in U.S. dollars. The functional currency of Nexa Brazil is the real, therefore, Nexa Brazil recognizes exchange gains or losses when the *real* fluctuates compared to the U.S. dollar. These gains and losses are not eliminated in consolidation, as the functional currency of Nexa Resources is the U.S. dollar, meaning no offsetting gains or losses are recognized, which resulted in a net foreign exchange loss of US$150.7 million in our consolidated financial statements.

The following table presents, for the periods indicated (i) the high and low exchange rates, (ii) the average exchange rates as of the last day of each month for each year, as well as the daily average exchange rates for each month, and (iii) the exchange rate at the end of each period, expressed in *soles* per U.S. dollar (*sol*/US$) and *reais* per U.S. dollar (real/US$) as reported by the Peruvian Central Bank and the Brazilian Central Bank, respectively.

	Exchange Rates of S/ and R$ per US$1.00							
	Period-End		Average [(1)]		High		Low	
	S/	R$	S/	R$	S/	R$	S/	R$
Year ended December 31,								
2023	3.7042	4.8410	3.7438	4.9950	3.8953	5.4456	3.5570	4.7199
2024	3.7403	6.1920	3.7541	5.3917	3.8835	6.1988	3.6730	4.8540
Month								
January 2025	3.7275	5.8298	3.7480	6.0215	3.7810	6.2083	3.7160	5.8298
February 2025	3.6916	5.8485	3.6973	5.7653	3.7180	5.8684	3.6625	5.6978
March 2025 (through March 24)	3.6495	5.7400	3.6526	5.7500	3.6900	5.8343	3.6210	5.6625

Source: Central Reserve Bank of Peru, Brazilian Central Bank, official offer exchange rates.

(1) Annually, represents the average of the daily exchange rates during the periods presented.

Income taxes

Income taxes in Luxembourg, Peru and Brazil have a significant impact on our results. Due to varying economic and political conditions, tax rates in different jurisdictions may experience significant changes. Our future effective tax rates could be affected by changes in the mix of earnings across countries with different statutory tax rates, adjustments in the valuation of deferred tax assets and liabilities and changes in tax laws or their interpretation.

Luxembourg

The combined applicable income tax rate (including an unemployment fund contribution) as of January 1, 2025, was reduced from 24.94% to 23.87% in 2025 (for entities with their statutory seat in Luxembourg City).

Brazil

Our Brazilian subsidiaries are subject to corporate income tax on both their Brazilian and non-Brazilian income. In addition to the corporate income tax, a social contribution tax is levied on their worldwide income. The combined applicable rate for both taxes is 34.0%.

Peru

Our Peruvian subsidiaries are subject to income tax on their worldwide income and are eligible for a potential credit for foreign taxes paid on income derived from foreign sources. The general income tax rate has been 29.5% since 2017.

To promote investments in Peru, investors and Peruvian companies can enter into an agreement with the Peruvian government, known as a Legal Stability Agreement, which provides a stable legal and tax regime for a specified period. In March 2002, Nexa Peru entered into a guarantee and investment protection contract, referred to as the stability agreement. Pursuant to this stability agreement, Nexa Peru applied a special income tax rate of 20.0% from 2007 through 2021. Since January 1, 2022, the general income tax rate of 29.5% is applicable to Nexa Peru. For more information, see "Risk Factors—Changes in tax laws may increase our tax burden and, as a result, could adversely affect our business, financial position and results of operations."

Our Peruvian subsidiaries Nexa Peru, Nexa Resources El Porvenir S.A.C. and Nexa Resources Atacocha S.A.A. are subject to a special mining tax (*Impuesto Especial a la Minería*, or "IEM"), with marginal rates ranging from 2.00% and 8.40% of operating income, depending on the operating margin. In addition, these companies are subject to a mining royalty (*regalía minera*).

Dividends distributed to us by our Peruvian subsidiaries are subject to a withholding tax of 5.0 % on profits earned from 2017 onwards.

Revision of previously issued consolidated financial statements

During the third quarter of 2024, the Company identified an error in the previously issued consolidated financial statements as of and for the years ended December 31, 2023, and 2022 related to the recognition of contracts containing lease arrangements. This error resulted in the non-recognition of right-of-use assets and lease liabilities, as well as the misstatement of costs and expenses. These should have been impacted by the amortization of right-of-use assets and interest expense on the lease liabilities, rather than being recorded as costs and operational expenses related to third-party services.

The Company's management conducted both a quantitative and qualitative analysis and concluded that the error was not material to the previously issued financial statements for the years ended December 31, 2023, and 2022, and therefore, restatement of financial statements was not required. Despite the immateriality, we decided to revise the comparative information for the years ended December 31, 2023, and 2022 to reflect the adjustments. These revisions include the recognition of right-of-use assets of US$63.6 million and lease liabilities of US$68.2 million in our consolidated balance sheet as of December 31, 2023. The related adjustments affecting our other financial statements for the years ended December 31, 2023, and 2022 are shown below on the "Operating and Financial Review and Prospects—Results of Operations" section. The effect of the error in periods prior to January 1, 2022, has been recorded in retained earnings (or cumulative deficit) in the statement of changes in shareholders' equity as of January 1, 2022.

RESULTS OF OPERATIONS

The following discussion and analysis of our financial position and results of operations is based on our consolidated financial statements, (revised). The following table sets forth our summarized results of operations for the periods indicated.

2024 compared to 2023

	For the Year Ended December 31,		Variation	% of Net Revenue from Products Sold	
	2024	2023	2024/2023	2024	2023
	(in millions of US$)		(percentage)	(percentage)	
Consolidated income statement information:					
Net revenues	2,766.5	2,573.2	7.5	100.0	100.0
Cost of sales	(2,228.4)	(2,274.4)	(2.0)	(80.5)	(88.4)
Gross profit	**538.1**	**298.9**	**80.0**	**19.5**	**11.6**
Operating expenses:					
Selling, general and administrative	(127.3)	(126.6)	0.6	(4.6)	(4.9)
Mineral exploration and project evaluation	(68.0)	(99.6)	(31.7)	(2.5)	(3.9)
Impairment loss of long-lived assets	(32.9)	(114.6)	(71.3)	(1.2)	(4.5)
Other income and expenses, net	(33.5)	(110.6)	(69.7)	(1.2)	(4.3)
Operating income (loss)	**276.4**	**(152.6)**	**(281.1)**	**10.0**	**(5.9)**
Share in the results of associates	21.2	23.5	(9.8)	0.8	0.9
Results from associates' equity	**21.2**	**23.5**	**(9.8)**	**0.8**	**0.9**
Financial income	24.0	25.8	(7.0)	0.9	1.0
Financial expenses	(243.7)	(209.9)	16.1	(8.8)	(8.2)
Other financial items, net	(149.8)	17.0	(981.2)	(5.4)	0.7
Net financial results	**(369.5)**	**(167.1)**	**121.1**	**(13.4)**	**(6.5)**
(Loss) income before income tax	**(71.9)**	**(296.1)**	**(75.7)**	**(2.6)**	**(11.5)**
Income tax benefit (expense)	(115.6)	4.3	(2,788.4)	(4.2)	0.2
Net (loss) income for the year	**(187.4)**	**(291.8)**	**(35.8)**	**(6.8)**	**(11.3)**

Net revenues

In 2024, net revenues of US$2,766.5 million increased by 7.5%, or US$193.2 million compared to 2023. This growth was primarily driven by higher LME prices (except for lead), increased mining sales volume (except for zinc) and slightly higher smelting sales volume, partially offset by a lower net premium. The average LME prices for zinc, a key benchmark for our prices, increased by 5.0%, from US$2,646.6 per tonne in 2023 to US$2,779.0 per tonne in 2024. This increase contributed approximately US$78.1 million to net revenues, based on our 2023 sales volumes of 589.8kt and the average LME price difference of US$132.4/t between 2024 and 2023. Higher sales volume of silver and gold contained in concentrates combined with higher prices positively impacted net revenues approximately in US$104.4 million. Higher sales volume of copper and lead also positively impacted net revenues by approximately US$28.1 million. Additionally, the average price of copper, which increased 7.9% from US$8,477.8 per tonne in 2023 to US$9,146.8 per tonne in 2024, contributing US$21.6 million to net revenues. A small increase in smelting sales volume further added approximately US$3.9 million to net revenues. These positive impacts were partially offset by negative impact in our net revenues of approximately US$4.1 million, explained by lower average lead prices. For a discussion of the underlying reasons driving the change in commodity prices, see "Operating and Financial Review and Prospects—Overview—Key factors affecting our business and results of operations—Metal Prices."

The following table shows a breakdown of our net revenues by destination of our sales.

	For the Year Ended December 31,	
	2024	2023
	(in millions of US$)	
Peru	833.9	654.2
Brazil	601.0	559.8
Singapore	234.8	229.3
Switzerland	224.3	209.3
United States	166.9	169.0
Argentina	81.5	94.1
Chile	78.2	83.5
Luxembourg	71.3	78.5
United Kingdom	62.6	14.8
South Korea	60.4	40.0
Austria	42.8	47.9
Japan	39.7	32.1
South Africa	39.4	41.4
Colombia	31.2	36.1
Taiwan	30.5	26.9
Germany	23.2	16.3
Turkey	20.6	26.6
Vietnam	18.7	5.0
Ecuador	11.1	14.6
Belgium	9.0	19.8
China	7.6	65.9
Netherlands	5.5	16.0
Italy	4.2	9.5
Malaysia	3.4	18.7
Other	64.7	64.1
Net revenues	**2,766.5**	**2,573.2**

The following table sets forth the components of our production and sales volumes for the metals and periods indicated.

	For the Year Ended December 31,	
	2024	2023
Treatment Ore (in tonnes)	**13,420,966**	**13,846,530**
Mining Production—Metal Contained in Concentrate		
Zinc contained in concentrates (in tonnes)	326,995	333,154
Copper contained in concentrates (in tonnes)	35,698	33,385
Lead contained in concentrates (in tonnes)	69,303	65,194
Silver contained in concentrates (in oz)	11,694,073	10,300,672
Gold contained in concentrates (in oz)	36,027	27,627
External Mining Sales—Metal Contained in Concentrate (1)		
Zinc contained in concentrates (in tonnes)	887	18,321
Copper contained in concentrates (in tonnes)	35,669	33,379
Lead contained in concentrates (in tonnes)	69,267	65,596
Smelting Production—Zinc Contained in Product Volumes		
Cajamarquilla (metal available for sale in tonnes)	334,078	322,948
Três Marias (metal available for sale in tonnes)	144,096	148,469
Juiz de Fora (2) (metal available for sale in tonnes)	81,989	82,144
Total zinc metal production (in tonnes)	**560,163**	**553,562**
Zinc Oxide Production—Zinc Contained in Product Volumes		
Três Marias (Zinc oxide, contained zinc in tonnes)	34.569	33,961
Smelting Sales—Product Volumes		
Metallic zinc (in tonnes)	556,795	555,957
Zinc oxide (in tonnes)	34,512	33,885
Total smelting sales volumes (in tonnes)	**591,307**	**589,843**

(1) Based on typical zinc contents in metallic zinc products and zinc oxide. For more details, see "Information on the Company—Smelting operations—Zinc contained in smelting products sold."

(2) Including 2,861 tonnes of zinc ashes and drosses in 2024, and 3,067 in 2023.

Cost of sales

In 2024, our cost of sales of US$2,228.4 million decreased by 2.0%, or US$45.9 million compared to 2023. This decrease was mainly due to lower operational costs in our mining segment, reduced energy and freight expenses in our smelting segment, and the favorable foreign exchange fluctuations. These factors were partially offset by the negative impact of higher zinc prices on zinc concentrate purchases and lower TCs from third-party concentrates, which adversely affected our smelting segment.

Selling, general and administrative expenses

In 2024, our selling, general and administrative (“SG&A”) expenses of US$127.3 million increased by 0.6%, or US$0.7 million compared to 2023. This increase was mainly driven by higher employee benefit expenses, including increased workers’ participation and higher legal expenses, which were partially offset by favorable foreign exchange variations and lower insurance costs.

Mineral exploration and project evaluation

In 2024, our mineral exploration and project evaluation expenses of US$68.0 million decreased by 31.8%, or US$31.6 million, compared to 2023. This reduction was primarily due to lower project evaluation expenses, lower investments in greenfield projects for both mineral exploration and project evaluation, and reduced infill drilling activities at Aripuanã. In 2024, our exploration drilling totaled 63.8 km, compared to 85.2 km in 2023.

Impairment loss of long-lived assets

In 2024, we conducted our annual impairment test and analyzed all indicators and recorded an impairment loss of US$32.9 million. This loss was primarily comprised of impairment charges for the Magistral project and other individual assets related to assets and projects under construction, partially offset by impairment reversals for the Cerro Pasco CGU, Morro Agudo and Pukaqaqa Project.

For further information about our impairment assessments, please refer to Note 31 to our consolidated financial statements.

Other income and expenses, net

In 2024, our other income and expenses, net negatively impacted our results by US$33.5 million, mainly due to loss on sale and write-off of property, plant and equipment amounting to US$16.2 million, contributions to communities of US$14.6 million and slow moving and obsolete inventory totaling US$10.9 million, partially offset by a positive variation of US$13.8 million related to changes in asset retirement, restoration and environmental obligations.

The following table presents our other income and expenses, net for the periods indicated. For further information, please refer to Note 9 to our consolidated financial statements.

	For the Year Ended December 31,	
	2024	2023
	(in millions of US$)	
Other income and expenses, net		
ICMS tax incentives	-	32.3
Changes in fair value of offtake agreement	(3.3)	2.3
Changes in fair value of derivative financial instruments	0.7	(1.4)
Loss on sale and write-off of property, plant and equipment	(16.2)	(3.7)
Changes in asset retirement, restoration and environmental obligations	13.8	(10.1)
Slow moving and obsolete inventory	(10.9)	(4.4)
Provision for legal claims	1.9	(13.9)
Contribution to communities	(14.6)	(13.1)
Tax voluntary disclosure	-	(86.9)
Changes in fair value of energy forward contracts	0.1	(15.7)
Divestment and restructuring	9.0	-
Others	(14.0)	4.0
Total other income and expenses, net	**(33.5)**	**(110.6)**

Net financial results

In 2024, we recognized net financial results of US$369.5 million, an increase of 121.2%, or US$202.4 million, compared to US$167.1 million in 2023. This increase was mainly due to increased foreign exchange losses of US$168.9 million related to the depreciation of the Brazilian real against the U.S. Dollar. Additionally, financial expenses rose by US$19.5 million due to interest on loans and financings, US$7.4 million related to interest on lease liabilities, and US$7.1 million related to bond repurchase expenses.

- Our financial income in 2024 decreased by 6.8%, or US$1.8 million, to US$24.0 million. This decrease was mainly due to lower interest income from tax credits and a negative impact from monetary adjustments on assets.

- Financial expenses in 2024 increased by 16.1%, or US$33.8 million, to US$243.7 million. This was mainly due to the increase in interest on loans and financings, and lease liabilities, in addition to our bonds repurchase expenses.

- Other financial items, net decreased by US$166.8 million, reaching US$149.8 million in 2024. This decrease was mainly due to the net foreign exchange losses reflecting the accounting effect of the depreciation of the Brazilian real against the U.S. dollar on certain U.S. dollar-denominated loans made from us to Nexa Brazil (which uses the Brazilian real as its functional currency). The 7.9% average depreciation of the Brazilian real against the U.S. dollar in 2024 resulted in a foreign exchange loss.

- Excluding the impact of foreign exchange variation, our net financial results increased by 18.1%, or US$33.6 million, to US$218.8 million in 2024 compared to US$185.3 million in 2023, as a result of the aforementioned reasons.

(Loss) income before income tax

As a result of the factors described above, our loss before income tax in 2024 was US$71.9 million, as compared to a loss before income tax of US$296.1 million in 2023.

Income tax benefit (expense)

In 2024, we recorded an income tax expense of US$115.6 million, as compared to an income tax benefit of US$4.3 million in 2023. Our current income tax expense in 2024 increased by 154.1%, or US$124.7 million, to US$205.6 million, mainly due to the income tax provision for the Cerro Lindo Stability Agreement, along with higher metal prices and volumes.

The difference between the nominal and effective tax rates in 2024 and 2023 is attributed to permanent items that impacted the calculation of current income tax for these periods. These include the income tax provision for the Cerro Lindo Stability Agreement, tax losses that did not qualify for deferred tax asset recognition, and the special mining levy and mining taxes in Peru. In 2024, we recorded a deferred tax income of US$90.1 million, an increase of US$4.9 million compared to 2023, mainly as a result of the recognition of a deferred tax asset related to tax losses in Brazil.

Net (loss) income for the year

As a result of the foregoing, we incurred a net loss of US$187.4 million in 2024 compared to a net loss of US$291.8 million in 2023.

Results by segment

The following table presents our summarized results of operations by segment for the periods indicated.

	For the Year Ended December 31,		Variation	Variation
	2024	2023	2024/2023	2024/2023
Consolidated Income Statement Information:	(in millions of US$)			(percentage)
Net revenues:				
Mining	1,349.7	1,090.3	259.4	23.8
Smelting	1,997.3	1,946.7	50.7	2.6
Intersegments Sales	(604.0)	(468.3)	(135.8)	29.0
Adjustments [(1)]	23.5	4.5	19.0	417.1
Total	**2,766.5**	**2,573.2**	**193.2**	**7.5**
Cost of sales:				
Mining	(1,011.7)	(1,026.2)	(14.4)	(1.4)
Smelting	(1,799.8)	(1,726.3)	(73.5)	4.3
Intersegments Sales	604.0	468.3	135.8	29.0
Adjustments [(1)]	(20.9)	9.8	(30.8)	-
Total	**(2,228.4)**	**(2,274.4)**	**45.9**	**(2.0)**
Gross profit:				
Mining	337.9	64.1	273.8	427.2
Smelting	197.6	220.4	(22.8)	(10.4)
Adjustments [(1)]	2.6	14.4	(11.8)	(82.1)
Total	**538.1**	**298.9**	**239.2**	**80.0**

(1) See Note 2 to our consolidated financial statements.

Mining

Net revenues

In 2024, our net revenues in the mining segment totaled US$1,349.7 million, an increase of by 23.8%, or US$259.4 million. This was primarily due to higher LME metal prices (except for lead), lower TCs, and increased sales volumes across all metals (except for zinc).

In 2024, 100% of our zinc concentrate production was directed to our smelting operations in Peru and Brazil, however, 0.7% of the production was resold to a third-party customer due to a swap contract arrangement.

Cost of sales

In 2024, our cost of sales in our mining segment totaled US$1,011.7 million, a decrease of 1.4%, or US$14.4 million, mainly due to lower zinc sales volume.

Smelting

Net revenues

In 2024, our net revenues in the smelting segment amounted to US$1,997.3 million, an increase of 2.6%, or US$50.7 million, mainly due to higher zinc prices and slightly higher sales volumes, partially offset by lower net premium.

Cost of sales

In 2024, our cost of sales in our smelting segment totaled US$1,799.8 million, an increase of 4.3%, or US$73.5 million, primarily due to higher zinc prices and lower TCs, negatively impacting our raw material cost and a small increase in higher sales volumes.

Adjusted EBITDA by Segment

Adjusted EBITDA by segment is the main performance measure used by the chief operating decision maker to assess segment performance and to make decisions about resource allocation. Adjusted EBITDA information for our segments is disclosed and reconciled with IFRS Accounting Standards numbers in Note 2 to our financial statements. The use of Adjusted EBITDA as a segment performance measure is not considered a non-IFRS Accounting Standards financial measure.

A breakdown of Adjusted EBITDA by segment is presented below.

	For the Year Ended December 31,	
	2024	**2023**
	(in millions of US$)	
Breakdown of Adjusted EBITDA by segment:		
Mining	464.1	160.6
Smelting	249.6	250.3
Other [1]	0.5	(4.9)
Adjusted EBITDA	**714.1**	**406.0**

(1) Represents the residual component of Adjusted EBITDA either not pertaining to the mining or smelting segments, or, represents items that, because of their nature, are not being allocated to a specific segment.

2023 compared to 2022

The following discussion and analysis of our financial position and results of operations is based on our consolidated financial statements for the year ended December 31, 2023, (revised). The following table sets forth our summarized results of operations for the periods indicated.

	For the Year Ended December 31,		Variation	% of Net Revenue from Products Sold	
	2023	**2022**	**2023/2022**	**2023**	**2022**
	(in millions of US$)		(percentage)	(percentage)	
Consolidated income statement information:					
Net revenues	2,573.2	3,034.0	(15.2)	100.0	100.0
Cost of sales	(2,274.4)	(2,393.9)	(5.0)	(88.4)	(78.9)
Gross profit	**298.9**	**640.1**	**(53.3)**	**11.6**	**21.1**
Operating expenses:					
Selling, general and administrative	(126.6)	(145.2)	(12.8)	(4.9)	(4.8)
Mineral exploration and project evaluation	(99.6)	(98.8)	0.8	(3.9)	(3.3)
Impairment loss of long-lived assets	(114.6)	(32.5)	252.6	(4.5)	(1.1)
Other income and expenses, net	(110.6)	(2.7)	3,996.3	(4.3)	(0.1)
Operating income (loss)	**(152.6)**	**360.9**	**(142.3)**	**(5.9)**	**11.9**
Share in the results of associates	23.5	1.9	1,136.8	0.9	0.1
Results from associates' equity	**23.5**	**1.9**	**1,136.8**	**0.9**	**0.1**
Financial income	25.8	25.0	3.2	1.0	0.8
Financial expenses	(209.9)	(169.8)	23.6	(8.2)	(5.6)
Other financial items, net	17.0	9.9	71.3	0.7	0.3
Net financial results	**(167.1)**	**(134.8)**	**24.0**	**(6.5)**	**(4.4)**
(Loss) income before income tax	**(296.1)**	**228.0**	**(229.9)**	**(11.5)**	**7.5**
Income tax benefit (expense)	4.3	(151.0)	(102.8)	0.2	(5.0)
Net (loss) income for the year	**(291.8)**	**77.0**	**(479.0)**	**(11.3)**	**2.5**

Net revenues

In 2023, our net revenues totaled US$2,573.2 million, a decrease of 15.2%, or US$460.8 million compared to 2022, primarily driven by lower zinc and copper prices and reduced smelting sales volume, which was partially offset by higher mining production volumes. Zinc average LME prices, which serve as the key benchmark for our prices decreased by 23.9%, from US$3.478.3 per tonne in 2022 to US$2,646.6 per tonne in 2023. This price drop negatively impacted our net revenues by approximately US$512.5 million, based on our sales volumes of 616.2kt in 2022 and the average LME price difference of US$831.7/t between 2023 and 2022. Additionally, lower smelting sales volume contributed a further negative impact of approximately US$91.7 million to our net revenues. Copper prices also decreased by 3.6% from US$8,797.0 per tonne in 2022 to US$8,477.8 per tonne in 2023, resulting in a negative impact of US$10.6 million. However, the overall decline in net revenues was partially offset by a positive contribution of US$18.1 million from higher mining production volumes, which led to increased copper and lead sales, in addition to a higher net premium in smelting sales. For a discussion of the underlying reasons driving the change in commodity prices, see "Operating and Financial Review and Prospects—Overview—Key factors affecting our business and results of operations—Metal Prices."

The following table shows a breakdown of our net revenues by destination of our sales.

	For the Year Ended December 31,	
	2023	2022
	(in millions of US$)	
Peru	654.2	840.4
Brazil	559.8	846.6
Singapore	229.3	166.4
Switzerland	209.3	124.7
United States	169.0	174.5
Argentina	94.1	94.4
Chile	83.5	120.1
Luxembourg	78.5	95.3
China	65.9	0.0
Austria	47.9	48.7
South Africa	41.4	55.9
South Korea	40.0	32.4
Colombia	36.1	64.0
Japan	32.1	71.4
Taiwan	26.9	65.0
Turkey	26.6	55.0
Belgium	19.8	17.9
Malaysia	18.7	26.0
Germany	16.3	3.8
Netherlands	16.0	13.6
United Kingdom	14.8	3.4
Ecuador	14.6	15.4
Italy	9.5	9.6
Vietnam	5.0	8.4
Other	64.1	81.1
Net revenues	**2,573.2**	**3,034.0**

The following table presents the components of our production and sales volumes for the metals listed for the periods indicated.

	For the Year Ended December 31,	
	2023	2022
Treatment Ore (in tonnes)	**13,846,530**	**12,343,018**
Mining Production—Metal Contained in Concentrate		
Zinc contained in concentrates (in tonnes)	333,154	296,403
Copper contained in concentrates (in tonnes)	33,385	33,219
Lead contained in concentrates (in tonnes)	65,194	57,448
Silver contained in concentrates (in oz)	10,300,672	9,974,462
Gold contained in concentrates (in oz)	27,627	27,216
External Mining Sales—Metal Contained in Concentrate [1]		
Zinc contained in concentrates (in tonnes)	18,321	179
Copper contained in concentrates (in tonnes)	33,379	33,379
Lead contained in concentrates (in tonnes)	65,596	65,596
Smelting Production—Zinc Contained in Product Volumes		
Cajamarquilla (metal available for sale in tonnes)	322,948	332,824
Três Marias (metal available for sale in tonnes)	148,469	149,592
Juiz de Fora [2] (metal available for sale in tonnes)	82,144	84,160
Total zinc metal available for sale production (in tonnes)	**553,562**	**566,577**
Zinc Oxide Production—Zinc Contained in Product Volumes		
Três Marias (Zinc oxide, contained zinc in tonnes)	33,961	40,322
Smelting Sales—Product Volumes		
Metallic zinc (in tonnes)	555,957	575,886
Zinc oxide (in tonnes)	33,885	40,315
Total smelting sales volumes (in tonnes)	**589,843**	**616,200**

(1) Based on typical zinc contents in metallic zinc products and zinc oxide. For more details, see "Information on the Company—Smelting operations—Zinc contained in smelting products sold."

(2) Including 3,067 tonnes of zinc ashes and drosses in 2023, and 3,710 in 2022.

Cost of sales

In 2023, our cost of sales of US$2,274.4 million, decreased by 5.0%, or US$119.6 million compared to 2022. This decrease was primarily driven by a US$54.9 million related to the positive impact of the reversal of the net realizable value provision for Aripuanã's inventory and an approximately US$166.0 million reduction due to lower smelting sales volume and lower third-party zinc concentrate prices, which were partially offset by approximately US$102.5 million related to higher operational costs (excluding raw material).

Selling, general and administrative expenses

In 2023, our selling, general and administrative ("SG&A") expenses of US$126.6 million decreased by 12.8%, or US$18.6 million compared to 2022, mainly as result of our organizational redesign in 2022 and lower third-party services in support areas.

Mineral exploration and project evaluation

In 2023, our mineral exploration and project evaluation expenses of US$99.6 million increased by 0.8%, or US$0.8 million compared to 2023, primarily driven by brownfield investments (mainly at El Porvenir, Cerro Lindo, Aripuanã and Vazante) as well as exploration stage projects, despite budget restrictions due to lower LME base metals prices. Our exploration drilling (including infill drilling at Aripuanã) totaled 85.2 km in 2023, compared to 116.7 km in 2022, excluding Aripuanã infill drilling, we drilled a total of 64.1 km.

Impairment loss of long-lived assets

In 2023, we conducted our impairment annual test and analyzed all indicators and recorded an impairment loss of US$114.6 million, primarily related to the Morro Agudo unit of Nexa Brazil, and Nexa Peru and their subsidiaries.

For further information about our impairment assessments, please refer to Note 31 to our consolidated financial statements.

Other income and expenses, net

In 2023, our other income and expenses, net negatively impacted our results by US$110.6 million, mainly due to recognition of expenses related to the provisions of VAT discussions totaling US$86.9 million, the recognition of US$15.7 million related to Pollarix's energy MTM balance, and the provision for legal claims of US$13.9 million.

The following table presents our other income and expenses, net for the periods indicated. For further information, please refer to Note 9 to our consolidated financial statements.

	For the Year Ended December 31,	
	2023	2022
	(in millions of US$)	
Other income and expenses, net		
ICMS tax incentives	32.3	56.7
Changes in fair value of offtake agreement	2.3	24.3
Pre-operating expenses related to Aripuanã	-	(45.8)
Impairment of other assets	-	(9.3)
Changes in fair value of derivative financial instruments	(1.4)	1.4
Loss on sale and write-off of property, plant and equipment	(3.7)	(0.7)
Changes in asset retirement, restoration and environmental obligations	(10.1)	(1.5)
Slow moving and obsolete inventory	(4.4)	(11.5)
Provision for legal claims	(13.9)	(7.7)
Contribution to communities	(13.1)	(17.2)
Tax voluntary disclosure	(86.9)	-
Changes in fair value of energy forward contracts	(15.7)	-
Divestment and restructuring	-	-
Others	4.0	8.7
Total other income and expenses, net	**(110.6)**	**(2.7)**

Net financial results

In 2023, we recognized a net financial result of US$167.1 million, an increase of 23.9%, or US$32.2 million, compared to US$134.8 million in 2022. This was mainly due to an increase of US$16.0 million related to the financial expenses of VAT matters, an increase of US$11.8 million in financial expenses from interest on factoring operations and confirming payables, and a decrease of US$5.3 million in financial income from interest on financial investments and, cash and cash equivalents.

- In 2023, our financial income increased by 3.1%, or US$0.8 million, to US$25.8 million compared to 2022. This was mainly due to an expenditure of US$3.4 million related to a monetary adjustment on assets, interests and the use of public assets, partially offset by the decrease of US$5.3 million in interest on financial investments and, cash and cash equivalents.

- In 2023, our financial expenses increased by 23.6%, or US$40.1 million, to US$209.9 million, as compared to 2022. This was mainly due to the increases in VAT-related financial expenses of US$16.0 million and interest on factoring operations and confirming payables of US$11.8.

- In 2023, our other financial items, net increased by 71.3%, or US$7.1 million, to US$17.0 million, as compared to 2022. This was mainly due to net foreign exchange gains. The 3.3% average appreciation of the Brazilian *real* against the U.S. dollar generated foreign exchange gains on certain U.S. dollar-denominated loans between Nexa Resources to Nexa Brazil (which uses the Brazilian *real* as its functional currency).

- Excluding of foreign exchange variations, our net financial result increased by 26.6%, or US$38.9 million, to US$185.2 million in 2023 compared to US$146.3 million in 2022, as a result of the aforementioned reasons.

(Loss) income before income tax

As a result of the factors described above, we recorded a loss before income tax of US$296.1 million in 2023, as compared to an income before income tax of US$228.0 million in 2022.

Income tax benefit (expense)

In 2023, we recorded an income tax benefit of US$4.3 million, as compared to an income tax expense of US$151.0 million in 2022.

In 2023, our current income tax expense decreased by 46.3%, or US$69.8 million, to US$80.9 million, as compared to 2022, mainly due to the decrease in income before income tax for the year, driven by lower metal prices and volumes.

The difference between our nominal and effective tax rates in 2023 and 2022 was primarily due to permanent items affecting the calculation of current income tax, including tax payments related to the tax voluntary disclosure agreement with the State of Minas Gerais, impairment of goodwill in Peru, and the special mining levy and mining taxes in Peru. These were partially offset by the permanent tax exclusion of VAT tax incentives in Brazil.

In 2023, we recognized deferred tax income of US$85.2 million, mainly due to the recognition of deferred tax assets on Brazilian tax losses for the year, as well as foreign exchange rate fluctuations in Peru, which impacted the valuation of property, plant and equipment and intangible assets.

Net (loss) income for the year

As a result of the foregoing, we reported a net loss of US$291.8 million in 2023 as compared to net income of US$77.0 million in 2022.

Results by segment

The following table presents our summarized results of operations by segment for the periods indicated.

	For the Year Ended December 31,		Variation	Variation
	2023	2022	2023/2022	2023/2022
Consolidated Income Statement Information:	(in millions of US$)			(percentage)
Net revenues:				
Mining	1,090.3	1,248.0	(157.8)	(12.6)
Smelting	1,946.7	2,467.0	(520.3)	(21.1)
Intersegments Sales	(468.3)	(683.6)	215.3	(31.5)
Adjustments [(1)]	4.5	2.6	2.0	76.3
Total	**2,573.2**	**3,034.0**	**(460.8)**	**(15.2)**
Cost of sales:				
Mining	(1,026.2)	(904.4)	(121.8)	13.5
Smelting	(1,726.3)	(2,190.5)	464.3	(21.2)
Intersegments Sales	468.3	683.6	(215.3)	(31.5)
Adjustments [(1)]	9.8	17.4	(7.5)	(43.4)
Total	**(2,274.4)**	**(2,393.9)**	**119.6**	**(5.0)**
Gross profit:				
Mining	64.1	343.7	(279.6)	(81.3)
Smelting	220.4	276.4	(56.0)	(20.3)
Adjustments [(1)]	14.4	20.0	(5.6)	(27.9)
Total	**298.9**	**640.1**	**(341.2)**	**(53.3)**

(1) See Note 2 to our consolidated financial statements.

Mining

Net revenues

In 2023, our net revenues in the mining segment of US$1,090.3 million, decreased by 12.6%, or US$157.8 million, as compared to 2022. This was primarily due to lower LME base metal prices, partially offset by higher zinc and lead volumes.

In 2023, the only export volumes of zinc concentrates were from Aripuanã, where concentrates that are not within market specifications are shipped to third parties.

Cost of sales

In 2023, our cost of sales in our mining segment of US$1,026.2 million, increased by 13.5%, or US$121.8 million, mainly due to the ramp-up activities at Aripuanã, reflecting the costs associated with a full-year of production in 2023, as compared to a partial year of production in 2022.

Smelting

Net revenues

In 2023, our net revenues in the smelting segment of US$1,946.7 million, decreased by 21.1%, or US$520.3 million, as compared to 2022, mainly due to lower zinc prices and lower metal sales volumes, partially offset by higher metal premiums.

Cost of sales

In 2023, our cost of sales in our smelting segment of US$1,726.3 million, decreased by 21.2%, or US$464.3 million, primarily due to lower sales volumes, the decrease in metal prices and higher TCs, which positively impacted the zinc concentrate purchase price.

Non-IFRS Accounting Standards measures and reconciliation

Adjusted EBITDA

In 2024, our Adjusted EBITDA amounted to US$714.1 million, up 75.9% compared to 2023, driven by our consistent operational performance, favorable metal prices supported by the strong market fundamentals, and disciplined financial management. Additionally, Adjusted EBITDA was positively impacted by higher by-products contribution, higher zinc prices, the positive impact of foreign exchange variations, and reduced mineral exploration and project evaluation expenses.

Our management uses Adjusted EBITDA as an additional performance measure on a consolidated basis, in addition to, and not as a substitute for, net income. We define Adjusted EBITDA as net income (loss) for the year, adjusted by (i) share in the results of associates, depreciation and amortization, net financial results and income tax; (ii) addition of cash dividends received from associates; (iii) non-cash events and non-cash gains or losses that do not specifically reflect our operational performance for the specific period, such as: gain (loss) on sale of investments; impairment and impairment reversals; gain (loss) on sale of long-lived assets; write-offs of long-lived assets; remeasurement in estimates of asset retirement obligations and other restoration obligations; (iv) pre-operating and ramp-up expenses incurred during the commissioning and ramp-up phases of greenfield projects. For future periods, when applicable, management may exclude the impact of certain types of transactions that in its judgments are (i) events that are non-recurring, unusual or infrequent, and (ii) other specific events that, by their nature and scope, do not reflect our operational performance for the specific period .

We believe this measure provides useful information about the performance of our operations as it facilitates consistent comparisons between periods, planning and forecasting of future operating results. This reflects the operational performance of our existing business without the impact of interest, taxes, amortization, depreciation, non-cash items that do not reflect our operational performance for the specific reporting period and the impact of pre-operating and ramp-up expenses during the commissioning and ramp-up phases of Aripuanã. Pre-operating and ramp-up expenses incurred during the commissioning and ramp-up phases of Aripuanã are not considered infrequent, unusual or non-recurring expenses, as they have recurred in prior years with respect to Aripuanã and may recur in the future with respect to Aripuanã or any other projects that may reach the commissioning or ramp-up phases. Commencing in July 2024, these effects have no longer been included since, at the end of June 2024, Aripuanã reached the final stage of its ramp-up phase, transitioning to an ongoing operation. Also, since 2024, our management includes the cash dividend received from associates (currently, Enercan is our only associate) as part of our Adjusted EBITDA calculation. Enercan is an equity method investee with which we have a long-term energy supply agreement. Energy is one of the key components of our costs; as the purpose of our equity investment in Enercan is to secure a reliable long-term energy supply, our management considers this cash dividend received from Enercan each year as part of its analysis of our energy costs for such year. See "Operating and financial review and prospects—Key factors affecting our business and results of operations—Energy costs."

Our calculation of Adjusted EBITDA may differ from the calculation used by other companies, including our competitors in the mining industry, so our measures may not be comparable to those of other companies.

A reconciliation of Adjusted EBITDA to our net (loss) income for the years indicated is presented below.

	For the Year Ended December 31,		
	2024	2023	2022
		(in millions of US$)	
Reconciliation of Adjusted EBITDA:			
Net (loss) income for the year	(187.4)	(291.8)	77.0
Share in the results of associates	(21.2)	(23.5)	(1.9)
Depreciation and amortization	330.2	310.5	292.1
Net financial results	369.5	167.1	134.8
Income tax (benefit) expense	115.6	(4.3)	151.0
Change in fair value of offtake agreement (1)	0.1	(2.3)	(24.3)
Impairment loss of long-lived assets (2)	32.9	114.6	32.5
Impairment of other assets (3)	0.3	-	9.3
Gain (loss) on sale and write-off of property, plant and equipment (4)	16.2	3.7	0.7
Remeasurement in estimates of asset retirement obligations (5)	(5.3)	(3.1)	(6.2)
Remeasurement adjustment of streaming agreement (6)	21.1	10.1	10.6
Aripuanã ramp-up impacts (7)	25.2	15.5	87.5
Changes in fair value of energy forward contracts (8)	(0.1)	15.7	-
Tax voluntary disclosure (9)	-	86.9	-
Other restoration obligations (10)	1.0	7.0	-
Divestment and restructuring (11)	(9.0)	-	-
Dividends received in cash (12)	25.2	-	-
Adjusted EBITDA	**714.1**	**406.0**	**763.2**

(1) Non-cash adjustment: Derivative financial instrument related to an offtake sale contract.
(2) Non-cash adjustment: Cash generating unit and individual PP&E assets impairment loss.
(3) Non-cash adjustment: Value-added-taxes impairment loss.
(4) Non-cash adjustment: Results from sale and disposal of certain non-current assets.
(5) Non-cash adjustment: Asset retirement obligation remeasurement of discount rate and updated studies that are not subject to capitalization.
(6) Non-cash adjustment: Remeasurement of contractual obligation related to the forward sale contract of Cerro Lindo's Silver contained in the ore.
(7) Expenses related to pre-operating and ramp-up expenses incurred during the commissioning and ramp-up phases of greenfield projects which have not achieved their nameplate capacity. From July 2024, these effects were no longer included since, at the end of June 2024 it reached the final stage of its ramp-up phase, transitioning to an ongoing operation.
(8) Non-cash adjustment: The fair value adjustment of the energy surplus resulting from electric energy purchase contracts of our subsidiary, Pollarix.
(9) Expenses related to the impact of accruals related to VAT matters.
(10) Non-cash adjustment: Expenses related to the remeasurement of provision related to estimated costs of anticipated additional obligations in relation to certain inactive industrial waste containment structures in Brazil that have been closed for more than 20 years and that do not contain mining tailings, water or liquid waste.
(11) Expenses related to the effects of obligations of restructuring and divestment related to assets held for sale.
(12) Dividends received from associates, as our management considers this dividend part of the analysis of our energy costs. This adjustment was not made in 2023.

Net Debt

We define Net Debt as (i) loans and financing and lease liabilities, *less* (ii) cash and cash equivalents, *less* (iii) financial investments, *plus*/*less* (iv) the fair value of derivative financial liabilities or assets, respectively. Our management believes that net debt is an important figure because it indicates our ability to repay outstanding debts that become due simultaneously using available cash and highly liquid assets.

A reconciliation of Net Debt to loans and financing as of December 31, 2024, 2023 and 2022 is presented below.

	As of December 31,		
	2024	2023	2022
		(in millions of US$)	
Calculation of Net Debt:			
Loans and financings	1,762.6	1,725.6	1,669.3
Derivative financial instruments	(1.5)	2.6	2.6
Lease liabilities	95.9	77.4	27.2
Cash and cash equivalents	(620.5)	(457.3)	(497.8)
Financial investments	(19.7)	(11.1)	(18.1)
Net Debt	**1,216.8**	**1,337.2**	**1,183.2**

Net Debt to Adjusted EBITDA

We define Net Debt to Adjusted EBITDA ratio as Net Debt divided by Adjusted EBITDA.

The calculation of our Net Debt to Adjusted EBITDA ratio for the periods indicated is presented below.

	As of and For the Year Ended December 31,		
	2024	**2023**	**2022**
		(in millions of US$)	
Calculation of Net Debt to Adjusted EBITDA Ratio:			
Net debt (period end)	1,216.8	1,337.2	1,183.2
Adjusted EBITDA	714.1	406.0	763.2
Net Debt to Adjusted EBITDA Ratio	**1.70**	**3.29**	**1.55**

Adjusted EBITDA Margin

We define Adjusted EBITDA margin as Adjusted EBITDA divided by net revenues. The calculation of our Adjusted EBITDA margin for the periods indicated is presented below.

	For the Year Ended December 31,		
	2024	**2023**	**2022**
		(in millions of US$)	
Calculation of Adjusted EBITDA Margin:			
Adjusted EBITDA	714.1	406.0	763.2
Net revenues	2,766.5	2,573.2	3,034.0
Adjusted EBITDA Margin	**25.8%**	**15.8%**	**25.2%**

Cash cost, net of by-products credits and related measures

In this report, we also present measures of costs that are widely used by peer companies operating in the mining and smelting industries. These performance measures are non-IFRS Accounting Standards measures, and they do not have a standard meaning and therefore may not be comparable to similar data presented by other mining and smelting companies. They should not be considered as a substitute for costs of sales, costs of selling and administrative expenses, or as an indicator of costs. Similar measures are also calculated by Wood Mackenzie for many market participants, but Wood Mackenzie's methodology differs from the methodology we use below.

Our management uses cash cost, net of by-products credits and related measures, among other measures, for internal planning and performance measurement purposes. We believe these measures provide useful information about the operational performance of our operations that facilitates period-to-period comparisons on a consistent basis.

In calculating cash cost, net of by-products credits, we account for transactions between our mining operations and our smelting operations using the same methodology we use to evaluate the performance of our mining and smelting segments. See Note 2 to our consolidated financial statements. We prepare an internal calculation based on transfer pricing adjustments made on an arm's length principal basis. All information disclosed for cash cost, net of by-products credits is consistent with this methodology.

Mining operations

Cash cost, net of by-products credits: For our mining operations, cash cost, net of by-products credits includes all direct costs associated with mining, concentrating, leaching, solvent extraction, on-site administration and general expenses, any off-site services essential to the operation, concentrate freight costs, marketing costs and property and severance taxes paid to state or federal agencies that are not profit-related. Treatment and refining charges on metal sales, which are typically recognized as a deduction component of sales revenues, are added to cash cost. Cash cost is calculated on a contained zinc sold basis, which indicates the percentage of zinc in metal sold, after the deduction of by-products credits attributable to mining operations, such as copper, silver, gold, and lead, which are deducted from total cash cost.

Sustaining cash cost, net of by-products credits: Sustaining cash cost, net of by-products credits is defined as the cash cost, net of by-products credits *plus* non-expansion capital expenditure, including sustaining health, safety and environment, modernization and other non-expansion-related capital expenditures.

All in sustaining cost, net of by-products credits: All in sustaining cost ("AISC") is defined as sustaining cash cost, net of by-products credits *plus* corporate general and administrative expenses, royalties and workers' participation.

Our cash cost and AISC net of by-products credits are measured with respect to zinc sold.

For mining operations, we present below cash cost, net of by-products credits, sustaining cash cost, net of by-products credits and all-in sustaining cost and a reconciliation to our consolidated financial statements.

For the year ended December 31, 2024

	Vazante	Morro Agudo [1]	Cerro Lindo	El Porvenir	Atacocha	Consolidation of Operations	Corporate and Others	Mining
	Operations (in millions of US$, unless otherwise indicated)							
Sales Volume (Zinc Contained in Concentrate)								
Tonnes	**140,740**	**7,394**	**85,903**	**50,278**	**10,239**	**294,554**		**294,554**
Cost of goods sold	124.9	18.4	348.9	210.9	85.7	788.8	4.6	793.4
On-site G&A	0.5	0.3	1.9	4.4	3.2	10.1		10.1
By-product credits	(14.2)	(5.6)	(382.8)	(166.8)	(76.3)	(645.7)	(32.7)	(678.4)
Treatment and refining charges	69.7	3.4	30.4	21.5	4.4	129.4		129.4
Selling expenses	0.3	0.1	1.5	1.1	0.1	3.2		3.2
Depreciation and amortization	(26.4)	(0.7)	(75.6)	(55.4)	(29.5)	(187.5)		(187.5)
Royalties	(2.3)	(0.4)	(5.5)	(2.8)	(0.9)	(11.8)		(11.8)
Workers' participation & bonus	(2.0)	(0.4)	(8.8)	(5.0)	(1.6)	(17.8)		(17.8)
Others	1.3	0.1	3.2	1.3	0.3	6.3		6.3
Cash cost net of by-product credits (sold)	151.9	15.1	(86.8)	9.3	(14.7)	(74.8)	(28.1)	46.7
Cash cost net of by-product credits (sold) (US$/tonne)	**1,079.2**	**2,041.0**	**(1,010.6)**	**185.4**	**(1,431.2)**	**254.1**		**158.6**
Non-expansion capital expenditure	25.4	0	49.0	77.3	13.1	164.8	43.0	207.9
Sustaining cash cost net of by-product credits (sold)	177.3	15.1	(37.8)	86.6	(1.6)	239.7	14.9	254.6
Sustaining cash cost net of by-product credits (sold) (per tonne)	**1,260.0**	**2,046.3**	**(440.3)**	**1,722.2**	**(152.4)**	**813.7**		**864.3**
Workers' participation & bonus	2.0	0.4	8.8	5.0	1.6	17.8		17.8
Royalties	2.3	0.4	5.5	2.8	0.9	11.8		11.8
Corporate G&A							45.1	45.1
AISC net of by-product credits (sold)								329.3
AISC net of by-product credits (sold) (per tonne)								**1,118.0**

(1) Considers only the four months of operations from January to April 2024.

For the year ended December 31, 2023

	Vazante	Morro Agudo	Cerro Lindo	El Porvenir	Atacocha	Consolidation of Operations	Corporate and Others	Mining
	Operations (in millions of US$, unless otherwise indicated)							
Sales Volume (Zinc Contained in Concentrate)								
Tonnes	**145,662**	**23,167**	**78,388**	**57,673**	**8,486**	**313,376**		**313,376**
Cost of goods sold	124.0	64.9	354.8	205.1	69.9	818.7	(3.2)	815.5
On-site G&A	0.5	0.5	0.7	1.5	1.0	4.2		4.2
By-product credits	(16.2)	(32.0)	(310.1)	(148.3)	(64.1)	(570.6)	24.5	(546.1)
Treatment and refining charges	114.2	14.9	41.6	34.9	5.2	210.8		210.8
Selling expenses	0.3	(0.1)	2.0	0.6	0.2	3.0		3.0
Depreciation and amortization	(27.4)	(5.0)	(86.2)	(45.7)	(17.3)	(181,6)	(0.1)	(181.7)
Royalties	(2.2)	(1.4)	(2.0)	(2.5)	(0.4)	(8.4)		(8.4)
Workers' participation & bonus	(1.9)	(1.0)	(5.2)	(2.8)	(0.9)	(11.7)		(11.7)
Others	0.5	0.1	(6.6)	(6.5)	(1.8)	(14.3)		(14.3)
Cash cost net of by-product credits (sold)	191.7	41.0	(10.9)	36.4	(8.1)	250.0	21.3	271.3
Cash cost net of by-product credits (sold) (US$/tonne)	**1,315.8**	**1,768.4**	**(138.6)**	**630.6**	**(959.7)**	**797.7**		**865.6**
Non-expansion capital expenditure	29.1	3.0	43.3	68.6	16.2	160.2	59.7	219.9
Sustaining cash cost net of by-product credits (sold)	220.8	43,9	32.4	105.0	8.1	410.1	81.0	491.1
Sustaining cash cost net of by-product credits (sold) (per tonne)	**1,515.5**	**1,896.7**	**413.1**	**1,820.8**	**949.4**	**1,308.8**		**1,567.2**
Workers' participation & bonus	1.9	1.0	5.2	2.8	0.9	11.7		11.7
Royalties	2.2	1.4	2.0	2.5	0.4	8.4		8.4
Corporate G&A							45.2	45.2
AISC net of by-product credits (sold)								556.4
AISC net of by-product credits (sold) (per tonne)								**1,775.4**

For the year ended December 31, 2022

	Vazante	Morro Agudo	Cerro Lindo	El Porvenir	Atacocha	Consolidation of Operations	Corporate and Others	Mining
	Operations (in millions of US$, unless otherwise indicated)							
Sales Volume (Zinc Contained in Concentrate)								
Tonnes	**131,527**	**18,700**	**85,910**	**52,001**	**9,560**	**297,699**		**297,699**
Cost of goods sold	115.9	63.7	397.4	167.9	75.4	819.4	(7.7)	811.7
On-site G&A	1.2	0.8	0.5	0.7	0.3	3.4		3.4
By-product credits	(10.3)	(22.6)	(351.2)	(123.3)	(72.2)	(579.7)	14.0	(565.7)
Treatment and refining charges	91.3	9.6	39.9	27.6	5.1	173.5		173.5
Selling expenses	0.4	1.4	1.8	0.6	0.5	4.7		4.7
Depreciation and amortization	(26.1)	(9.5)	(117.8)	(27.2)	(14.9)	(194.7)		(194.7)
Royalties	(2.1)	(1.4)	(5.6)	(3.8)	(0.9)	(13.8)		(13.8)
Workers' participation & bonus	(1.6)	(0.9)	(13.3)	(5.2)	(0.8)	(21.8)		(21.8)
Others	(8.9)	(1.4)	0.2	0.6	(7.3)	(16.9)		(16.9)
Cash cost net of by-product credits (sold)	159.7	39.7	(48.2)	37.8	(15.0)	174.1	6.3	180.4
Cash cost net of by-product credits (sold) (US$/tonne)	**1,214.2**	**2,125.3**	**(561.4)**	**727.7**	**(1,566.2)**	**584.7**		**605.9**
Non-expansion capital expenditure	41.9	6.8	42.5	36.7	4.5	132.4	41.6	174.0
Sustaining cash cost net of by-product credits (sold)	201.6	46.5	(5.8)	74.6	(10.5)	306.5	47.9	354.4
Sustaining cash cost net of by-product credits (sold) (per tonne)	**1,532.9**	**2,488.6**	**(67.1)**	**1,433.6**	**(1,096.6)**	**1,029.4**		**1,190.4**
Workers' participation & bonus	1.6	0.9	13.3	5.2	0.8	21.8		21.8
Royalties	2.1	1.4	5.6	3.8	0.9	13.8		13.8
Corporate G&A							52.1	52.1
AISC net of by-product credits (sold)								442.0
AISC net of by-product credits (sold) (per tonne)								**1,484.7**

Smelting operations

Cash cost, net of by-products credits: For our smelting operations, cash cost, net of by-products credits includes all the costs of smelting, including costs associated with labor, net energy, maintenance, materials, consumables and other on-site costs, as well as raw material costs. Cash cost is calculated on a contained zinc sold basis after the deduction of by-products credits attributable to smelting operations.

Sustaining cash cost, net of by-products credits: Sustaining cash cost, net of by-products credits is defined as the cash cost, after by-products credits *plus* non-expansion capital expenditure, including sustaining health, safety and environment, modernization and other non-expansion-related capital expenditures.

All in sustaining cost, net of by-products credits: All in sustaining cost is defined as sustaining cash cost, net of by-products credits *plus* general and administrative expenses and workers' participation.

Our cash cost and AISC net of by-products credits are measured with respect to contained zinc sold, not considering resale operations of zinc from third parties. For our smelting operations, we present below cash cost, net of by-products credits, sustaining cash cost, net of by-products credits and all in sustaining cost and a reconciliation to our consolidated financial statements.

For the year ended December 31, 2024

	Três Marias	Juiz de Fora	Cajamarquilla	Consolidation of Operations	Corporate and Others	Smelting
	Operations (in millions of US$, unless otherwise indicated)					
Sales Volume (Zinc Contained in Products)						
Tonnes	**180,205**	**82,592**	**326,469**	**589,315**		**589,315**
Cost of goods sold	522.7	266.3	1,021.1	1,810.1	(4.0)	1,806.1
Cost of services rendered	(13.5)	(5.3)	(43.7)	(62.5)		(62.5)
On-site G&A	2.1	1.2	5.8	9.1		9.1
Depreciation and amortization	(26.5)	(14.2)	(50.0)	(90.7)		(90.7)
By-product credits	(16.0)	(26.8)	(147.2)	(190.0)	4.0	(186.1)
Workers' participation & Bonus	(8.3)	(1.8)	(6.8)	(16.9)		(16.9)
Others	5.3	3.7	25.9	35.0		35.0
Cash cost, net of by-product credits (sold)	465.9	223.1	805.0	1,494.0		1,494.0
Cash cost, net of by-product credits (sold) (per tonne)	**2,584.6**	**2,701.1**	**2,465.8**	**2,535.1**		**2,535.1**
Non-expansion capital expenditure	17.6	12.4	45.7	75.7	(2.9)	72.9
Sustaining cash cost, net of by-product credits (sold)	483.5	235.5	850.7	1,569.7	(2.9)	1,566.8
Sustaining cash cost net of by-product credits (sold) (per tonne)	**2,682.2**	**2,851.3**	**2,605.9**	**2,663.6**		**2,658.7**
Workers' participation	8.3	1.8	6.8	16.9		16.9
Corporate G&A					30.7	30.7
AISC net of by-product credits (sold)						1,614.4
AISC net of by-product credits (sold) (per tonne)						**2,739.5**

For the year ended December 31, 2023

	Três Marias	Juiz de Fora	Cajamarquilla	Consolidation of Operations	Corporate and Others	Smelting
	Operations (in millions of US$, unless otherwise indicated)					
Sales Volume (Zinc Contained in Products)						
Tonnes	**174,790**	**81,939**	**325,927**	**582,656**		**582,656**
Cost of goods sold	501.9	268.5	960.3	1,730.7	(5.3)	1,725.5
Cost of services rendered	(22.4)	(9.5)	(43.5)	(75.4)		(75.4)
On-site G&A	1.4	0.7	5.5	7.5		7.5
Depreciation and amortization	(23.0)	(14.0)	(43.1)	(80.1)		(80.1)
By-product credits	(14.2)	(26.9)	(135.6)	(176.7)	5.3	(171.4)
Workers' participation & Bonus	(1.5)	(1.6)	(10.8)	(13.9)		(13.9)
Others	0.8	0.1	10.9	11.8		11.8
Cash cost, net of by-product credits (sold)	443.0	217.3	743.7	1,404.0	0.0	1,404.0
Cash cost, net of by-product credits (sold) (per tonne)	**2,534.6**	**2,651.7**	**2,281.7**	**2,409.6**		**2,409.6**
Non-expansion capital expenditure	22.2	14.4	34.5	71.1	13.9	85.0
Sustaining cash cost, net of by-product credits (sold)	465.2	231.7	778.1	1,475.1	13.9	1,489.0
Sustaining cash cost net of by-product credits (sold) (per tonne)	**2,661.6**	**2,828.0**	**2,387.5**	**2,531.6**		**2,555.5**
Workers' participation	1.5	1.6	10.8	13.9		13.9
Corporate G&A					27.1	27.1
AISC net of by-product credits (sold)						1,530.0
AISC net of by-product credits (sold) (per tonne)						**2,625.9**

For the year ended December 31, 2022

	Três Marias	Juiz de Fora	Cajamarquilla	Consolidation of Operations	Corporate and Others	Smelting
	Operations (in millions of US$, unless otherwise indicated)					
Sales Volume (Zinc Contained in Products)						
Tonnes	**180,029**	**83,084**	**334,076**	**597,189**		**597,189**
Cost of goods sold	621.3	325.2	1,219.4	2,165.9	(6.1)	2,159.7
Cost of services rendered	(19.5)	(9.9)	(57.0)	(86.4)		(86.4)
On-site G&A	2.0	1.1	6.1	9.2		9.2
Depreciation and amortization	(19.1)	(13.1)	(47.2)	(79.5)		(79.5)
By-product credits	(9.5)	(36.8)	(180.4)	(226.7)	6.1	(220.5)
Workers' participation & Bonus	(1.6)	(1.3)	(13.7)	(16.6)		(16.6)
Others	(13.5)	(6.0)	14.7	(4.8)		(4.8)
Cash cost, net of by-product credits (sold)	560.0	259.0	941.9	1,761.0		1.761.0
Cash cost, net of by-product credits (sold) (per tonne)	**3,110.9**	**3,117.6**	**2,819.5**	**2,948.8**		**2,948.8**
Non-expansion capital expenditure	42.1	22.4	45.3	109.9	(18.9)	90.9
Sustaining cash cost, net of by-product credits (sold)	602.2	281.4	987.2	1,870.9	(18.9)	1,851.9
Sustaining cash cost net of by-product credits (sold) (per tonne)	**3,344.9**	**3,387.4**	**2,955.1**	**3,132.8**		**3,101.1**
Workers' participation	1.6	1.3	13.7	16.6		16.6
Corporate G&A	0.0	0.0	0.0	0.0	31.0	31.0
AISC net of by-product credits (sold)						1,889.6
AISC net of by-product credits (sold) (per tonne)						**3,180.9**

LIQUIDITY AND CAPITAL RESOURCES

Overview

In the ordinary course of business, our principal funding requirements are for working capital, capital expenditures relating to maintenance and expansion investments, servicing our indebtedness and distributions to our shareholders. We typically meet these requirements through operational cash flows, short, mid or long-term borrowings from private banks, the Brazilian Economic and Social Development Bank (*Banco Nacional de Desenvolvimento Econômico e Social*, or "BNDES"), international export credit agencies, and the issuance of debt securities in the international and local capital markets.

In April 2024, we successfully extended our debt maturity profile through the issuance of new debentures and bonds. The debenture issuance by Nexa Brazil, an ESG-linked instrument with a 6-year term, amounted to R$650 million (approximately US$130 million). This issuance signified our entry into the Brazilian debenture market and underscored our commitment to ESG principles. The new bond offering consisted of US$600 million 6.750% senior unsecured notes due in April 2034. The net proceeds of this offering were directed towards funding a cash tender offer for part of our existing notes due in 2027 and in 2028. These strategic moves allowed us to optimize our financial structure, diversify our funding sources, enhance our liquidity position and extend our debt maturity profile, with a current average debt maturity of approximately 6 years. We continue to review our capital structure and debt maturities, and we may undertake further initiatives in connection thereto.

Our financing strategy is to fund our necessary capital expenditures at competitive cost and to preserve our liquidity while meeting our debt payment obligations. We believe that our cash and cash equivalents on hand, cash from operations and available borrowings will be adequate to meet our capital expenditure requirements and liquidity needs for our current obligations. We may require additional capital to meet our longer-term liquidity and future growth requirements. Although we believe that our sources of liquidity are adequate, weaker economic conditions in Brazil, Peru or globally could materially and adversely affect our business and liquidity.

Sources of funds

Our principal sources of funds are cash flows from operations and borrowings. The availability of cash flows from operations is affected by our working capital requirements and investment activities, as well as a need to service our indebtedness. In 2024, we generated net cash provided by operating activities of US$349.7 million, a 36.5% increase as compared to US$256.2 million in 2023, which was largely due to an increase in income before income tax.

Uses of funds

In the ordinary course of business, our principal funding requirements are related to capital expenditures and debt service. In 2024, we also used funds to invest towards sustaining our current operations, for our working capital needs, taxes, interest to service debt and debt payment.

Capital expenditures

Our capital expenditures in 2024 amounted to US$276.8 million, lower than our annual guidance due to the decrease in sustaining investments as a result of positive foreign exchange impacts, and continued efforts and initiatives to optimize capital allocation.

Non-expansion projects, which includes sustaining and HS&E, among others, accounted for 99.2% of the total capital expenditures (or US$274.5 million) in 2024, including the amounts under "Reconciliation to Financial Statements" which are mainly related to advance payment of imported materials, capitalization of interest net of advanced payments and tax credits.

For 2025, we have budgeted US$347.0 million to invest in our operations and projects that are currently underway.

Expenses related to mineral exploration and project evaluation

In 2024, mineral exploration expenses were US$48.9 million, mainly driven by brownfield and greenfield projects for drilling activities and geological analysis. We continue with efforts to replenish and increase available mineral resources as part of our long-term strategy, advancing mineral exploration activities, focusing mainly on identifying new ore bodies through drilling campaigns and preserving our investments in greenfield projects and business development analysis. In 2025, we estimate to spend US$70.0 million on expenses relating primarily to advance our exploration projects in brownfield and greenfield drilling programs, to expand the mineral resources and mineral reserves inventory, and on the development of our copper portfolio in exploration stage.

In 2024, project evaluation expenses amounted to US$15.4 million, including approximately US$8.4 million directed towards brownfield projects in FEL1 and FEL2 stages. In 2025, we estimate to spend US$18.0 million on an IT system simplification project, a project to extend the life of the tailings dam at the El Porvenir mine, in addition to several other projects, including corporate IT initiatives, potential growth projects, and other projects across our business units.

Distributions

In December 2024, our Board of Directors approved a new dividend policy, effective as of January 1, 2025. Under this policy, we aim to distribute annual dividends, subject to our governance framework and the availability of distributable amounts as per Luxembourg law. The annual dividend amount will be determined based on several factors, including: (i) cash balance; (ii) free cash flow and earnings generated during the year; (iii) leverage, measured by the Net Debt to Adjusted EBITDA ratio; (iv) capital investment programs and other capital allocation decisions; (v) expected future cash flows from operations; (vi) market volatility; and (vii) strategic planning considerations. In line with these factors, Nexa targets an annual dividend of up to 20% of free cash flow pre-events, with a minimum payment of US$0.08 per common share.

For the year ended December 31, 2024, the Board of Directors proposed a share premium reimbursement equivalent to 20% of the free cash flow pre-events, amounting to approximately US$13.4 million or US$0.1011 per share. This proposal remains subject to approval by the annual general shareholder meeting, which is expected to take place on May 8, 2025. If approved, the share premium reimbursement is expected to occur on or around June 24, 2025, for shareholders of record as of June 10, 2025.

Debt

As of December 31, 2024, our total outstanding consolidated indebtedness (current and non-current loans and financings, including accrued interest as of December 31, 2024) is US$1,762.6 million, consisting of US$50.9 million of short-term indebtedness, including the current portion of long-term indebtedness (or 2.9% of the total indebtedness), and US$1,711.7 million of long-term indebtedness (or 97.1% of the total indebtedness). Our outstanding consolidated indebtedness increased by 2.1% compared to December 31, 2023.

Our U.S. dollar denominated indebtedness as of December 31, 2024 was US$1,465.4 million (or 83.1% of our total indebtedness), our Brazilian real denominated indebtedness was US$297.2 million (or 16.9% of our total indebtedness).

As of December 31, 2024, US$531.5 million, or 30.2% of our total consolidated indebtedness, bears interest at floating rates, including US$297.2 million of *real*-denominated indebtedness that bear interest at rates based on the CDI rate, SELIC rate or *Taxa de Juros de Longo Prazo* ("TJLP") and *Taxa de Longo Prazo* ("TLP") rates (the long-term interest rates set by the Brazilian National Monetary Council and the basic costs of financing of the BNDES), and US$234.3 million of foreign currency-denominated indebtedness that bear interest at rates based on SOFR.

Only 2.9% (US$50.9 million) of the total debt matures in 2025, 46.2% (US$814.3 million) matures between 2026 and 2028, 12.7% (US$224.5 million) matures between 2029 and 2030, while 38.2% (US$672.9 million) of total debt matures in and after 2031.

We continuously assess short- and mid-term debt to finance operational activities, ensuring business continuity, efficient working capital management and a stable maturity profile of our debt. Actions related to our capital structure, including, but not limited to, improving the profile of outstanding debt, extending maturity and assessing financing alternatives are constantly under evaluation.

The following table sets forth selected information with respect to our total outstanding consolidated indebtedness as of December 31, 2024.

		As of December 31, 2024		
Indebtedness	**Average Annual Interest Rate**	**Current Portion [1]**	**Long-term Portion**	**Total**
			(in millions of US$)	
Eurobonds – USD	Pre-USD + 6.42%	20.4	1,210.7	1,231.1
BNDES	TJLP + 2.82% SELIC + 3.10% TLP – IPCA + 5.85%	23.1	154.3	177.4
Export Credit Notes	SOFR + 2.4% SOFR + 2.5%	2.4	181.7	184.1
Debentures	CDI + 1.50%	3.0	104.3	107.3
Other	SOFR + 2.20%	2.0	60.7	62.7
Total		**50.9**	**1,711.7**	**1,762.6**

(1) Includes principal and interest.

As of December 31, 2024, US$177.4 million remains outstanding under our loan agreements with BNDES regarding to Nexa Brazil's facility agreements which are guaranteed only by Nexa Resources.

As of December 31, 2024, some of our debt instruments contain other covenants that restrict, among other things, our ability and the ability of certain of our subsidiaries to incur liens and merge or consolidate with any other person or sell or otherwise dispose of all or substantially all its assets. These instruments also contained covenants requiring that we comply with certain financial ratios, including:

- a debt service coverage ratio equal to or higher than 1.0;
- a net debt to EBITDA ratio equal to or lower than 4.0; and
- an equity to total assets ratio equal to or higher than 0.3.

As of December 31, 2024, we did not comply with one of the financial covenants included in the BNDES loan agreements, the capitalization ratio, which is measured as equity to total assets ratio, and must be equal to or higher than 0.3. This non-compliance was primarily due to losses accumulated in the last three years, impairment losses, one-off events, and negative impacts resulting from the extended ramp-up phase of Aripuanã. As per the loan agreements, we have the right to cure the breach by presenting a guarantee, prior to December 31, 2024, we obtained a bank guarantee in accordance with the loan agreements which guaranteed us the right to classify the debt as long-term. Subsequently, in February 2025, we obtained a waiver from BNDES for the period from December 31, 2024 to December 31, 2025.

Short-term indebtedness and revolving credit lines

Our consolidated short-term indebtedness, including the current portion of our long-term debt, was US$50.9 million, including principal and interest, as of December 31, 2024.

We have a US$320 million sustainability-linked revolving credit facility, to support our liquidity profile, and the applicable margin may vary subject to compliance with carbon reduction key performance indicators, reflecting our commitment to reducing our carbon footprint. Such efforts are consistent with our ESG ambitions, targeting net-zero greenhouse gas emissions by 2050, in alignment with the Paris Agreement. The new facility is guaranteed by Nexa Brazil and Nexa CJM and will mature on October 20, 2028, and amounts drawn are subject to an initial interest rate of 1.60% plus Term SOFR per annum. As of December 31, 2024, no amounts were drawn under this facility.

In March 2024, we entered into a 4131 Note agreement with a total principal amount of R$150 million (approximately €30 million), bearing an annual gross interest rate of 5.6%, and maturing in June 2024. Additionally, we established a Global Derivatives Contract to hedge the currency fluctuation of the Euro, with a cost of CDI plus 0.90%. This debt was settled in cash on June 3, 2024.

Also in March 2024, we extended one of our remaining Export Credit Notes, originally maturing in October 2024, by five years. The extended note bears a cost of TERM SOFR plus 2.4% and has a total initial facility amount of US$90.0 million.

We believe that, based on current market conditions and our liquidity position, we will continue to secure sufficient credit to finance our working capital needs. See "Risk factors— Financial risk— Our business requires substantial capital expenditures and is subject to financing risks."

Long-term indebtedness

The following discussion briefly describes our principal financing agreements as of the date of this annual report. For additional information, see Note 24 to our consolidated financial statements.

- *Debentures.* In April 2024, our wholly-owned subsidiary Nexa Brazil issued 650,000 non-convertible ESG-linked debentures, each with a par value of R$1,000.00, totaling R$650 million (approximately US$130 million). The debentures mature on March 28, 2030, are unsecured, bullet, and bear interest at 100% of CDI interest rate plus 1.50% per annum. The debentures were characterized as debentures linked to ESG targets, aligning with the same ESG framework of our US$320 million sustainability-linked revolving credit facility mentioned above. As of December 31, 2024, our outstanding principal amount under this Debenture was US$107.3 million.

- *4131 Note.* In December 2023, we issued a 4131 Note in the total principal amount of US$50 million with maturity date of five years and costs of 2.20% plus TERM SOFR. As of December 31, 2024, our outstanding principal amount under this 4131 Note was US$50.2 million.

- *Export Credit Notes.* In March 2024, we extended by five years one of our remaining Export Credit Notes which was maturing on October 2024 with a cost of TERM SOFR plus 2.4%, in the total initial facility amount of US$90.0 million. As of December 31, 2024, our outstanding principal amount under these Export Credit Notes was US$92.3 million.

- *Export Credit Notes.* In March 2022, we issued Export Credit Notes in the total principal amount of US$90 million with a maturity date of five years and costs of 2.5% plus TERM SOFR. As of December 31, 2024, our outstanding principal amount under our Export Credit Notes was US$91.8 million.

- *Nexa Resources Bonds due 2027.* In May 2017, we issued an aggregate principal amount of US$700.0 million in bonds maturing in 2027 and bearing interest at 5.375% per year. The bonds are guaranteed by our subsidiaries Nexa Brazil, Nexa Peru and Nexa CJM. In April 2024, we repurchased approximately 69.2% of the outstanding principal amount of the 2027 Notes. As of December 31, 2024, the outstanding amount under these bonds was US$217.0 million.

- *Nexa Resources Bonds due 2028.* In June 2020, we issued an aggregate principal amount of US$500.0 million in bonds maturing in 2028 and bearing interest at 6.500% per year. The bonds are guaranteed by our subsidiaries Nexa Brazil, Nexa Peru and Nexa CJM. In April 2024 we repurchased approximately 19.9% of the outstanding principal amount of the 2028 Notes. As of December 31, 2024, the outstanding amount under these bonds was US$410.0 million.

- *Nexa Resources Bonds due 2034*. On April 9, 2024, we issued an aggregate principal amount of US$600.0 million in senior unsecured notes maturing in 2034 and bearing interest at 6.750% per year. The bonds are guaranteed by Nexa Brazil and Nexa CJM. The net proceeds of this offering were used to fund cash tender offers for Nexa's existing bonds due 2027 and 2028, which were validly tendered and accepted for purchase pursuant to the tender offers. As of December 31, 2024, the outstanding amount under these notes was US$604.2 million.

- *BNDES - ESG linked credit line.* In June 2024, Nexa Brazil drew upon an ESG linked credit line from BNDES amounting to R$200.0 million, with a term of approximately 8 years, maturing in March 2032. The credit line carries interest rate of IPCA plus 5.4% p.a. and a spread of 1.84%. Following a 2-year grace period, amortization of the loan will occur in 72 consecutive installments. After the 2-year grace period, the spread rate of 1.84% may be reduced to 1.44% if ESG goals are met, otherwise, the rate is will increase to 2.84%. As of December 31, 2024, our outstanding principal amount under this loan agreement was US$31.7 million.

- *BNDES - Aripuanã Loan.* We have obtained a multi-tranche Credit Facility Agreement from BNDES for our Aripuanã Project with a cost of TLP plus 3.39%, maturing in 2040. As of December 31, 2024, our outstanding principal amount under this loan agreement was US$108.0 million.

- *BNDES – Revolving credit agreement I and II.* We have obtained a multi-tranches Credit Facility Agreement from BNDES for our several projects (mainly Vazante Mine Deepening) with a cost of TLP plus 5.13%, SELIC plus 3.10%, TJLP plus 2.82% and TLP - IPCA plus 5.26%, with the final tranche maturing in 2028. As of December 31, 2024, our outstanding principal amount under these loan agreements was US$37.7 million.

- *FINEP.* In December 2014, Nexa Brazil obtained a loan from the Brazilian Financing Agency for Studies and Projects (*Financiadora de Estudos e Projetos* or "FINEP"), to finance the research and development of various projects. As of December 31, 2024, our outstanding principal amount under this loan agreement was US$12.5 million.

The following table sets forth selected information with respect to Nexa Brazil's principal long-term financings with BNDES and our outstanding amount under these financings as of December 31, 2024.

Indebtedness	Borrower	Guarantor	Interest Rate	Payments Commencing on	Maturity Date	Principal Amount Outstanding As of December 31, 2024
						(in millions of US$)
R$200.0 million ESG-linked credit line	Nexa Brazil	Nexa Resources	IPCA plus 7.35%	April 15, 2026	March 15, 2032	31.7
Total						**31.7**
R$1,000.0 million BNDES Revolving Credit Agreement I	Nexa Brazil	Nexa Resources	TLP plus 5.13% per annum	January 15, 2019	December 15, 2028	6.3
Total						**6.3**
R$1,200.0 million BNDES Revolving Credit Agreement II[1]	Nexa Brazil	Nexa Resources	SELIC plus 3.10% per annum	October 15, 2021	September 15, 2026	13.0
	Nexa Brazil	Nexa Resources	TJLP plus 2.82% per annum	September 15, 2017	September 15, 2026	6.3
	Nexa Brazil	Nexa Resources	TLP – IPCA plus 5.26% per annum	January 15, 2019	December 15, 2028	12.1
Total						**31.4**
Credit Facility Agreement	Nexa Brazil	Nexa Resources	TLP plus 5.52% per annum	March 15, 2023	August 15, 2040	108.0
Total						**108.0**
Total BNDES Long-Term Indebtedness						**177.4**

[1] Consists of three tranches.

Cash flows

The table below presents our cash flows from operating activities, investing activities and financing activities for the years ended December 31, 2024 and 2023.

	For the Year Ended December 31,	
	2024	2023
	(in millions of US$)	
Consolidated Statement of Cash Flows Information		
Net cash flows provided by (used in):		
Operating activities	349.7	256.2
Investing activities	(237.6)	(270.4)
Financing activities	61.9	(34.6)
Foreign exchange effects on cash and cash equivalents	(10.8)	8.2
Increase (decrease) in cash and cash equivalents	**163.3**	**(40.6)**
Cash and cash equivalents at the beginning of the year	457.3	497.8
Cash and cash equivalents at the end of the year	620.5	457.3

In 2024, our net cash flow provided by operating activities was US$349.7 million, primarily due to positive operating cash flows from our operations in addition to lower income tax payments, and interest and foreign exchange effects.

In 2024, our net cash flow used in investing activities was US$237.6 million to maintain the sustainability of our business and invest in our growth, mainly related to sustaining investments related to mine development and the acquisition, replacement, and repairs of equipment in our operations.

In 2024, our net cash flow provided by financing activities was US$61.9 million as a result of our new bond offering, a debenture issuance, and the BNDES ESG credit line, which all form part of our liability management strategy for 2024.

As a result, at December 31, 2024, our cash and cash equivalents were US$620.5 million, US$163.3 million higher compared to our cash and cash equivalents at December 31, 2023.

RISK MANAGEMENT

Risk management is considered one of the key points in our business strategy and contributes to value creation and increasing the level of confidence in Nexa by its main stakeholders, including shareholders, employees, customers, suppliers and the local communities.

As a result, we have adopted an Enterprise Risk Management ("ERM") Policy, that describes Nexa's Risk Management Model, and its activities are an integral part of the processes in our operational units, corporate departments and projects, and provides support for decision-making by our executive officers and Board of directors.

The risk assessment cycle is performed annually focusing on our strategy, operational aspects and key projects. We seek to identify material risks, which are then assessed with consideration of the potential health, safety, environmental, social, reputational, legal and financial impacts. By embedding risk management into our work processes and critical business systems, we work to ensure we make decisions based on our risk appetite, updated annually, on relevant inputs and valid data. The material risks identified during the risk management process are monitored and reported to the executive team and the Board of Directors. The oversight of risk, responses and mitigation actions are delegated to the various committees of the Board according to the nature of the risk and the respective board committee's area of responsibility. The Audit Committee is responsible for financial reporting, fraud and compliance risk as well as oversight of the risk management process, policies and procedures. The Audit Committee is also responsible for oversight of cybersecurity risk management, as described below. The Finance Committee is responsible for the financial risks as well as the oversight of the financial risk management policy as described below. The Compensation, Nominating and Governance Committee is responsible for the mitigation of risks associated with the Company's compensation policies, among others. The Sustainability and Capital Projects Committee monitors compliance with applicable laws and policies and oversight the suitability and effectiveness of the Company's risk management processes with respect to sustainability matters and capital projects matters, including but not limited to, tailings facility management and emergency response plans.

Financial risk

We consider market risk to be the potential loss arising from adverse changes in market rates and prices. We are exposed to several market risks arising from our normal business activities. These market risks, which are beyond our control, principally involve the possibility that changes in commodity prices, interest rates or exchange rates will adversely affect the value of our inventory, financial assets and liabilities or future cash flows and earnings. For information on our risk management policies, see Note 12 to our consolidated financial statements.

Our financial risk management policy seeks to preserve our liquidity and protect our cash flow and its operating components (revenues and costs), as well as financial components (financial assets and liabilities) against adverse credit and market events such as fluctuations in currency and interest rates.

A significant portion of the products we sell are commodities, with prices based on international indices and denominated in U.S. dollars. A portion of our costs, however, are denominated in *reais* and *soles*, and therefore leads to a mismatch of currencies between our revenues and costs. Additionally, our indebtedness is based on different indices and currencies, which may impact our cash flows.

Our current financial risk management policy includes:

- Foreign Exchange Exposure Management. Foreign exchange exposure is our exposure to fluctuations in the currencies that make up our commercial, operational and financial relations (the *real* and *sol*), and that may impact our U.S. dollar cash flow. All actions in the financial risk management process are intended to hedge our cash flow in U.S. dollars, to maintain our ability to pay our financial obligations and to comply with liquidity and indebtedness levels defined by our management team. Our foreign exchange hedge mechanisms are based on the foreign exchange exposure that is projected at least for 12 months after a reference date.

- Interest Rate Exposure Management. Exposure to the interest rate is our exposure to fluctuations in each of the indices of interest rates (mainly CDI, SOFR and TJLP) from loans and financing transactions and financial investment that may impact our cash flow. Interest rate fluctuations would also result in gains or losses in the market value of our fixed rate debt portfolio due to differences in market interest rates and the rates at the execution of the debt agreements.

- Commodity Exposure Management. Exposure to commodity prices is our exposure to income and operating costs fluctuations due to changes in the reference prices for commodities (*e.g.*, zinc, copper, silver) based on demand, production capacity, producers' inventory levels and commercial strategies and the availability of substitutes in the global market. We calculate our exposure at least for 12 months after a reference date, considering any derivative financial instrument that has a certain commodity as the underlying asset.

- Counterparties' and Issuers' Risk Management. This policy establishes exposure limits for financial and non-financial institutions that are counterparties of financial transactions and/or issuers of debt securities. The purpose of our counterparties' and issuers' risk management is to mitigate the occurrence of negative impacts on our cash flows from the non-fulfillment of financial obligations by these issuers and counterparties. In the case of financial investments (cash allocation), we measure exposure to credit risk of issuers by the sum of gross balances of financial investments. In the case of derivative transactions, the credit risk exposure of a certain counterparty and transaction is measured by the pre-settlement risk using statistical models. Exposure limits are determined based on ratings assigned by rating agencies and the equity of the relevant financial institution.

- Liquidity and Financial Indebtedness Management. This policy establishes guidelines for managing our liquidity and financial indebtedness. The main instrument for measuring and monitoring liquidity is a cash flow projection, considering a minimum projection period of 12 months from the reference date. Liquidity and debt management considers as an objective the comparable metrics provided by global credit rating agencies for investment grade entities. With respect to indebtedness, metrics considered compatible with the relevant objective are considered.

All proposals must comply with the guidelines and rules set forth in our Financial Risk Management Policy and subsequently submitted for review by our Finance Committee and then for our Board of directors' approval, under the governance structure set forth in our Financial Risk Management Policy.

Foreign exchange risk

We are subject to foreign exchange risks resulting from the fluctuation of the *real* and the *sol* against the U.S. dollar, our functional currency. All actions in the financial risk management process related to our foreign exchange exposure are intended to hedge our cash flow in U.S. dollars, to maintain our ability to pay our financial obligations and to comply with liquidity and indebtedness levels defined by our management. We are also exposed to financial risk associated with changes in foreign currency exchange rates as certain costs incurred are in currencies other than our functional currency.

Assuming an exchange rate appreciation or devaluation of 10% of the U.S. dollar against the real as of December 31, 2024, we estimate that our Adjusted EBITDA for the year would have increased or decreased by US$60 million for 2024. This calculation assumes that each exchange rate would change in the same direction relative to the U.S. dollar. In addition to the direct effects of changes in exchange rates, changes in exchange rates may also affect the volume of sales as other market participants become more or less competitive. This sensitivity analysis does not factor in a potential change in sales levels or actions that management could take to manage the potential impact. Accordingly, the actual effect of exchange rate fluctuations will vary from period to period. However, assuming all other factors are held constant, we would expect future fluctuations like those analyzed above to have a similar potential impact on our results for future periods. See "Forward-looking statements."

Interest rate risk

A portion of our outstanding debt bears interest at variable rates and, accordingly, is sensitive to changes in interest rates. Based upon our indebtedness as of December 31, 2024, an increase/(decrease) in SOFR of 25% would impact our net income (loss) before income tax for the year and cash flows by US$2.5/(2.5) million. We calculate our exposure to fluctuations in interest rates at least 12 months after a reference date, considering any derivative financial instrument that has certain index as the underlying asset. Based on these exposures, we prepare financial protection proposals, which are submitted for our Finance Committee's approval. The hedges of interest rates, in general, seek to exchange fixed interest rate to floating interest rate or vice versa.

Metal price sensitivity

We are subject to financial risks arising from the volatility of prices of zinc, copper, lead and silver, and to a lesser extent gold. Assuming that expected metal production and sales are achieved, that tax rates are unchanged, and giving no effect to potential hedging programs, metal price sensitivity factors would indicate the following change in our 2024 Adjusted EBITDA (as previously defined) attributable to us resulting from metal price changes.

	Zinc	Copper	Silver
Change in metal price (in percentage)	10.0	10.0	10.0
Change in Adjusted EBITDA (in millions of US$)	41.7	29.8	26

Derivative instruments

To hedge against financial risk, we enter derivative transactions under our Financial Risk Management Policy. Those transactions are carried out in the over-the-counter market under master agreements such as International Swaps and Derivative Association and Brazilian *Contrato Geral de Derivativos* (“CGD”) Agreements.

None of the derivative transactions we are partying to as of December 31, 2024, has corporate guarantees or requires margin calls or any kind of collateral. None of the derivatives we were party to as of December 31, 2024, were entered into for speculative or arbitrage purposes.

We have the following recurring hedge programs in place:

- Fixed price commercial transactions (customer hedge): Hedging transactions that convert sales at fixed prices to floating prices in commercial transactions with customers interested in purchasing products at fixed prices. The purpose of this strategy is to maintain the revenue flow of the business unit with prices linked to the LME prices. These operations usually relate to purchases of zinc for future settlement on the over-the-counter market.

- Hedges for mismatches of “quotation periods” (book hedge): Hedges that set prices for the different “quotation periods” between the purchases of certain inputs (metal concentrate) and the sale of products (mostly metals) arising from the processing of these inputs, or different “quotation periods” between the purchase and the sale of the same product. These operations usually relate to purchases and sales of zinc and silver for future trading on the over-the-counter market.

To execute our hedge programs, as well as any sporadic hedging demands, we and our subsidiaries mainly enter into average rate (Asian) forwards, collars and swaps and standard interest rate swaps. These are the types of derivatives applicable for the hedge of our exposures, according to our Financial Risk Management Policy.

We initially recognize derivative instruments at fair value on the date a derivative contract is entered into and subsequently re-measure at their fair value. The method of recognizing the resulting gain or loss depends on whether we designate the derivative as a hedging instrument, in the case of adoption of hedge accounting, and if so, the nature of the item being hedged. We adopt the hedge accounting procedure and designate certain derivatives as either:

- hedges of the fair value of recognized assets or liabilities or a firm commitment (fair value hedge); or

- hedges of a particular risk associated with a recognized asset or liability or a highly probable forecast transaction (cash flow hedge).

We document the relationship between hedging instruments and hedged items at the inception of the hedging transaction, as well as the risk management objective and strategy for the undertaking of the various hedge transactions. We also document our assessment, both at the inception of the hedge and on an ongoing basis, of whether the derivatives that are used in hedging transactions have been and will continue to be highly effective in offsetting changes in fair values or cash flows or fair values of hedged items.

Cybersecurity

Risk Management and Strategy

We maintain a comprehensive process for assessing, identifying, registering, addressing and managing material risks associated with cybersecurity that may impact our business, including risks related to disruption of business operations, financial reporting systems or our financial statements, as well as fraud, regulatory, reputational and business continuity risks.

Nexa prioritizes the identification and management of cyber risks, focusing on adopting controls, technologies and processes that support cybersecurity, developing IT systems and infrastructure, emphasizing the confidentiality and privacy of data and information and complying with legal and regulatory requirements. Nexa's cybersecurity risk management process includes the following:

- Adapting our cybersecurity risk management practices to ISO 27005 and the best practices outlined in the National Institute of Standards and Technology ("NIST") Framework. We adopted NIST's framework based on five pillars: Identification, Protection, Detection, Response and Recovery, and in collaboration with external partners, we assess our adherence to the NIST framework through an analysis of our cybersecurity processes and technologies. In 2024, we incorporated the "Bowtie methodology" into our risk management approach and cybersecurity controls, with a focus on prevention and mitigation, thereby enabling the visualization of risk materialization scenarios, associated root causes, preventive controls, and mitigating controls, along with respective consequences.

- Utilizing material components within our cybersecurity framework, such as firewalls, endpoint detect and response mechanisms, phishing tests and annual penetration and intrusion tests to identify threats and vulnerabilities that could be exploited by cybersecurity attacks and reviewing relevant tactics, techniques, and procedures to prepare for a cyber-attack;

- Involving a dedicated team of professionals who monitor and act on cybersecurity events and risks including the Information Technology and Automation Technology areas. This team is responsible for creating, implementing, overseeing, and managing controls provided for specific cybersecurity policies and procedures, in addition to presenting priorities and strategies for information and cyber security. This team is overseen by a Chief Information Security Officer ("CISO") who reports to the Cybersecurity committee ("COSEG");

- Providing requisite training and ensuring employees comply with cybersecurity programs and policies;

- Utilizing a comprehensive Cybersecurity Materiality Matrix to identify material cybersecurity incidents;

- Maintaining a comprehensive incident response plan in the event of a cyber-attack that consists of defined policies, processes, and protocols for identifying a cybersecurity attack, analyzing the materiality of a cyber incident, responding to and recovering the technological environment, communicating the incidents to internal parties, and if necessary or required under various regulatory regimes, external parties, and completing a closing analysis to identify possible improvements of processes and controls;

- Utilizing a cyber incident module in the Information Technology Service System to register incidents and conduct materiality analyses.

Governance

Board of directors and Audit Committee

Nexa's Board of directors has delegated direct oversight over cybersecurity matters to the Audit Committee. The Audit Committee is working with management to implement processes to: monitor cybersecurity matters; receive regular updates on cybersecurity tests, the incident response plan and the Company's cybersecurity policies and procedures from the COSEG; ensure that management is conducting regular risk assessments; receive periodic reports related to designated cybersecurity incidents from management; establish with management an agreed upon approach for communication during a cybersecurity incident; monitor material cybersecurity developments through update calls with management and provide guidance on key decisions; review and debrief with management on post-incident remediation; monitor the content and timing of required cybersecurity disclosures, as well as the Company's methodology and consistency in its materiality assessment used to disclose material cybersecurity incidents; ensure that the Company is in compliance with the regulations and rules related to cybersecurity, including but not limited to SEC rules; and encourage the Company to provide regular education and training to the Board, the Board committees and management on cybersecurity, consulting with outside experts when appropriate.

Management

The cybersecurity risk management processes described above are managed by the Management committee through COSEG. COSEG is the executive committee responsible for overseeing the Company's cybersecurity strategies and policies, including but not limited to, assessing and managing Nexa's material risks from cybersecurity threats. COSEG is composed of senior managers and executives of the Company, including the CIO and CISO. On a regular basis, the results of operational cybersecurity indicators are presented to COSEG by the CISO. Our cybersecurity management is established based on cybersecurity policies and processes, a dedicated cybersecurity budget, technological solutions, human resources, suppliers, and a departmental structure for cybersecurity. COSEG regularly reviews, tests, and updates cybersecurity processes and holds discussions on materiality determinations, ransomware attacks and cybersecurity breaches. Additionally, the Management committee monitors technological, industry, and public policy developments concerning cybersecurity risks, keeping abreast of evolving cybersecurity best practices. The Management committee considers whether engagement with external experts or law enforcement is necessary and conducts investigations to gain a comprehensive understanding of cyber breaches.

As of the date of this filing, Nexa has not identified any incidents that would be deemed material within the context of the SEC's requirements.

III. SHARE OWNERSHIP AND TRADING

MAJOR SHAREHOLDERS

As of March 27, 2025, Nexa Resources has 132,438,611 common shares outstanding, with par value of US$1.00 per share. The table below sets forth the list of our shareholders and their participation in our capital stock.

Votorantim S.A. is Nexa Resources' controlling shareholder. VSA does not have any different voting rights, but as long as it holds a majority of our voting stock, it can influence or control matters requiring approval by our shareholders, including the appointment of directors. VSA acquired all its shares in Nexa Resources on February 26, 2014.

Shareholder	Number	Share Capital (%)
VSA	85,655,128	64.68%
Public	46,783,483	35.32%
Total	**132,438,611**	**100.00%**

VSA

As of March 27, 2025, Hejoassu Administração S.A., or Hejoassu, is the sole shareholder of VSA's capital stock, which consists of 18,278,788,894 common shares. Hejoassu is indirectly wholly owned by a number of individuals, some of whom are related to our Board member Luís Ermíro de Moraes, through controlled companies.

RELATED PARTY TRANSACTIONS

We enter into transactions with related parties, including VSA and companies that are owned or controlled, directly or indirectly, by VSA, in our ordinary course of business. These transactions are conducted on an arm's length basis and in accordance with applicable laws and our corporate governance policies. See "Risk factors—Risks relating to our corporate structure—VSA has substantial control over us, which could limit our shareholders' ability to influence the outcome of important corporate decisions." In accordance with article 441-7 of the Luxembourg law of August 10, 1915 concerning commercial companies, as amended ("1915 Law"), any member of our Board of directors having a direct or indirect financial interest conflicting with that of Nexa Resources in a transaction put before the Board for consideration must advise the Board thereof and cause a record of such member's statement to be included in the minutes of the meeting. The director may not take part in these deliberations and at the next following general meeting of shareholders of Nexa Resources, before any other resolution is put to vote, a special report shall be made on any such conflicted transactions. This shall not apply where the decision of the Board relates to ordinary business entered into under normal market conditions. A similar rule is stated in the article 441-12 of the Law 1915 and applies to the members of the Management committee.

Nexa has controls in place in order to identify related parties on a quarterly basis and approve related party transactions in advance. Such controls include an analysis by the related party group, an internal committee, and in certain circumstances, the Audit Committee, which is required for the execution of related party transactions.

The table below sets forth the balances of our principal related party transactions as of the dates and periods indicated. The entities disclosed are entities part of the Votorantim Group. The transactions relate to shared project costs such as environmental protection; administrative services provided by the Center of Excellence (*Centro de Excelência*); sales of limestones and cement purchases, mainly for the Aripuanã project; purchases of energy to be used in Nexa Brazil operation units and construction services for the Aripuanã project, among others.

Related Party Transaction Balances	**As of December 31, 2024**
Related Party Assets	**(in millions of US$)**
Current assets	
Cash and cash equivalents	
Scotiabank Peru S.A.A.	42.4
Total	**42.4**
Trade Accounts Receivables	
Companhia Brasileira de Alumínio	0.3
Auren Comercializadora de Energía Ltda.	-
Votorantim Cimentos S.A.	0.6
Other	-
Total	**0.9**
Trade payables and leases	
Votorantim S.A.	0.1
Andrade Gutierrez Engenharia Group	-
Companhia Brasileira de Alumínio	0.1
Votorantim Cimentos S.A.	0.4
Auren Comercializadora de Energía Ltda.	0.9
Campos Novos Energia S.A.	7.1
Votorantim International CSC S.A.C	-
Scotiabank Peru S.A.A.	5.4
Other	-
Total	**14.0**
Dividends payable	
Other	3.7
Total	**3.7**
Related Party liabilities	
Votorantim International CSC S.A.C	0.5
Votorantim S.A	3.6
Other	0.1
Total	**4.2**

We summarize below some of our principal related party transactions.

Related Party Transactions	For the Year Ended December 31, 2024
Sales	**(in millions of US$)**
Companhia Brasileira de Alumínio	0.6
Auren Comercializadora de Energía Ltda.	1.1
Total	**1.7**
Purchases	
Votorantim S.A.	8.9
Andrade Gutierrez Engenharia Group	19.8
Companhia Brasileira de Alumínio	-
Auren Comercializadora de Energía Ltda.	6.3
Campos Novos Energia S.A.	51.9
Votorantim Cimentos S.A.	-
Votorantim International CSC S.A.C	-
Scotiabank Peru S.A.A.	0.3
Other	1.1
Total	**88.5**

Andrade Gutierrez Engenharia Group

As part of the execution of the Aripuanã project, in June 2019 we entered into a mining development services agreement with Andrade Gutierrez Engenharia S.A., in which one of our director's close family members may have significant influence at its holding level. Additionally, in June 2020, Nexa entered into one additional agreement with Consórcio Construtor Nova Aripuanã, a consortium of the Andrade Gutierrez group of companies, in connection with construction and operational services for the Aripuanã project. However, that director left Nexa in June 2024, and therefore, Andrade Gutierrez Engenharia S.A. ceased to be a related party.

Scotiabank Peru S.A.A.

We have cash and cash equivalents and incur in interest expenses on lease contracts with Scotiabank Peru S.A.A., a company in which one of our directors holds the position of Chairman of the Board of Directors and therefore may have significant influence.

Shared arrangements

We have entered into a number of shared services contracts with other entities in the Votorantim Group in an effort to achieve operational efficiencies. These include joint contracts for insurance coverage and information technology. Entities in the Votorantim Group with whom we maintain such contracts have access to a substantial level of information about us. In addition, VSA negotiates our insurance coverage at the level of the Votorantim group and we thus depend on choices made by VSA for selecting the service providers to be used for all insurances contracted by us, including coverage related to property, transport, liability, credit and engineering risk insurances. We retain the right of approval of contract renewal terms negotiated by VSA.

In addition, all executive officers participate in the *Fundação Senador José Ermírio de Moraes* (“FUNSEJEM”) pension fund, a private, closed and not-for-profit pension fund responsible for the management of the pension plans for the employees of companies linked to the Votorantim Group.

See “Risk Factors—Risks relating to our corporate structure—VSA has substantial control over us, which could limit our shareholders’ ability to influence the outcome of important corporate decisions.”

DISTRIBUTIONS

Distributions to our shareholders are subject to the requirements of Luxembourg law and the approval of our Board of directors or our shareholders, as applicable, and will depend on a number of factors, including, but not limited to, our cash balance, cash flow, earnings, capital investment plans, expected future cash flows from operations, our strategic plans and cash dividend distributions from our subsidiaries, as well as legal requirements and other factors we may deem relevant at the time. As of December 31, 2024, there were no contractual restrictions on our ability to make distributions to our shareholders. Subject to these considerations, based on our current dividend policy we target an annual dividend of up to 20% of our free cash flow pre-events (defined as free cash flow before considering any significant, non-recurring, or extraordinary events such as debt amortization, new funding, dividend payments, and other extraordinary payments), with a minimum payment of US$0.08 per common share.

Each common share entitles the holder to participate equally in distributions, unless the right to distributions has been suspended in accordance with our articles of association or applicable law.

Distributions in our common shares may be made in the form of either dividends or reimbursements of share premium. Under Luxembourg law, dividends are determined by a simple majority vote at a general shareholders' meeting based on the recommendation of our Board of directors. Furthermore, pursuant to our articles of association, the Board of directors has the power to declare interim dividends in the event of unexpected profits or non-recurring revenue increases (subject to certain requirements, including preparation of interim accounts), and/or proceed with reimbursements of share premium in accordance with the 1915 Law.

We and our subsidiaries are subject to certain legal requirements that may affect our ability to pay dividends or other distributions. Distributions to shareholders (including in the form of dividends or reimbursement of share premium) may only be made from amounts available for distribution in accordance with Luxembourg law, determined based on our standalone statutory accounts prepared under Luxembourg GAAP. Under Luxembourg law, the amount of a distribution paid to shareholders (including in the form of dividends or reimbursement of share premium) may not exceed the amount of the profits at the end of the last financial year plus any profits carried forward and any amounts drawn from reserves that are available for that purpose, less any losses carried forward and sums to be placed in reserve in accordance with Luxembourg law or our articles of association. Furthermore, no distributions (including in the form of dividends or reimbursement of share premium) may be made if at the end of the last financial year the net assets as set out in the standalone statutory accounts prepared under Luxembourg GAAP are, or following such a distribution would become, less than the amount of the subscribed share capital plus the non-distributable reserves. Distributions in the form of dividends may only be made from net profits and profits carried forward, whereas distributions in the form of share premium reimbursements may only be made from available share premium.

Luxembourg law also requires at least 5.0% of our net profits per year to be allocated to the creation of a legal reserve until such reserve has reached an amount equal to 10.0% of our issued share capital. If the legal reserve subsequently falls below the 10.0% threshold, at least 5.0% of net profits again must be allocated toward the reserve. The legal reserve is not available for distribution. As of December 31, 2024, the legal reserve is US$13,332,051.30.

The table below outlines the distributions paid or expected to be paid to our shareholders. In 2022, distributions were made in the form of both a cash dividend and share premium. In 2023, distributions were made solely in the form of share premium.

	For the Year Ended December 31,		
	2024	**2023**	**2022**
		(in millions of US$)	
Distributions to shareholders	13.4	25.0	50.0

For the year ended December 31, 2024, the Board of Directors has proposed a share premium reimbursement equivalent to 20% of the free cash flow pre-events, amounting to approximately US$13.4 million or US$0.1011 per share. This proposal remains subject to approval at the Annual General Shareholder Meeting, which is expected to take place on May 8, 2025. If approved, the share premium reimbursement is expected to occur on or around June 24, 2025, for shareholders of record as of June 10, 2025.

Distributions

Nexa Resources is a holding company and has no material assets other than its ownership of shares in its subsidiaries. When Nexa Resources pays a dividend or other distribution on its common shares in the future, it generally causes its operating subsidiaries to make distributions to it in an amount sufficient to cover any such dividends or distributions. The ability of subsidiaries of Nexa Resources to make distributions to Nexa Resources is subject to their capacity to generate sufficient earnings and cash flow and may also be affected by statutory accounting and tax rules in Brazil and Peru, as well as any conditions under the corporate law applicable to each subsidiary.

A Luxembourg withholding tax of 15.0% is generally due on dividends and similar distributions made by Nexa Resources to its shareholders. However, distributions on Nexa Resources' common shares that are sourced from a reduction of share capital or share premium should not be subject to Luxembourg withholding tax if Nexa Resources does not have distributable reserves or profits in its standalone statutory accounts prepared under Luxembourg GAAP and provided that such distributions are made for genuine economic reasons. See "Additional information—Taxation—Luxembourg tax considerations—Shareholders."

There is no law, governmental decree or regulation in Luxembourg that would affect the remittance of dividends or other distributions by Nexa Resources to non-resident holders of its common shares, other than withholding tax requirements. In certain limited circumstances, the implementation and administration of international financial sanctions may affect the remittance of dividends or other distributions. There are no specified procedures for nonresident holders to claim dividends or other distributions.

Computershare Trust Company, N.A. is the paying agent for shareholders who hold common shares listed on the NYSE. Dividends and other distributions on our common shares will be declared and paid in U.S. dollars.

TRADING MARKETS

Our publicly traded share capital consists of common shares with a par value of US$1.00 per share. Our common shares are publicly traded in the United States on the NYSE, under the ticker symbol NEXA. On March 27, 2025, there were 132,438,611 common shares issued and outstanding.

PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS

Nexa did not repurchase any shares during 2024. As of December 31, 2024, there were no authorized share buyback programs.

IV. CORPORATE GOVERNANCE, MANAGEMENT AND EMPLOYEES

CORPORATE GOVERNANCE

Our corporate governance model is aimed at facilitating the flow of information between our executives and other key decision-makers on our management team, specifically, our Board of directors, Board committees and Management committee. Our corporate governance model also provides a framework for the duties of our management team, including oversight of Nexa's performance and decision-making. Our main corporate governance activities include support for Board of directors, Board advisory committees and executive Board meetings (management committee); contribution to the process of preparing the annual report on governance practices; and elaboration of governance documents and updating of best practices.

Our corporate governance model is designed to ensure that the proper corporate governance principles are consistently applied within our organization. We have adopted certain corporate governance policies and practices that include internal rules for the Board of directors and key committees that have independent representation and leadership, including an audit committee and a compensation, nominating and governance committee. The charter for the CNG committee includes responsibility for reviewing and assessing the size, composition and operation of the Board of directors to ensure effective and independent decision making, advising on potential conflicts of interest situations and developing corporate governance guidelines and principles, in line with ESG standards. The disclosure set out below describes in further detail our approach to corporate governance.

Code of conduct

We work with all of our employees, as well as third parties who we work with, to ensure they behave in a manner consistent with our values, Code of Conduct and the key principles of our compliance program, particularly as these relate to the environment, human rights and labor related issues, health and safety, anti-bribery and corruption. The Code of Conduct reflects our commitment to the principles of anti-corruption, anti-money laundering, anti-terrorist financing, integrity, ethics, human rights, social and environmental responsibilities and antitrust policies based on laws in effect in the countries where we operate. Our directors and executives have certified that they have read and that they will comply with our Code of Conduct. Furthermore, our Board of directors periodically monitors compliance related topics. A Conduct committee is in charge of promoting the implementation of the code and supervising the application of disciplinary measures. The last update on our Code of Conduct occurred in 2021, since then we continued with its dissemination to current and new employees at a global level. In 2025, we expect to review our Code of Conduct and consequently issue a new version. In 2022, we also launched our Code of Conduct for Suppliers and started to disseminate it to any suppliers considered to be strategic vendors. In 2023, we launched our Code of Conduct for Customers and started disseminating it as well. In 2024, we continued to disseminate our Code of Conduct for Suppliers and Code of Conduct for Customers.

Anti-corruption, anti-money laundering and antitrust programs have been implemented, including, among other things, ethics and compliance training and an ethics hotline which enables employees and third parties to report misconduct. Information reported through our ethics hotline is investigated and following the investigation, disciplinary action may be taken, if necessary. We have not granted any implicit or explicit waivers from any provision of our Code of Conduct since its adoption.

Our Code of Conduct, Code of Conduct for Suppliers and compliance-related policies are publicly available on our website at https://www.nexaresources.com. We will disclose future amendments to, or waivers of, our Code of Conduct on the same page of our corporate website. Information contained on our website is not incorporated by reference into this report, and you should not consider it to be part of this report.

Foreign private issuer and controlled company exemptions

Because we are a foreign private issuer, the NYSE rules applicable to us are considerably different from those applied to U.S. companies. Accordingly, we have been, and expect to continue, taking advantage of certain exemptions from NYSE governance requirements provided in the NYSE rules for foreign private issuers. Subject to the items listed below, as a foreign private issuer we are permitted to follow home country practice in lieu of the NYSE's corporate governance standards. Luxembourg law does not require that a majority of our Board consist of independent directors or the implementation of a compensation committee or nominating and corporate governance committee. As a foreign private issuer, we must comply with four principal NYSE corporate governance rules: (i) we must satisfy the requirements of Exchange Act Rule 10A-3 relating to audit committees; (ii) our chief executive officer must promptly notify the NYSE in writing after any executive officer becomes aware of any non-compliance with the applicable NYSE corporate governance rules; (iii) we must provide the NYSE with annual and interim written affirmations as required under the NYSE corporate governance rules; and (iv) we must provide a brief description of any significant differences between our corporate governance practices and those followed by U.S. companies under NYSE listing standards.

In addition, for purposes of the NYSE rules, as VSA beneficially owns a majority of our outstanding common shares, we are a "controlled company." "Controlled companies" under those rules are companies of which more than 50.0% of the voting power is held by an individual, a group or another company. Accordingly, we are eligible to take advantage of certain exemptions from NYSE governance requirements provided in the NYSE rules. Specifically, as a controlled company under NYSE rules, we are not required to have a majority of independent directors or a compensation, nominating and corporate governance committee composed entirely of independent directors.

As described further above, we recognize that good corporate governance plays an important role in our overall success and in enhancing shareholder value and, accordingly, we have adopted certain corporate governance policies and practices that reflect these considerations. The following table briefly describes the significant differences between our practices and the practices of U.S. domestic issuers under NYSE corporate governance rules.

Section	NYSE corporate governance rule for U.S. domestic issuers	Our approach
303A.01	A listed company must have a majority of independent directors. "Controlled companies" and "foreign private issuers" are not required to comply with this requirement.	We are a controlled company because more than a majority of our voting power for the appointment of directors is controlled by VSA. We are a foreign private issuer because we are incorporated in Luxembourg. As a controlled company and foreign private issuer, we are not required to comply with the majority of independent director requirements. Four of our nine directors are independent. Our Board of directors has adopted internal rules equivalent to a charter. See "Corporate Governance, management and employees—Board of directors" for a description of our Board and processes our Board has implemented to promote the exercise of independent judgment.
303A.03	The non-management directors of a listed company must meet at regularly scheduled executive sessions without management.	We have no management directors.

303A.04	A listed company must have a nominating/corporate governance committee composed entirely of independent directors, with a written charter that covers certain minimum specified duties. “Controlled companies” and “foreign private issuers” are not required to comply with this requirement.	As a controlled company and foreign private issuer, we are not required to comply with the nominating/corporate governance committee requirements. However, we do have a compensation, nominating and governance committee composed of one independent director and three non-independent directors, which has adopted a committee charter. As set forth in the committee’s charter, this committee is responsible for, among other matters: • identifying individuals qualified to be nominated as members of the Board of directors; • suggesting names to fill any vacancies on the Board of directors; • developing corporate governance guidelines and principles; and • evaluating the performance and effectiveness of the Board of directors, the CEO and each of committees. See “Corporate Governance, management and employees—Board of directors—Committees of our Board of directors.”
303A.05	A listed company must have a compensation committee composed entirely of independent directors, with a written charter that covers certain minimum specified duties. “Controlled companies” and “foreign private issuers” are not required to comply with this requirement.	As a controlled company and foreign private issuer, we are not required to comply with the compensation committee requirements. However, we do have a compensation, nominating and governance committee composed of one independent directors and three non-independent directors, which has adopted a committee charter. As set forth in the committee’s charter, this committee is responsible for, among other matters: • reviewing and proposing new compensation models and changes to current compensation models; and • determining compensation of executive officers, directors and committee members. See “Corporate governance, management and employees—Board of directors—Committees of our Board of directors.”

303A.06 303A.07	A listed company must have an audit committee with a minimum of three independent directors who satisfy the independence requirements of Rule 10A-3 under the Exchange Act, with a written charter that covers certain minimum specified duties.	We have an audit committee composed of three members, all of whom qualify as independent under Rule 10A-3 and applicable NYSE standards. Each member of the Audit Committee also satisfies the financial literacy requirement under applicable standards. The Audit Committee has adopted a committee charter which was duly approved by our Board of directors. As set forth in the committee's charter, the committee shall assist the Board of directors in fulfilling its oversight responsibilities with respect to, among others: • quality and integrity of our financial reporting and related financial disclosures; • the effectiveness of our internal control over financial reporting and disclosure controls and procedures; • our compliance with legal and statutory requirements as they relate to financial statements and related financial disclosures; • our risk management controls and monitoring processes, according to the ERM policy; • the qualifications, performance and independence of our independent auditors and performance of the internal audit function; and • our internal controls and processes to ensure ESG and cybersecurity disclosures and policies are accurate, transparent and in compliance with applicable laws, regulations or rules. See "Corporate governance, management and employees—Board of directors—Committees of our Board of directors."
303A.08	Shareholders must be given the opportunity to vote on all equity-compensation plans and material revisions thereto, with limited exemptions set forth in the NYSE rules.	Our articles of association require shareholder approval of overall remuneration, including any equity-compensation plans of members of the Board of directors and members of Board committees.
303A.09	A listed company must adopt and disclose corporate governance guidelines that cover certain minimum specified subjects.	We have corporate governance policies in place as described in "Corporate governance, management and employees" in this annual report.

303A.10	A listed company must adopt and disclose a code of business conduct and ethics for directors, officers and employees, and promptly disclose any waivers of the code for directors or executive officers.	We have adopted a formal Code of Conduct, which applies to our directors, officers, employees and third parties who interact with the Company. Our Code of Conduct has a scope that is similar, but not identical, to that required for a U.S. domestic company under the NYSE rules.
303A.12	(a) Each listed company CEO must certify to the NYSE each year that he or she is not aware of any violation by the Company of NYSE corporate governance listing standards. (b) Each listed company CEO must promptly notify the NYSE in writing after any executive officer of the listed company becomes aware of any non-compliance with any applicable provisions of this Section 303A. (c) Each listed company must submit an executed Written Affirmation annually to the NYSE. In addition, each listed company must submit an interim Written Affirmation as and when required by the interim Written Affirmation form specified by the NYSE.	As a foreign private issuer, we are subject to and comply with (b) and (c) of these requirements but are not subject to (a).

BOARD OF DIRECTORS

Our Board of directors is responsible for the general guidance of our business and affairs, including providing general guidance, governance and strategic oversight to our executives and other members of our management team. It is also responsible for ensuring that we meet our objectives, as well as for monitoring our performance and ensuring business continuity. The Board of directors is vested with broad powers to act on behalf of Nexa and to perform or authorize all acts of administrative or ancillary nature necessary or useful to accomplish our corporate purpose. All powers not expressly reserved by law to the shareholders fall within the competence of our Board of directors.

Appointment and term of members of our Board of directors

In accordance with our articles of association and the 1915 Law, the members of our Board of directors are elected by a resolution of a general meeting of shareholders adopted with a simple majority of the votes validly cast, regardless of the portion of capital represented at such general meeting. Votes are cast for or against each nominee proposed for election to the Board and cast votes shall not include votes attaching to shares for which the shareholder has not participated in the vote, has abstained or has returned a blank or invalid vote.

Our directors are appointed for two-year terms and may be reelected. Members of our Board of directors may be removed at any time, with or without cause, by a resolution adopted at a general meeting of our shareholders. Under Luxembourg law, in the case of a vacancy of the office of a director appointed by the general meeting of shareholders, the remaining directors may, by a simple majority vote of the directors present or represented, fill the vacancy. In these circumstances, the following general meeting of shareholders shall make the final appointment of the director.

Composition of the Board of directors

Our Board of directors is comprised of a minimum of five and a maximum of eleven members and currently has nine members, of which four are independent directors and five are non-independent, as set out below.

The term of each and all of our directors expires at the 2026 annual general shareholder meeting, except for Mr. Flavio Aidar, whose term will end at the 2025 annual general shareholders meeting and may be extended to the 2026 annual general shareholders meeting upon shareholders' approval. The following table sets forth our current directors as of the date of this filing, their respective Board positions and their respective date of election to the Board.

Name	Age	Principal Residence	Position	Elected Since
Jaime Ardila (2)(3)	69	Aventura, USA	Chair of the Board	June 18, 2019
Daniella Dimitrov (1)(2)*	55	Toronto, Canada	Director	December 14, 2017**
Edward Ruiz (1)(4)*	74	New Jersey, USA	Director	December 14, 2017**
Flavio Aidar (3)(4)	47	São Paulo, Brazil	Director	October 1, 2024
Gianfranco Castagnola (4)	64	Lima, Peru	Director	June 4, 2020
Hilmar Rode (2)*	57	Antwerpen, Belgium	Director	June 22, 2023
Jane Sadowsky (1)(3)*	63	New York, USA	Director	December 14, 2017**
Luís Ermírio de Moraes (2)(3)	64	São Paulo, Brazil	Director	August 25, 2016
Paulo Ermírio de Moraes Macedo (4)	36	New York, USA	Director	June 28, 2024

(1) Member of the Audit committee.
(2) Member of the SCP committee.
(3) Member of the CNG committee.
(4) Member of the Finance Committee.

* Independent pursuant to Rule 10A-3 under the Exchange Act (Rule 10A-3) and applicable NYSE standards, as well as National Instrument 52-110 *Audit Committees*.
** The Audit Committee members were elected in December 2017 and the effective date of the mandate starting period was January 2018.

The business address of each member of our Board of directors is our corporate office, which is 37A, Avenue J.F. Kennedy, L-1855, Luxembourg, Grand Duchy of Luxembourg.

We present below a brief biographical description of each member of our Board of directors:

Jaime Ardila. Mr. Ardila has been a member of our Board of directors since June 2019 and has been Chair of the Board since July 30, 2020. Mr. Ardila founded The Hawksbill Group in 2016, which provides business advisory services, including strategy, operations, public relations, communications and investment advice. Prior to that, he held several positions at General Motors Company in the U.S., Europe and South America in a career spanning 30 years. He also worked at the Planning Department and the Ministry of Industry and Trade for the government of Colombia from 1981 to 1984 and the investment bank Rothschild from 1996 to 1998. At General Motors, Mr. Ardila served CFO of General Motors Chile; President and Managing Director of General Motors Ecuador; President of General Motors Colombia; President of General Motors Argentina; CFO for Latin America, Africa and the Middle East; President for Brazil and Mercosur; and President of General Motors South America from 2010-2016. He is currently a member of the board of directors of Accenture and Chairman of Goldman Sachs, BDC. Mr. Ardila earned his master's degree in Economics at the London School of Economics in 1981 and his bachelor's degree in Economics at the University of Bogota in 1977.

Daniella Dimitrov. Ms. Dimitrov has been a member of our Board of directors since January 2018. Ms. Dimitrov has over 25 years of leadership experience in building, leading and operating businesses in mining and financial services, including as CEO, COO and CFO. Ms. Dimitrov is currently the CFO of a multi-mine gold producer and her previous roles include President and CEO, Interim CEO, CFO of multi mine gold/copper producers, partner at a mining investment bank, Executive Vice Chair of an iron ore developer through its acquisition following a hostile takeover bid, COO of a Canadian national wealth management and capital markets firm, and various corporate development roles in mining and financial services. Ms. Dimitrov has also been a director of various companies in the mining, oil, gas and chemicals industries and has served as a member and chair of various board committees, including audit, technical, health and safety, compensation and governance. Ms. Dimitrov is currently also a director of Chemtrade Logistics Income Fund. Ms. Dimitrov has received the NACD Directorship Certification, the ESG Global Competent Boards Designation and the Cyber Risk Oversight Certificate from the CERT Division of the Software Engineering Institute at Carnegie Mellon University. She has a Global EMBA from Kellogg School of Management and Schulich School of Business and a law degree. She was chosen as one of the top 100 Global Inspirational Women in Mining in 2016.

Edward Ruiz. Mr. Ruiz has been a member of our Board of directors since January 2018. Mr. Ruiz brings over 51 years of experience in public and private accounting. Mr. Ruiz currently serves on the audit committees of Iochpe Maxion, and SmartFit, publicly traded companies in Brazil, and he is a former member of the Risk, Audit and Finance Committees of Arezzo & Co. He is a Certified Public Accountant since 1972 and has been responsible for audits of companies in the mining and energy sectors in Brazil and the United States. Mr. Ruiz retired from Deloitte in 2012, and most recently served as an audit partner and member of Deloitte's IFRS Accounting Standards specialist group. As head of the Capital Markets group for Deloitte, Mr. Ruiz advised companies on financial and regulatory reporting matters related to initial public offerings and secondary offerings in the Brazilian, United States and European capital markets. Prior to Deloitte, he held executive positions in internal audit at JP Morgan and PepsiCo in the United States. He started his career in public accounting with Arthur Young in 1971. Mr. Ruiz obtained his bachelor's degree from Pace University, New York City in 1971.

Flavio Aidar. Mr. Aidar has been a member of our Board of directors since October 2024. He brings experience in the industrial, infrastructure, and mining sectors, along with extensive board experience in various countries and financial markets. He is currently Managing Director of Votorantim S.A. and member of the Board of directors of Companhia Brasileira de Alumínio since October 2024. He previously served as CEO of InterCement, a leading global cement company with a presence in Latin America, Europe, and Africa. His previous board roles include: Director of CCR S.A., Chairman of Loma Negra, Chairman of lnterCement Brasil S.A., and Chairman of Brazil's Cement Industry Associations. Before holding these positions, Mr. Aidar was a Managing Director in the Investment Banking Division of Goldman Sachs and a member of its management committee in Brazil. Mr. Aidar holds a degree in Business Administration from Fundação Getúlio Vargas.

Gianfranco Castagnola. Mr. Castagnola has been a member of our Board of directors since June 2020. Mr. Castagnola is partner and Chairman of the Board of Apoyo Consultoría, a leading firm specialized in economic, business and financial advisory services in Peru. He is also former chairman of the board of directors of its subsidiary, AC Capitales SAFI, one of the largest Peruvian investment fund managers. He has been a member of the board of directors of the Peruvian Central Bank from 1996 to 2001 and was president of the Universidad del Pacífico board of trustees. He is also chairman of the board of directors of Scotiabank Peru S.A., and member of the board of directors of Saga Falabella, the Austral Group and IKSA. Mr. Castagnola's previous roles include serving as member of the board of directors of Nexa Peru, Nexa Resources Atacocha S.A.A., Lima Airport Partners, Quimica Suiza, Cementos Pacasmayo, Camposol Holding and Redesur. Mr. Castagnola earned his master's degree in public policy from Harvard University and his bachelor's degree in Economics from the Universidad del Pacífico.

Hilmar Rode. Mr. Rode has been a member of our Board of directors since June 2023. Mr. Rode has over 30 years of experience in the global mining, materials, chemicals, and industrial gases industries. He began his career in process development and research engineering before joining Anglo American, where he worked for 12 years in leadership positions in its industrial diamonds, base metals and paper divisions in South Africa, United Kingdom and Austria. He joined Glencore in 2007 as CEO of its zinc division in Bolivia, returning in 2019 to the copper division to work on operational strategy, technical services, projects and capital management. Between 2015 and 2019, Mr. Rode was president of BHP's Minera Escondida Ltda. in Chile and then Chief Executive Officer of zinc producer Nyrstar. Since September 2020, Mr. Rode joined Sibelco as group CEO. Mr. Rode holds a bachelor's degree in Chemical Engineering from the University of Stellenbosch, South Africa, a Master's in Environmental Engineering and a Doctorate in Chemical Engineering from State University, Buffalo, New York, and a Certificate in the Advanced Management Program from Harvard Business School.

Jane Sadowsky. Ms. Sadowsky has been a member of our Board of directors since January 2018. Ms. Sadowsky has a broad and diverse range of finance and deal-related expertise and also has sector expertise in power and utilities and the related fields of commodities, renewables, power technology, infrastructure, and energy. She has a depth of knowledge and experience in mergers and acquisitions, public and private debt and equity, corporate restructurings and cross-border transactions. Ms. Sadowsky retired from Evercore Partners, after more than 22 years as an investment banker. Prior to Evercore Partners, she worked in Citigroup's Investment Bank and began her investment-banking career at Donaldson, Lufkin & Jenrette. Currently, Ms. Sadowsky serves on the board, the audit and the compensation committees of Allied Gold, Inc., and chairs Allied Gold's nomination and governance committee. She also serves as a senior advisor at Moelis &. Company, a U.S. publicly traded company. Ms. Sadowsky also serves on the board and Remuneration Committee of Scientific Games, a PE-backed company based in the US and the NY Chapter of NACD. Ms. Sadowsky earned her MBA from the Wharton School in 1989 and her bachelor's degree in Political Science and International Relations from the University of Pennsylvania in 1983. Ms. Sadowsky has received the NACD Directorship Certification. She is a National Association of Corporate Directors Governance fellow and a frequent speaker at board governance conferences throughout the United States.

Luís Ermírio de Moraes. Mr. Moraes has been a member of our Board of directors since 2016 and was the Chair of the Board until July 30, 2020. He was a member and the Chairman of the board of directors of Nexa Brazil until 2018. Mr. Moraes has over 35 years of experience working in mining and metallurgical operations. He is a member of the board of directors of VSA, which is the Portfolio Manager Board of the Votorantim Group. Mr. Moraes is Chairman of the board of directors of CBA, the largest integrated aluminum producer in Brazil. He is a board member of Hejoassu, which is the ownership board of Votorantim. Mr. Moraes previous roles include director of VSA since 2000. Mr. Moraes also worked as an engineer in various processes in the areas of alumina refinery, smelter and aluminum smelting, pyrometallurgical and hydrometallurgical mineral processing of nickel laterites, developing novel projects for the separation and refining of cobalt. In the early 2000s, Mr. Moraes was the shareholder responsible for the creation and development of a new Votorantim business area with investments in IT and biotechnology. Mr. Moraes received a bachelor's degree in mineral and chemistry engineering from the Colorado School of Mines, in the state of Colorado, United States, in 1982.

Paulo Ermírio de Moraes Macedo. Mr. Macedo has been a member of our Board of directors since June 2024. He is a co-founder and partner of 4×4 Capital, a New York based private equity firm focused on investing in the consumer, industrial and services sectors. Mr. Macedo led the acquisition of 1440 Foods (the former sports and active nutrition division of The Bountiful Company) from KKR and The Carlyle Group in 2021 and served as its Chief Financial Officer until the sale of the company to Bain Capital Private Equity in 2023. Mr. Macedo currently serves as Board Observer of 1440 Foods and as board member of Hejoassu Administração, the ownership board of Grupo Votorantim. Prior to that, Mr. Macedo served on the Board of Citrosuco from 2020 to 2021. Mr. Macedo started his career as an investment banker at Merrill Lynch International in London, working in several M&A and capital market transactions for large European industrial and mining companies and also worked at CVC Capital Partners in its Private Equity team in Sao Paulo, Brazil. Mr. Macedo earned his MBA from Stanford University and received his M.S. and B.S. in engineering from École Nationale des Ponts et Chaussées and Escola Politécnica-USP, where he was a CAPES Foundation Scholar.

Internal rules of the Board of directors

Our Board of directors adopted Board internal rules, which includes the following, among other things:

- approve the general guidance of our business, its mission, strategic goals and guidelines;
- ensure that the executive officers comply with such mission, strategic goals and guidelines;
- approve the budget and a strategic plan which takes into account, among other things, the opportunities and risks of the business;
- approve the annual commercial agreements strategy;
- recommend the shareholders to approve mergers, spin-offs, incorporations, acquisitions, divestitures and joint venture operations related to Nexa and its subsidiaries according to our articles of association;
- promote and ensure compliance with our corporate purpose;
- ensure Nexa's long-term and sustainable continuity with respect to the Company's ESG and economic goals, including, but not limited to, supporting the Board committees to oversee and revise the implementation of the Company's ESG strategy pursuant to applicable laws, when applicable;
- develop our approach to corporate governance, including the creation and review, from time to time, of corporate governance principles and guidelines that are specifically applicable to us;
- evaluate the performance of our CEO and executive officers;
- exemplify and, together with the Management committee, implement a culture of integrity throughout the organization;
- approve and monitor compliance, directly and/or through its committees, with the following policies: (a) code of conduct; (b) disclosure policy; (c) insider trading policy; (d) dividend policy; (e) compliance policy; (f) antitrust/competition policy; (g) anti-corruption policy; (h) money laundering and terrorist financing prevention policy; (i) financial risk management policy (and complementary policies proposed by the Management committee, such as the hedge, derivatives, leverage, liquidity and foreign exchange exposure policy); (j) ERM policy; (k) clawback policy; and (l) authorization policy;;
- approve Board members and executive officers' compensation, the amount of which shall not exceed the amount determined by the general meeting;
- ensure appropriate succession planning for our Board of directors, CEO and executive officers;
- deliberate and approve the terms and conditions of any compensation arrangements or proposed material amendments to any terms and conditions of existing compensation arrangements entered between Nexa and any of our executive officers;
- with respect to cybersecurity: (a) monitor the Audit Committee and management regarding cybersecurity matters and provide guidance as needed; (b) receive updates and reports on cybersecurity tests, incident response plans, cybersecurity incidents, and our cybersecurity policies; and (c) review with management and with the support of the Audit Committee, our cybersecurity risk management program in connection with the Enterprise Risk Management policy; and
- all further tasks as required by applicable laws.

The Board internal rules are available on our website.

The Board has at its disposal a set of provisions and practices that promotes independence in the decision-making process of the Board. In accordance with the Board's internal rules, the independent members of the Board may hold separate meetings, and each director has a duty to declare, prior to any Board meeting, the existence of a particular reason or conflict of interest with Nexa with respect to a subject matter being discussed or considered by the Board. Accordingly, such Board member would be refrained from discussing and voting on a matter that could present a conflict of interest. Additionally, our Board members are prohibited from holding executive positions with Nexa and/or serving on more than four boards of directors of companies that do not belong to the same conglomerate. As discussed above, our Audit Committee is comprised entirely of independent Directors, and we also have independent representation on all other committees.

Description of the position of Chair

Our Board of directors has developed a written position description for the chair of the Board of directors. The chair of the Board has the following responsibilities, subject to any other matters that may be set forth in our articles of association or provided for under applicable law:

- ensure the efficiency and proper performance of the Board of directors;
- preside over the Board meetings;
- prepare, organize, elaborate and distribute the agenda and minutes of the meetings aided by the Board secretary, including all information necessary to discuss the matters on the agenda;
- coordinate the activities of other Board members;
- ensure that all Board members receive comprehensive information about the items on the Board agenda in a timely manner;
- propose the annual corporate calendar to the Board in coordination with Nexa's CEO, which shall necessarily set forth the dates of corporate events;
- organize the onboarding and education sessions for incoming members of the Board in coordination with Nexa's CEO; and
- periodically arrange for continuing education opportunities for all Board members, so that individuals may maintain or enhance their skills and abilities as members and ensure that their knowledge and understanding of Nexa's business remains current.

The chair of our Board of directors is not an independent director of Nexa Resources. The Board of directors has carefully considered governance issues relating to chair independence and believes that the chair carries out separate responsibilities diligently and that, with the compensating practices in place, the Board of directors operates effectively and in Nexa's best interest.

Meetings of the Board of directors and attendance

The Board of directors ordinarily meets in person or by other means of communication as may be required. The frequency of and agenda items for Board meetings will vary depending on the state of affairs, requirements for approvals and opportunities available to Nexa and the risks and issues which Nexa faces. The agenda for meetings places priority and focuses on key issues for Nexa, which are identified by the chair of our Board. Routine business is dealt with after substantive discussions on the key issues.

Under the Board of directors' internal rules and our articles of association, the Board can validly consider any matters and make decisions provided at least a majority of the members are in attendance in person or by representation. The Board of directors' internal rules further provides that each member is entitled to one vote either in person or where duly represented as required by the Board's internal rules. In fiscal year 2024, our Board of directors held ten meetings, in which the rate of attendance in person or by representation was 99%. In addition, we had (i) six Audit Committee meetings, (ii) five Finance Committee meetings, (iii) seven CNG committee meetings, and (iv) seven SCP committee meetings.

Director	Board Meetings	Meetings Attended	Overall % Attendance
Jaime Ardila	10	10	100%
Daniella Dimitrov	10	9	90%
Diego Hernandez	5	5	100%
Eduardo Borges de Andrade Filho	5	5	100%
Edward Ruiz	10	10	100%
Gianfranco Castagnola	10	10	100%
Hilmar Rode	10	10	100%
Jane Sadowsky	10	10	100%
João Henrique Batista de Souza Schmidt	7	7	100%
Flavio Aidar	2	2	100%
Luís Ermírio de Moraes	10	10	100%
Paulo Ermírio de Moraes Macedo	4	4	100%

As set forth in the Board of directors' internal rules, the independent directors may hold meetings in which members of the management team and the non-independent directors are not present. In 2024, our directors held *in camera* sessions without members of the management team prior and/or at the conclusion of each Board meeting.

Committees of our Board of directors

Our Board of directors has an Audit Committee, a Finance Committee, a CNG committee and an SCP committee. Our Board of directors may have other committees as it may determine from time to time. Each of the standing committees of our Board of directors has the composition and responsibilities assigned to them by the meeting of the Board of directors that created such committee and as set forth in their respective committee charters. These charters set out, among other things, the roles and responsibilities of the chair of each committee. As set forth in the respective charters of the committees, each of the committees may meet with or without the management, as the case may be, at the discretion of the committee. The charter for each of the committees of our Board of directors is available on our website.

Audit Committee

Our Audit Committee is a standing committee established by our Board of directors on March 28, 2017, to assist the Board of directors in fulfilling certain of its oversight responsibilities. The Audit Committee may be composed of three to five members, each appointed by our Board of directors for a term of one year. Daniella Dimitrov, Edward Ruiz and Jane Sadowsky currently serve as its members. These individuals are independent under Rule 10A-3 and applicable NYSE standards, as well as Canadian securities regulators' National Instrument 52-110 *Audit Committees*. In addition, each of them satisfies the financial literacy requirement under applicable rules. Our Board of directors has determined that Mr. Edward Ruiz qualifies as an "audit committee financial expert."

Our Audit Committee's primary responsibilities are to assist the Board of directors' oversight of: (i) quality and integrity of our financial reporting and related financial disclosure; (ii) the effectiveness of our internal control over financial reporting and disclosure controls and procedures; (iii) our compliance with legal and statutory requirements as they relate to financial statements and related financial disclosures; (iv) the monitoring of risk management controls and processes, according to the ERM policy, and the oversight of financial reporting and related compliance, internal control over financial reporting and fraud risks; (v) the compliance and ethics program; (vi) review of all related party transactions; (vii) the qualifications, performance and independence of our independent auditors and performance of the internal audit function; and (viii) our internal controls and processes to ensure ESG and cybersecurity disclosures and policies are accurate, transparent and in compliance with applicable laws, regulations and rules.

Nexa has established policies and procedures that require any engagement of our independent auditor for audit or non-audit services to be submitted to and pre-approved by the Audit Committee. In addition, our Audit Committee may delegate the authority to pre-approve non-audit services to one or more of its members. All non-audit services that are pre-approved pursuant to such delegated authority must be presented to the full Audit Committee at its first scheduled meeting following such pre-approval. Our Audit Committee shall pre-approve all audit and non-audit services to be provided to us by our independent auditor and also has the authority to recommend pre-approval policies and procedures to our Board of directors and for the engagement of our independent auditor's services.

Finance committee

Our Finance Committee is a standing committee established by our Board of directors on March 28, 2017, to assist the Board of directors in fulfilling certain of its oversight responsibilities. The Finance Committee may be composed of three to five members, each appointed by our Board of directors for a term of one year. Gianfranco Castagnola, Paulo Macedo, Flávio Aidar and Edward Ruiz currently serve as its members. It is also the Finance Committee attribution to support the Board in its monitoring of the enterprise risk management in matters related to the responsibility of this committee.

Our Finance Committee's primary responsibilities are to assist the Board of directors in fulfilling its oversight responsibilities with respect to monitoring Nexa's balance sheet and by providing recommendations on our capital management strategy and capital structure, including indebtedness, investments and returns, support the Board in its monitoring of the enterprise risk management in matters related to the responsibilities of the committee, among others.

CNG committee

Our CNG committee is a standing committee established by our Board of directors on March 28, 2017, to assist the Board of directors in fulfilling certain of its oversight responsibilities. The CNG committee may be composed of two to five members, each appointed by our Board of directors for a term of one year. Jaime Ardila, Jane Sadowsky, Luís Ermírio de Moraes and Flavio Aidar currently serve as its members. One of the four members of the compensation, nominating and governance committee is an independent director.

Our CNG committee is responsible for: (1) new compensation models and changes to compensation models currently used by us, in order to guide and influence our actions; (2) the compensation of the executive officers, of the members of the Board of directors and of the members of the committees of the Board of directors; (3) the administration the policy for the recovery of erroneously awarded compensation with the support of the Audit Committee and/or the Finance Committees where applicable, and the proposal of changes to such policy if necessary; (4) the proposal of candidates to the chair of chief executive officer, when applicable, or any serious restrictions on the candidates proposed by the chief executive officer to the other chairs of the executive officers; (5) development of corporate governance guidelines and principles; (6) the governance structure related to the Company's ESG strategy as it applies to the Company and its value chain; (7) identification of individuals qualified to be nominated as members of the Board of directors and suggesting nominees to fill any vacancies on the Board of directors; (8) the structure and composition of Board committees; (9) evaluation of the performance and effectiveness of the Board of directors, the chief executive officer and each of the Board's standing committees; (10) the supervision and approval of our social responsibility plans and policies (other than community-related aspects which are overseen by the SCP committee), including, but not limited to, our ESG strategy; (11) the supervision of our people strategy; (12) the monitoring of the relationship of the Company with unions; (13) support the Board in its monitoring of the enterprise risk management in matters related to the responsibilities of the committee; and (14) any related matters required by applicable laws. For more information regarding our corporate governance policies, see "Information on the Company—Environmental, Social and Governance (ESG)—Nexa Materiality Matrix—Governance."

SCP committee

Our SCP committee is a standing committee established by our Board of directors on April 29, 2019, to assist the Board of directors in fulfilling certain of its oversight responsibilities. The SCP committee may be composed of at least three and no more than five members, each appointed by our Board of directors for a term of one year. Daniella Dimitrov, Hilmar Rode, Luís Ermírio de Moraes and Jaime Ardila currently serve as its members.

Our SCP committee's primary responsibilities are to assist the Board of directors by supporting safe and sustainable business practices in the conduct of our activities in respect of environmental, health, safety and social matters, including relationships with local communities, tailings management, water, waste, biodiversity, and GHG emissions, as well as with respect to the estimation and disclosure of mineral resources and reserves at all operations and projects (collectively "Sustainability Matters"). The committee also assists the Board with the oversight of our ESG strategy, including its revision and implementation, in connection with the Sustainability Matters and all related applicable laws.

The SCP committee is also responsible for assisting the Board with the review of technical, economic and social matters with respect to our projects, including exploration, development, permitting, construction and operation of our mining and smelting assets, which are core to our strategy and growth. For more information regarding our sustainability policies, see "Information on the Company—Environmental, Social and Governance (ESG)—Nexa Materiality Matrix—Environmental" and "Information on the Company—Environmental, Social and Governance (ESG)—Nexa Materiality Matrix—Social."

Orientation and continuing education

We implemented an orientation program for new directors under which each new director meets with the chair of our Board of directors and our executives. New directors are provided with comprehensive orientation and education as to our business, operations and corporate governance (including the role and responsibilities of the Board of directors and each committee).

The chair of our Board of directors is responsible for overseeing directors' continuing education and ensure that it is designed to maintain or enhance the skills and abilities of our directors and to ensure that their knowledge and understanding of our business remains current. The chair of each committee is responsible for coordinating orientation and continuing director development programs relating to the committee's mandate.

Our ongoing director education programs entails site visits, presentations from outside experts and consultants, discussions on ongoing governance trends and guidelines for public companies, briefings from staff and management, and reports on issues relating to our projects and operations, sustainability and social matters, competitive factors, reserves, legal issues, economic, accounting and financial disclosure, mineral and hydrocarbon education and other initiatives intended to keep the Board abreast of new developments and challenges that we may face. As part of the education session, certain directors obtained international certifications related to the competencies necessary for their activities, such as National Association of Corporate Directors ("NACD") Directorship Certification.

Evaluation of directors

Our CNG committee established a framework for the implementation and administration of processes to assess the effectiveness of the Board and each of its members. This includes peer reviews of each director's performance and self-assessments, as well as full Board and committee review of the Board and the respective committees, by way of questionnaires, interviews and sessions with the chair. In addition to hiring external advisors to develop and undertake this assessment, the CNG committee is also responsible for overseeing the process and evaluating the results, with the objective of improving the performance of each director and the Board of directors as a whole.

Considerations in evaluating director nominees

Our Board of directors is responsible for nominating members for election to the Board and for filling vacancies on the Board that may occur between annual meetings of shareholders. The process for nominating a new director initiates with our CNG committee which evaluates Nexa's current circumstances and establishes a profile for a director candidate. Such profile is then shared with a specialized external executive search firm, who assists the CNG committee in selecting candidates for interviews. Prior to the interview, the specialized external firm is responsible for a background check with former employers and colleagues of the respective candidates.

Following the interview(s), our CNG committee recommends the nomination of the director candidate to our Board of directors based upon an assessment of the independence, skills, qualifications and experience of such candidate. Specifically, the Board seeks members from diverse professional and personal backgrounds who combine a broad spectrum of experience and expertise with a reputation for integrity.

Plurality

We value diversity in our operations. We believe that having a diverse Board of directors can offer a breadth and depth of perspectives that enhance our performance. Recommendations concerning director nominees are based on merit and past performance as well as other factors, as we believe that having a diverse and inclusive organization overall is beneficial to our success.

For more information on our practices related to diversity, see "Information on the Company—Environmental, Social and Governance (ESG)—Nexa Materiality Matrix—Social" and "Information on the Company—Environmental, Social and Governance (ESG)—Nexa Materiality Matrix—Governance."

Compensation-setting process

Our CNG committee is responsible for assisting our Board of directors in fulfilling its governance and supervisory responsibilities and advising our Board of directors with respect to evaluation and monitoring of compensation models and policies performed every two years, which takes into account peer companies and the challenges and opportunities we face. The committee's responsibilities also include administering and determining our compensation objectives and programs, reviewing and making recommendations to our Board of directors concerning the level and type of the compensation payable, evaluating performance, implementing evaluation and improvement processes, and ensuring that policies and processes are consistent with our philosophy and the objectives of our compensation program.

Share ownership

Luís Ermírio de Moraes, a member of our Board of directors, indirectly owns approximately 2,379,242, or 1.79%, of our common shares. As of December 31, 2024, none of our executive officers own, beneficially or of record, any of our common shares.

EXECUTIVE OFFICERS AND MANAGEMENT COMMITTEE

Executive officers

We have global executives and management teams for our main subsidiaries. Each subsidiary team has a management structure that adheres to our corporate governance rules. Our executives currently are as follows:

Name	Age	Principal Residence	Position
Ignacio Rosado	55	São Paulo, Brazil	President and Chief Executive Officer
José Carlos del Valle	55	Lima, Peru	Senior Vice President of Finance and Group Chief Financial Officer; Chief Executive Officer of Nexa Peru
Mauro Davi Boletta	64	São Paulo, Brazil	Senior Vice President of Smelting Operations and Commercial
Leonardo Nunes Coelho	47	Lima, Peru	Senior Vice President of Mining Operations
Jones Aparecido Belther	57	São Paulo, Brazil	Senior Vice President of Technical Services & Business Development
Gustavo Cicilini	49	São Paulo, Brazil	Vice President of Human Resources and Corporate Affairs
Renata Penna Moreira Gunzburger	41	São Paulo, Brazil	Vice President of Legal & Governance

The business address of our executives is Avenida Engenheiro Luís Carlos Berrini, n° 105, 6th floor, São Paulo, State of São Paulo, Brazil.

A brief biographical description of each of our executives is presented below:

Ignacio Rosado. Mr. Rosado has been our Chief Executive Officer since January 2022. He has more than 16 years of experience in the metals and mining industry, and extensive board experience in different countries. Mr. Rosado led the initial public offering of Hochschild Mining Plc, and its acquisition strategy on Canadian Mining Assets. He also led the reorganization and transformation of Volcan Compañia Minera S.A.A. (“Volcan”) which included the construction of two new polymetallic mines and the issuance of bonds for more than US$1 billion. Prior to joining Nexa Resources, Mr. Rosado was the CEO of Volcan since 2014 and its Deputy CEO since 2010. Prior to Volcan, he served as Director and Chief Financial Officer at Hochschild Mining Plc. since 2005 and as a Senior Project Manager at McKinsey & Company since 2000. During his career, he also served on the board of directors of Lake Shore Gold Corp., Zincore Metals, Cordoba Minerals, and Kaizen Discovery. Mr. Rosado graduated with a degree in Economics in 1992 from Universidad del Pacifico and an MBA from the Ross School of Business, University of Michigan in 2000.

José Carlos del Valle. Mr. del Valle has been our Senior Vice President of Finance and Group Chief Financial Officer since October 3, 2022, and he also serves as Chief Executive Officer of Nexa Peru since November 2022. He has extensive knowledge of the metals and mining industry and more than 25 years of experience in finance and planning. Mr. del Valle joined Nexa after spending nine years as CFO at Compañía Minera Antamina, where he led a successful company-wide transformation program and a US$1 billion syndicated loan financing initiative, among other key efforts. Before Antamina, he was the CFO of Volcan Compañía Minera and he held various leadership positions at well-known companies, including McKinsey & Company, Standard Chartered Bank, and Wells Fargo Bank, among others. Mr. del Valle holds a Business Administration degree from California State University, as well as an MBA from The Wharton School. He also graduated from the Advanced Management Program at Harvard Business School.

Mauro Davi Boletta. Mr. Boletta has been our Senior Vice President of Smelting Operations and Commercial since 2016. Mr. Boletta has over 30 years of experience with operations. He joined Votorantim Metais S.A. in 1986, having served in several production areas. Between 2010 and 2011, he was responsible for the design review of an aluminum smelter in Trinidad and Tobago. Mr. Boletta graduated with a degree in electrical engineering from the Federal University of Itajubá, UNIFEI in 1985 and holds an MBA from FGV.

Leonardo Nunes Coelho. Mr. Coelho has been our Senior Vice President of Mining Operations since 2017. Mr. Coelho has over 20 years of experience managing mining operations with focus at gold and zinc. Prior to joining us, Mr. Coelho worked for Anglo Gold Ashanti Ltd. for 15 years, where he initiated his career as a Trainee. In Anglo Gold Ashanti Ltd., Mr. Coelho has led mining operations and the expansion of mining projects and served as General Manager of the Cuiabá and Lamego complexes as his last position at this company. Mr. Coelho graduated with a degree in Mine Engineering in 2001 from the Federal University of the State of Minas Gerais (“UFMG”) and has obtained graduate degrees from the Kellogg Graduate School of Management in 2015 in the United States, the Dom Cabral Foundation in 2009 in Brazil and the University of Cape Town in 2005 in South Africa as well as a qualification at INSEAD in digital transformation in 2018 and MIT in 2019.

Jones Aparecido Belther. Mr. Belther has been our Senior Vice President of Technical Services & Business Development since October 2024. Prior to this role, he served as Senior Vice President of Mineral Exploration & Business Development since 2014. He has over 28 years of experience in the area. He held the same position at Votorantim Metais S.A. between 2004 and 2014. Prior to joining us, he was country manager at Vale in Peru between 2002 and 2004. He has worked in Brazil and abroad in companies such as Rio Tinto Brasil, Golden Star Resources, in Suriname, Phelps Dodge in Brazil and Chile, Vale in Brazil and Peru, and other companies. Mr. Belther graduated with a degree in Geology in 1991 from the São Paulo State University, UNESP, in Brazil, where he also obtained a Master's degree in 2000 in Mineral Exploration.

Gustavo Cicilini. Mr. Cicilini became Vice President of Human Resources and Corporate Affairs in 2019. Mr. Cicilini joined Nexa Resources in 2018 as senior Human Resources manager for attraction, development and culture and has been responsible for leading a culture transformation program. He has over 20 years of professional experience in various business sectors, including telecommunication, food and beverage, mobility solutions, industrial technology, consumer goods, energy and building technology. He has previously worked in companies including Algar Telecom, AmBev and Robert Bosch and been located throughout Latin America, including in Peru, Colombia, Ecuador, Venezuela, Panama and Costa Rica. Mr. Cicilini previously worked as Regional Corporate Human Resources Project Manager and has been responsible for change management and innovation, business intelligence and cross-selling functions. He holds a degree in Psychology and an MBA in Business Administration. Mr. Cicilini will be leaving the company in April 2025. We are currently working on a transition plan to ensure continuity in leadership and strategic initiatives within the Human Resources and Corporate Affairs functions.

Renata Penna Moreira Gunzburger. Ms. Penna has been our Vice President of Legal & Governance since April 2023. Ms. Penna joined Nexa as Chief Legal Counsel and Head of Governance in 2017. With more than 20 years of experience, Ms. Penna has focused on M&A, project finance and capital market transactions and she served as counsel and project manager on Nexa's initial public offering in October 2017. As of 2024, she also serves as a member of the board of directors of FUNSEJEM. Prior to Nexa, she led LATAM, M&A and Finance divisions within the Legal Department of Votorantim Cimentos for six years, as well as worked for law firms such as Linklaters, Lobo & de Rizzo and Barbosa Mussnich & Aragão Advogados. Ms. Penna has a Bachelor from Pontifícia Universidade Católica de São Paulo and a Master of Law Degree (LL.M.) from the University of Chicago Law School, an Executive MBA from Instituto de Ensino e Pesquisa ("INSPER") and completed an Executive Education Program on Women on Board from Harvard Business School.

Evaluation of executive officers

On an annual basis, the performance of our executive officers is evaluated by the chief executive officer, the CNG committee and ultimately, the Board of directors. We strive to create a strong ethical and high-performance culture, as well work to ensure an appropriate succession plan that ensures the continuity of our business. In addition to future business needs, we consider the core skills, experience and personal attributes necessary to carry out our strategy.

Each year, our chief executive officer presents to the Board of directors a report on potential successors to his position, which considers the ability of succession candidates to succeed the chief executive officer in an emergency, on an interim or permanent basis, as well as critical experiences and other attributes required in order for each candidate to enhance his or her readiness for succession. Our Board of directors discusses potential successors with the chief executive officers, as well as potential successors to each member of the management team.

Position descriptions

Our Board of directors has developed position descriptions for each of the chief executive officer and chief financial officer, which are discussed below.

Chief executive officer

Our Board of directors believes that our chief executive officer must have experience in, among other things: leading businesses of a similar complexity and scale; carrying out growth and value creation mandates; participating in mergers and acquisitions; articulating and executing long-term corporate strategies; and facilitating development within high achieving organizations. In addition, our Board of directors expects our chief executive officer to have knowledge of the mining and metals industry, international experience and an extensive global network. According to our Board of directors, our chief executive officer should possess the following attributes, among others: a hands-on approach to the business; an alignment with our values; resiliency and credibility; a good reputation within the market; and the ability to communicate with and influence stakeholders.

Chief financial officer

Our Board of directors believes that our chief financial officer must have experience in, among other things: leading accounting, controllership, financial planning and analysis, investor relations, treasury matters, mergers and acquisitions and risk management activities; formulating a company's plan and direction for the future; developing financial, operational and tax-related strategies; managing transactions; overseeing internal controls in compliance with applicable laws and regulations; and implementing all financial-related activities within a company. In addition, our Board of directors expects our chief financial officer to have public company experience, strong analytical and business valuation skills and knowledge of national securities exchanges, such as the NYSE, international experience and an extensive global network. According to our Board of directors, our chief financial officer should possess the following attributes, among others: a hands-on approach to the business; an alignment with our values; resiliency and credibility; a good reputation in the market; and the ability to communicate with and influence stakeholders.

Management committee

In accordance with our articles of association, the Board of directors may delegate its powers to conduct our management and affairs, as well as its representation of us with respect to such matters, to a Management committee. The Management committee consists of at least three, and a maximum of eleven, members. The members are not required to be shareholders or directors of Nexa. The Board of directors may not delegate its powers related to general guidance of our business or acts reserved to the Board of directors pursuant to the 1915 Law.

The following table sets forth the current members of our Management committee, and their respective positions. The term of the members of our Management committee expires on the day of the first Board meeting held after the 2025 general shareholders' meeting.

Name	Age	Principal Residence	Position
Ignacio Rosado	55	São Paulo, Brazil	President and Chief Executive Officer
José Carlos del Valle	55	Lima, Peru	Senior Vice President of Finance and Group Chief Financial Officer
Mauro Davi Boletta	64	São Paulo, Brazil	Senior Vice President of Smelting Operations and Commercial
Leonardo Nunes Coelho	47	Lima, Peru	Senior Vice President of Mining Operations
Jones Aparecido Belther	57	São Paulo, Brazil	Senior Vice President of Technical Services & Business Development

Conduct Committee

Our Conduct committee reports to the Chief Executive Officer and was created on January 1, 2014. Its internal rules were revised and updated on December 2, 2019.

The Conduct committee may be composed of at least seven members, such members being necessarily the Chief Executive Officer, the Vice President of Human Resources and Corporate Affairs, the Vice President of Legal & Governance, the Head of Internal Audit, Compliance and Internal Controls, the Ethics Line Manager and two representatives of the Ethics Line program, a confidential reporting system managed by a qualified and independent external entity available to internal and external parties designed to allow anonymous reporting of violations of our Code of Conduct, policies and internal procedures or applicable laws.

Our Conduct committee's primary responsibilities are to assist the Management committee in enforcing the Code of Conduct, reviewing any claims raised through the Ethics Line program, and identifying claims that should be rated as critical. The Conduct committee also assists our Audit Committee by ensuring that any claim filed through the Ethics Line program and rated as critical is properly elevated to the Audit Committee for further review.

Family relationships among executives

Our executives do not have any family relationships among themselves or with any other of our employees.

EXECUTIVE AND DIRECTOR COMPENSATION

The following discussion describes the significant elements of the compensation of our executive officers and directors for the year ending December 31, 2024.

In 2024 our executive compensation program includes cash compensation in the form of base salary, short-term incentives and long-term incentives. We provide base salary to compensate executives for their day-to-day responsibilities, which is aligned to a market reference based on industry analysis. We evaluate our total compensation practices on an annual basis to ensure that our compensation remains competitive in light of market and industry trends.

Our CNG committee is responsible for assisting our Board of directors in fulfilling its governance and supervisory responsibilities and advising our Board of directors with respect to evaluation and monitoring of compensation models and policies and other related matters. The committee's responsibilities also include administering and determining our compensation objectives and programs, reviewing and making recommendations to our Board of directors concerning the level and type of the compensation payable, evaluating performance, implementing evaluation and improvement processes, and ensuring that policies and processes are consistent with our philosophy and the objectives of our compensation program.

Compensation framework

Our compensation is comprised of three principal components: (i) base salary, (ii) short-term incentive and (iii) long-term incentive.

Principal elements of compensation

Base salary

Base salaries for executive officers are established based on the scope of their responsibilities and competencies and taking into consideration the median market reference. Adjustments to base salaries are expected to be determined annually and may be increased based on performance, as well as to maintain market competitiveness. Additionally, base salaries may be adjusted as warranted throughout the year to reflect promotions or other changes in the scope or breadth of roles or responsibilities.

Short-term incentive program / bonuses

The annual bonus or short-term incentive program aims to align short-term priorities with our strategic planning by rewarding achievement of our goals and targeted annual results, resulting in an alignment with our interests. Each named executive officer has a panel of individual goals, with scales of minimum performance, target and surpass results. Measurement in these panels is based on financial and non-financial indicators. These indicators represent the specific goals and challenges attributable to the position in alignment with our performance and strategic planning.

Financial indicators are based on internal metrics and represent 30% to 50% of the employee panel for corporate positions. In 2024, the metrics used were Free Cash Flow ("FCF") and Management Gains ("MGs"). The target of FCF is structured around the combined total of all our revenue versus costs and considers metal prices, and floating exchange rates. For MGs, the target is to capture opportunities for working capital gains, fixed costs, production costs, and synergies, among other metrics, measured in millions of dollars, and it considers fixed metal prices and exchange rates.

Strategic goals represent 20% of the individual panel and are comprised of qualitative and quantitative factors. In 2024, the metrics used in this assessment included risk management indicators, percentage of women in leadership roles, percentage of women in the workforce, heat maps of critical environmental issues, including decarbonization and sustainability initiatives, and work environment. We also recognize individual performance through targets that support different strategies in line with our broader compensation plan. The financial indicators applicable to our CEO represented 50% of the individual panel, and the metrics used were FCF and MGs.

In 2024, 5% of the compensation of our executive officers was related to the achievement of ESG goals.

Long-term incentive program

Our long-term incentive ("LTI") program is designed to provide strong incentives for making decisions with a view to creating value for shareholders by linking cash compensation to our long-term performance, and by guiding executive actions towards the achievement of our strategic goals and growth plans.

The LTI program aligns interests among our executives and shareholders to ensure continued value creation. This incentive system is also intended to engage management in developing and delivering a consistent strategic plan, as well to attract and retain executive officers.

In April 2023, Nexa began a revision process of our previous LTI program. The new LTI program came into effect in February 2024. The new LTI program is based on a three to five-year vesting period and is comprised of two parts: (i) restricted grant and (ii) absolute performance grant. Both grants are defined amounts approved by the Board of directors to be paid out at the end of the third, fourth and fifth year, considering one third of the total payment to be made on each of the three payments. The restricted grant amount appreciates according to the total shareholder return ("TSR") over each payment period. The payment of the absolute performance grant is based on a targeted Company TSR combined with a performance curve, over each payment period, both approved by our Board of directors at each granting period. The performance curve determines the amount to be paid in case of a performance equal or lower than expected in the targeted TSR. If the targeted TSR is achieved, the payment is fully due. If the performance of the TSR is greater than expected, the supplementary grant to be paid will be adjusted by up to 100%. At the end of the five-year vesting period, the amount paid on the previous two payments will be adjusted with the fifth year TSR result.

The methodology is referenced to the market value of Nexa Resources' shares at the end of the vesting period, calculated based on the average price of the common shares during the months of October, November and December in the year immediately prior to the year in which the respective settlement date for the award occurs, together with dividends paid during the respective grant cycle.

Change of control

Upon the occurrence of a change of control event, all of our remaining phantom shares granted to executive officers after our IPO will continue under the same terms, conditions and due dates, with the following exceptions:

- If Nexa terminates an executive's employment without cause or if the executive resigns for good reason within 24 months of the change of control event, any unvested phantom shares will immediately fully vest as of the date of such termination or resignation for good reason. The exercise price will be calculated based on the weighted average price of the common shares during the three months immediately preceding the month of termination. In case termination occurs on the same date of the change of control event, the exercise price will be the share price (in US$/share) used as reference for the transaction that resulted in the change of control event.

- If the executive resigns within twelve months of the change of control event, he or she will be entitled to a portion of the granted shares, proportionate to the length of time served (1/60 for each 30-day period served), which will become immediately vested as of the date of resignation. The exercise price will be calculated based on the weighted average price of the common shares during the three months immediately preceding the month of resignation. The Board may approve special cases and adjust the aforementioned rules provided that the basic rights of the new shareholders as well as the executives are preserved.

Insider trading policies

According to our insider trading policy, directors, officers and employees of Nexa and its subsidiaries must refrain from improper trading, and the appearance of improper trading, in our securities. This applies to all transactions in any securities of Nexa, including, but not limited to, any of our shares, securities convertible or exchangeable into shares or other securities of Nexa, securities that Nexa may issue from time to time, such as preferred stock, warrants, and convertible debentures, as well as debt instruments, puts, calls, options and any other rights or obligations to buy or sell Nexa's securities. It also applies to derivative securities relating to Nexa's securities, including securities exchangeable into Nexa's securities, whether or not issued by Nexa, such as exchange-traded options and the purchase of the Nexa's securities with the intention of quickly reselling them. In addition, directors, officers and employees may not purchase financial instruments, such as prepaid variable forward contracts, equity swaps or collars, designed to hedge or offset a decrease in the market value of Nexa's securities. Our policy applies to not only all securities owned by Nexa directors, officers, and employees, but also all securities owned by others where Nexa directors, officers, or employees have a direct or indirect control over investment decisions.

Our insider trading policy is made available to directors, officers and employees directly or by posting the policy on Nexa's website and such individuals are informed whenever significant changes are made to the policy. Violations to the policy will result in disciplinary action, including possible termination. Additionally, our policy applies to individuals even after termination of employment or service with Nexa.

2024 executive compensation

During fiscal year 2024, our executive officers received cash compensation in an aggregate amount of approximately US$5.5 million which includes compensation paid to any officers whose terms ended on the first business day of 2024. The following table summarizes compensation we paid to our executive officers during the fiscal year 2024, including base salary, short-term incentive programs or bonuses, long-term incentive programs and pension value.

		Non equity Incentive Plan Compensation			
Name and Title	**Base Salary (US$)**	**Short-term incentive programs / bonuses (US$)**	**Long-term incentive programs (US$)**	**Pension Value (US$)**	**Total Compensation (US$)**
Ignacio Rosado *President and Chief Executive Officer*	540,618	876,591	-	30,730	**1,447,939**
José Carlos del Valle *Senior Vice President of Finance and Group Chief Financial Officer*	394,407	465,627	-	-	**860,034**
Mauro Davi Boletta *Senior Vice President of Smelting Operations and Commercial*	199,595	233,497	27,181	11,969	**472,242**
Leonardo Nunes Coelho *Senior Vice President of Mining Operations*	321,132	471,044	46,208	9,847	**848,231**
Marcio Luiz Silva Godoy [(1)] *Former Senior Vice President of Technical Services and Projects*	226,450	508,276	-	12,436	**747,162**
Jones Aparecido Belther *Senior Vice President of Technical Services & Business Development*	213,386	204,414	29,356	12,604	**459,760**
Gustavo Cicilini *Vice President of Human Resources and Corporate Affairs*	188,907	166,947	13,591	9,943	**379,387**
Renata Penna Moreira Gunzburger *Vice President of Legal & Governance*	145,856	150,128	-	8,751	**304,735**

(1) Marcio Luiz Silva Godoy stepped down from his role as Senior Vice President of Technical Services and Projects effective October 15, 2024. The amount paid to Mr. Godoy includes termination costs.

2024 director compensation

During fiscal year 2024, our directors received total compensation in an aggregate amount of approximately US$2.3 million for their services as members of our Board of directors. In 2024, the average base compensation for each Director from January 2024 to June 2024 was US$220,000, and from July 2024 to December 2024 was US$235,000, which remains as the current base compensation. In addition, each director is entitled to reimbursement for reasonable travel and other expenses incurred in connection with attending Board meetings and meetings for any committee on which he or she serves.

We have no service contracts with members of our Board of directors providing for benefits upon termination of employment.

Total annual compensation paid in 2024 for the directors are as set out below:

Name	Total Compensation (US$)
Jaime Ardila [1][3]	298,750
Daniella Dimitrov [2][3]	242,500
Diego Hernandez [3][4]	104,139
Eduardo Borges de Andrade Filho [3][4]	104,139
Edward Ruiz [2][3]	250,000
Flavio Aidar [5]	60,000
Gianfranco Castagnola [3]	237,500
Hilmar Rode [3]	230,000
Jane Sadowsky [2][3]	240,000
João Henrique Batista de Souza Schmidt [2][6]	171,250
Luís Ermírio de Moraes [3]	232,500
Paulo Ermírio de Moraes Macedo [3][7]	133,500

(1) The chair of the Board is entitled to additional compensation of US$70,000.00 per year.

(2) The Audit Committee members are entitled to additional compensation of US$10,000.00 per year. The chair of the Audit Committee is entitled to additional compensation of US$20,000.00 per year.

(3) The members of the other committees are entitled to additional compensation of US$5,000.00 per year per committee. Chairs of the other committees receive compensation of US$10,000.00 per year. There are no additional payments per meeting attended.

(4) Left the board on June 13, 2024.

(5) Joined the board on October 1, 2024.

(6) Left the board on October 1, 2024.

(7) Joined the board on June 13, 2024.

Compensation consultants

We retained Korn Ferry in 2024 to provide competitive market analysis to assist in determining the appropriate level of compensation for executives, providing comprehensive competitive market clearing information on incentives, policies and benefits for each executive position. Korn Ferry has over 40 years of experience and deep knowledge in the Brazilian market. We paid Korn Ferry US$72,554 in consulting services fees in 2024.

Retirement benefit plans

All executive officers participate in the FUNSEJEM pension fund, a private, closed and not-for-profit pension fund responsible for the management of the pension plans for the employees of the companies that are linked with the Votorantim group.

The pension plan is a defined contribution plan. Participation is voluntary and thus supplemental to the Brazilian government's mandatory social security system. The plan is offered to employees through a specific fund that is maintained separately from the funds of each of the sponsoring organizations.

The plan's assets correspond to 100% of the value of the liabilities. Annually, an actuarial assessment is made in compliance with the current legislation. However, there is no risk of deficit, since it is a defined contribution plan, whose formation of the reserve results from the capitalization of the respective contributions to the plan.

Nexa also matches the contribution made by the participant depending on their salary range. This contribution is monthly and varies between 1.5% and 6.0%, depending on the chosen percentage of the participant's contribution.

Recovery analysis of incentive-based compensation

Our employee incentive compensation recovery policy (the "Clawback Policy") provides that if we are required to prepare an accounting restatement, our Compensation, Nominating and Governance Committee must determine whether there has been any erroneously awarded compensation for each of our executive officers in connection with such accounting restatement. The Clawback Policy is included as Exhibit 97.1 to this report.

As indicated in note 3.1 to our annual financial statements, we have revised the prior-period financial statements to correct an immaterial error in the financial statements of our subsidiary Nexa Brazil in the recognition of certain lease-related contracts. In compliance with our Clawback Policy, our Compensation, Nominating and Governance Committee, with the support of members from our finance, human resources, legal and internal controls teams, performed an analysis of the impact that the error had on past and future payouts under our short-term and long-term incentive payments.

As a result of the analysis, our Compensation, Nominating and Governance Committee determined that no excess incentive compensation was received by executive officers in 2024 based on the error, and therefore no recovery was required under our Clawback Policy.

EMPLOYEES

As of December 31, 2024, we had 5,253 employees and 7,452 independent contractors. The following tables show the number of employees and contractors as of December 31, 2024, 2023 and 2022.

Number of Employees

	As of December 31,		
	2024	**2023**	**2022**
Brazil	3,247	3,658	3,509
Peru	1,989	2,095	2,096
United States and Luxembourg	17	18	20
Total	**5,253**	**5,771**	**5,625**

Number of Independent Contractors*

	As of December 31,		
	2024	**2023**	**2022**
Brazil	2,652	7,011	2,788
Peru	4,800	1,773	5,808
Total	**7,452**	**8,784**	**8,596**

*Refers to fixed-term contracts only.

Most of our employees are represented by labor unions. We negotiate collective bargaining agreements, relating to salaries, working conditions and welfare, with the various unions that represent our employees. Although we believe our present labor relations are good, there can be no assurance that a work slowdown, stoppage or strike will not occur prior to or upon the expiration of the current collective bargaining agreements, and we are unable to estimate the effect of any such work slowdown, stoppage or strike on our production levels, in spite of an established contingency plan.

We regularly invest in programs that ensure employee development and meet our specific business needs while continuously enhancing the qualifications of our staff so as to maintain and reinforce our competitiveness and our know-how as we continue to grow. The training programs include Technical/Operative Trainings, Mentoring Program, Leadership Development Program, Young Professional Training and an Individual Development Plan that, among other things, indicates the training that a given employee requires in order to continue to grow within Nexa Resources. In addition, we have an Academy of Excellence, a program created by Votorantim for leaders within Votorantim.

V. ADDITIONAL INFORMATION

LEGAL PROCEEDINGS

As of December 31, 2024, we were party to various legal and administrative proceedings relating to labor, civil, environmental and tax matters in which the disputed amount for probable and possible claims was an aggregate of US$663.7 million. It is our policy to make provisions for legal contingencies when, based upon our judgment and the advice of our legal counsel, the risk of loss is probable. As of December 31, 2024, we had established a net provision in the amount of US$136.6 million to cover contingencies for proceedings for which the risk of loss was deemed probable.

The following tables summarize judicial and administrative proceedings to which we are a party, the amounts in dispute in these proceedings in which a loss is considered probable or possible and the aggregate amount of the net provision established for losses that may arise from these proceedings.

	As of December 31, 2024	
	Total Proceedings [1]	**Total Net Provisions [2]**
	(in millions of US$)	
Civil and environmental [3]	145.7	21.1
Tax	476.1	98.1
Labor	41.9	17.4
Total	**663.7**	**136.6**

(1) Does not include claims with expectation of loss classified as remote.

(2) Only includes claims with expectation of loss classified as probable, net of judicial deposits.

(3) Includes environmental legal and administrative proceedings.

Civil and environmental liabilities and contingencies

As of December 31, 2024, we were party to civil judicial proceedings and environmental administrative proceedings, with a probable or possible chance of loss in the aggregate amount of US$145.7 million, for which we have recorded a net provision in the amount of US$21.1 million for proceedings with probable losses. The civil and environmental judicial claims filed against us primarily relate to pollution and collection lawsuits, repossession actions and indemnity actions related to contract disputes.

Tax liabilities and contingencies

As of December 31, 2024, we were party to tax related judicial proceedings, with a probable or possible chance of loss in the aggregate amount of US$476.1 million, for which we have recorded a net provision in the amount of US$98.1 million for proceedings with probable losses.

The tax-related judicial and administrative claims filed against us primarily relate to (i) value added tax on Sales and Services (“VAT”), (ii) corporate income tax and social contribution on net profit (“CIT”), (iii) Brazilian mining royalty (“CFEM”), (iv) Social Contributions (“PIS” and “COFINS”).

Labor liabilities and contingencies

As of December 31, 2024, we were party to labor judicial proceedings related to employment benefits, with a probable or possible chance of loss of a total amount of US$41.9 million, for which we have recorded a net provision in the amount of US$17.4 million for proceedings with probable losses. The judicial and administrative claims related to labor benefits that were filed against us are mainly related to (i) overtime payments, (ii) compensation for illness-related damages, and (iii) payment of social benefits.

Other legal proceedings

VAT investigation

Throughout 2023 and 2024, Nexa continued to cooperate with the investigation being carried out by the Fiscal Office of the State of Minas Gerais and the Public Ministry of Minas Gerais (the "MG Authorities") of the practices of certain of Nexa's former customers with respect to commercial transactions and related value added tax ("VAT"), as well as Nexa's relationship with such former customers, that could result in liabilities for all parties involved in the commercial relationship.

In the third quarter of 2023, Nexa and the MG Authorities reached a resolution (the "Tax Resolution") whereby Nexa, without admitting primary responsibility for the resolved claims, agreed to make certain tax payments to the State of Minas Gerais on behalf of certain customers that allegedly failed to properly make their tax payments ("tax portion"), and subsequently on October 20, 2023 entered into a related additional agreement (the "Related Agreement", and together with the Tax Resolution, the "Agreements") to make a contribution to the State of Minas Gerais to support its ESG-related efforts ("ESG portion"), recognizing a total amount of US$75.8 million in "Other liabilities", comprised of US$65.5 million as "Other Income and Expenses, net" and US$10.3 million as "Financial Expenses" related to the interest charged in connection with the VAT-related practices of its former customers. In funding this agreement, the Company applied an offset of US$25.0 million of VAT accumulated credits, paid a portion of US$1.5 million in cash up front, offset an amount of US$6.4 million which was classified as a judicial deposit, and will pay the remainder in up to 46 monthly installments, to be adjusted by the Brazilian federal funds rate ("SELIC") interest rate.

On February 8, 2024, a second and final Tax Resolution was filed with the MG Authorities whereby Nexa, without admitting primary responsibility for the resolved claims, agreed to make tax payments on behalf of certain customers, including interest and penalties, to the State of Minas Gerais, recognizing a total amount of US$27.1 million in "Other liabilities", comprised of US$21.4 million as "Other Income and Expenses, net" and US$5.7 million as "Financial Expenses" related to the interest charged in connection with the VAT-related practices of this former customers. In funding this agreement, the Company will apply an offset of US$10.8 million of VAT accumulated credits, will pay US$0.8 million in cash up front, and will pay the remainder in up to 59 monthly installments, to be adjusted by the SELIC interest rate.

This resolution concludes the MG Authorities' investigation with respect to the Company, and the Company does not expect any further developments or provisions with respect to these matters, although reserves its legal right to recover from certain customers the amounts that it has paid, or will pay, on their behalf in connection with the tax portion of the Agreements. These amounts will only be recognized upon recovery. For further details on this investigation, see Note 9(iv) to our consolidated financial statements.

Cerro Lindo stability agreement

We are engaged in ongoing tax-related discussions with the Peruvian tax authorities SUNAT related to the stability agreement of Cerro Lindo's operations. The Peruvian tax authority issued unfavorable tax decisions against the Company for the years-ended December 31, 2014, 2015, 2016 and 2017, arguing that the stability income tax rate (20%) granted by the stability agreement applies only to the income generated from 5,000 tons per day of its production (i.e., income exclusively related to the investments informed in the Cerro Lindo Feasibility Study), and not from Cerro Lindo's entire production capacity expanded over time. The total amount estimated for the contingency from 2014 to 2017 is US$189.8 million.

As of the date of this annual report, SUNAT is currently auditing the fiscal year-ended December 31, 2019 and concluded the review of the fiscal-year ended December 31, 2018, recognizing that part of the production was within the stabilization criteria. The contingency for 2018 was assessed at US$32.1 million. We decided to pay the total corresponding amount to obtain a reduction in fines and interest over such fines of 60%, thereby potentially reducing the contingency to US$18.3 million. We are proceeding with applicable defenses to the pending litigation. Discussions with SUNAT are expected to evolve in 2025, including potential audits of the years ended December 31, 2020 and 2021, which are the last fiscal years covered by the stability agreement, depending on the ongoing legal proceedings, which may impact Nexa's results, cash flow and liquidity. For further details on these legal proceedings, see Note 11(d) to our consolidated financial statements.

Cajamarquilla Transfer Pricing litigation

We are engaged in transfer pricing discussions in Peru, relating to the discount and premium applied by Nexa CJM in the export of refined zinc to its related parties, Votorantim and Nexa Resources. Nexa CJM has been assessed by SUNAT with respect to transfer pricing practices in 2014, 2015, 2016, 2017 and 2018.

In December 2024, Cajamarquilla received a new tax assessment related to the fiscal year 2018 ("CJM 2018") in the amount of US$31.2 million. In the same month, SUNAT released a decision for Nexa CJM's transfer pricing practices related to fiscal year 2017 ("CJM 2017"), denying defenses filed by the Company and maintaining its previous position. Nexa CJM paid the corresponding tax amounts and obtained a reduction of 60% for fines related to CJM 2018 and 40% for fines related to CJM 2017. These payments do not represent a recognition of the tax debt and Nexa CJM will continue to proceed with its defenses where applicable. After those payments, the tax contingency of CJM 2017 is now US$23.9 million and of CJM 2018 is now US$21.4 million. For more information on these legal proceedings, see note 11 (d) to our financial statements.

ARTICLES OF ASSOCIATION

Company objectives and purposes

We were incorporated in Luxembourg as a public limited liability company (*société anonyme*) on February 26, 2014. Our articles of association provide that our corporate purpose is to, among others, (i) carry out any trade, business or commercial activities whatsoever, including but not limited to the purchase, exchange and sale of goods and/or services to third parties; (ii) take participations and interests, in any form whatsoever, in any commercial, industrial, financial or other, Luxembourg or foreign companies or enterprises; (iii) acquire through participations, contributions, underwriting, purchases or options, negotiation or in any other way any securities, rights, patents and licenses and other property, rights and interest in property as we shall deem fit; (iv) generally to hold, manage, develop, sell or dispose of the same, in whole or in part, for such consideration as Nexa Resources may deem fit, and in particular for shares or securities of any company purchasing the same; (v) enter into, assist or participate in financial, commercial and other transactions; (vi) grant to any holding company, subsidiary or sister company, or any other company that belongs to the same group as Nexa Resources, any assistance, loans, advances or guarantees (in the latter case, even in favor of a third-party lender of any affiliates); (vii) borrow and raise money in any manner and to secure the repayment of any money borrowed; and (viii) generally to do all such other things as may appear to Nexa Resources to be incidental or conducive to the attainment of the above objects or any of them. We can perform all commercial, technical and financial operations, connected directly or indirectly in all areas as described above, in order to facilitate the accomplishment of its purpose, provided always that Nexa Resources will not enter into any transaction that would constitute a regulated activity of the financial sector without due authorization under Luxembourg law.

Our common shares are governed by Luxembourg law and our articles of association. Our articles of association were amended in June and August 2021. The following is a summary of the material terms of our common shares based on our articles of association and Luxembourg law. These rights may differ from those typically provided to shareholders of U.S. companies under the corporation laws of some states of the United States. We encourage you to read the complete form of our articles of association, filed as Exhibit 2.4 of this annual report on Form 20-F.

Common shares

On April 11, 2016, our shareholders approved the reduction of our share capital through the cancellation of 350,000,000 common shares, decreasing our share capital from US$1,280,505,254 to US$930,505,254.

On April 19, 2016, our shareholders approved the issuance of 110,910,811 new common shares fully paid via cash contributions by certain shareholders, increasing our capital from US$930,505,254 to US$1,041,416,065.

On June 28, 2017, our shareholders approved the reduction of our share capital through the cancellation of 200,000,000 common shares, decreasing our share capital from US$1,041,416,065 to US$841,416,065.

On September 18, 2017, our shareholders approved the reduction of our share capital through the cancellation of 300,000,000 common shares, decreasing our share capital from US$841,416,065 to US$541,416,065.

On October 6, 2017, our shareholders approved the reduction of our share capital through the cancellation of 428,595,552 common shares, decreasing our share capital from US$541,416,065 to US$112,820,513.

On October 31, 2017, our shareholders approved the issuance of 20,500,000 new common shares fully paid via cash contributions by certain shareholders, increasing our share capital from US$112,820,513 to US$133,320,513.

On September 13, 2018, our shareholders approved a general authorization to the Board of directors to establish share buyback programs for a period of three years. On September 20, 2018, our Board of directors approved a share buyback program under which we, directly or indirectly through our subsidiaries, may repurchase, from time to time, up to US$30.0 million of our outstanding common shares listed on the NYSE over a 12-month period beginning on November 6, 2018 and ending on November 6, 2019. As of March 25, 2019, we have repurchased 466,231 common shares, at an average price of US$10.63 per share, for an aggregate purchase price of US$4.96 million. All of the repurchased common shares were cancelled on June 4, 2020.

On June 4, 2020, our shareholders approved the reduction of our share capital through the cancellation of 881,902 treasury shares, decreasing our share capital from US$133,320,513 to US$132,438,611.

As of December 31, 2024, our issued share capital was US$132,438,611 represented by 132,438,611 common shares fully paid, with par value of US$1.00 per share. In addition to our issued share capital, we have an authorized share capital of US$231,924,819, represented by 231,924,819 common shares.

Distributions

Pursuant to our articles of association, the general meeting of shareholders may approve dividends, and the Board of directors may declare interim dividends, in each case to the extent permitted by Luxembourg law. Pursuant to our articles of association, the Board of directors may also declare distributions to our shareholders in the form of reimbursement of share premium to the extent permitted by Luxembourg law. Each common share entitles the holder to participate equally in any distributions, if and when declared by the general meeting of shareholders or, in the case of interim dividends or reimbursements of share premium, the Board of directors, out of funds legally available for such purposes.

Declared and unpaid distributions held by us for the account of the shareholders shall not bear interest. Under Luxembourg law, claims for unpaid distributions will lapse in our favor five years after the date such distribution has been declared.

For additional information regarding our policy on distributions, including procedures provided by Luxembourg law, see “Share ownership and trading—Distributions.”

Voting rights

There are no restrictions on the rights of Luxembourg or non-Luxembourg residents to vote our shares. All of our shareholders, including our public shareholders, hold common shares with identical voting rights, preferences and privileges. Each common share entitles the shareholder to attend a general meeting of shareholders in person or by proxy, to address the general meeting of shareholders and to vote. Each common share entitles the holder to one vote at the general meeting of shareholders.

The Board of directors may also decide to allow shareholders to vote by correspondence by means of a proxy form providing for a positive or negative vote or an abstention on each agenda item. The conditions for voting by correspondence are set out in the articles of association and in the convening notice.

The Board of directors may decide to arrange for shareholders to be able to participate in the general meeting by conference call, video conference or similar means of communication, whereby (i) the shareholders attending the meeting can be identified, (ii) all persons participating in the meeting can hear and speak to each other, (iii) the transmission of the meeting is performed on an ongoing basis and (iv) the shareholders can properly deliberate without the need for them to appoint a proxyholder who would be physically present at the meeting.

General meeting of shareholders

In accordance with Luxembourg law and our articles of association, any regularly constituted general meeting of our shareholders has the power to order, carry out or ratify acts relating to our operations to the extent that such decisions are the domain of the shareholders and not the Board of directors.

Our annual general meeting of shareholders shall be held at our registered office, or at such other place in Luxembourg as may be specified in the notice of the meeting, within six months after the end of the relevant financial year. Except as otherwise specified in our articles of association, resolutions at a general meeting of shareholders are adopted by a simple majority of shares present or represented and voting at such meeting.

A shareholder entitled to vote may act at any general meeting of shareholders by appointing another person (who need not be a shareholder) as his proxy, which proxy shall be in writing and comply with such requirements as determined by our Board with respect to the attendance to the general meeting, and proxy forms in order to enable shareholders to exercise their right to vote. All proxies must be received by us (or our agents) no later than the day determined by our Board of directors.

Issuance of shares and preferential subscription rights

Our shares may be issued pursuant to a resolution of the general meeting of shareholders. The general meeting of shareholders may also delegate the authority to issue shares to the Board of directors for a renewable period of five years. The Board of directors has been authorized to issue up to 231,924,819 common shares. Such authorization will expire five years after the date publication in the Luxembourg legal gazette (*Recueil Electronique des Sociétés et Associations*) of the minutes of the of the general meeting of shareholders held on June 4, 2020 (unless amended or extended by the general meeting of shareholders).

Each holder of shares has preferential subscription rights to subscribe for any issue of shares pro rata to the aggregate amount of such holder's existing holding of the shares. Each shareholder shall, however, have no preferential subscription right on shares issued for a contribution in kind.

Preferential subscription rights may be restricted or excluded by a resolution of the general meeting of shareholders, or by the Board of directors if the shareholders so delegate. The general meeting of shareholders has delegated to the Board of directors the power to cancel or limit the preferential subscription rights of the shareholders when issuing new shares, so long as the issuance of new shares is carried out through a public offering.

If we decide to issue new shares in the future and do not exclude the preferential subscription rights of existing shareholders, we will publish the decision by placing an announcement in the Luxembourg official journal *Recueil Electronique des Sociétés et Associations* and in a newspaper published in Luxembourg. The announcement will specify the period in which the preferential subscription rights may be exercised. Such period may not be shorter than 14 days from the publication of the offer. The announcement will also specify details regarding the procedure for exercise of the preferential subscription rights. Under Luxembourg law preferential subscription rights are transferable and tradable property rights.

Repurchase of shares

Nexa Resources is prohibited by the 1915 Law from subscribing for its own shares. Nexa Resources may, however, repurchase its own shares or have another person repurchase shares on its behalf, subject to certain conditions, including:

- prior authorization of the general meeting of shareholders setting out the terms and conditions of the proposed repurchase, including the maximum number of shares to be repurchased, the duration of the period for which the authorization is given (which may not exceed five years) and the minimum and maximum consideration per share;
- the repurchase may not reduce the net assets of Nexa Resources on a non-consolidated basis to a level below the aggregate of the issued share capital and the reserves that Nexa Resources must maintain pursuant to the 1915 Law or our articles of association;
- only fully paid-up shares may be repurchased; and
- the acquisition offer is made on the same terms and conditions to all the shareholders who are in the same position; however, listed companies may repurchase their own shares on the stock exchange without making an acquisition offer to the shareholders.

On September 13, 2018, our shareholders authorized us to purchase, acquire, receive or hold and sell shares of Nexa Resources in accordance with the 1915 Law and any other applicable laws and regulations. The authorization was effective immediately after the general meeting and valid for a period of three years. For more information, see "Share ownership and trading—Purchases of equity securities by the issuer and affiliated purchasers."

Form and transfer of shares

Our shares are issued in registered form only and are freely transferable. Luxembourg law does not impose any limitations on the rights of Luxembourg or non-Luxembourg residents to hold or vote our shares.

Under Luxembourg law, the ownership of registered shares is generally evidenced by the inscription of the name of the shareholder, the number of shares held by him or her in the shareholders' register, which is maintained at our registered office. Each transfer of shares is made by a written declaration of transfer recorded in our shareholders' register, dated and signed by the transferor and the transferee or by their duly appointed agent. We may accept and enter into its shareholders' register any transfer based on an agreement between the transferor and the transferee provided a true and complete copy of the agreement is provided to us.

Our articles of association provide that, in case our shares are recorded in the register of shareholders on behalf of one or more persons in the name of a securities settlement system or the operator of such a system, or in the name of a professional depositary of securities or any other depositary or of a sub-depositary designated by one or more depositaries, Nexa —subject to a confirmation in proper form received from the depositary—will permit those persons to exercise the rights attaching to those shares, including admission to and voting at general meetings of shareholders. The Board of directors may determine the requirements with which such confirmations must comply. Shares held in such manner generally have the same rights and obligations as any other shares recorded in our shareholder register(s).

TAXATION

Luxembourg tax considerations

Scope of Discussion

This summary is based on the laws of Luxembourg, including the Income Tax Law of December 4, 1967, as amended, the Municipal Business Tax Act of December 1, 1936, as amended and the Net Wealth Tax Act of October 16, 1934, as amended, to which we jointly refer as the "Luxembourg tax law", existing and proposed regulations promulgated thereunder, and published judicial decisions and administrative pronouncements, each as in effect on the date of this report or with a known future effective date. This discussion does not generally address any aspects of Luxembourg taxation other than income tax, corporate income tax, municipal business tax, withholding tax and net wealth tax. This discussion, while not being a complete analysis or listing of all of the possible tax consequences of holding and disposing of shares in Nexa Resources, addresses the material tax issues. Also, there can be no assurance that the Luxembourg tax authorities will not challenge any of the Luxembourg tax consequences described below; in particular, changes in law and/or administrative practice, as well as changes in relevant facts and circumstances, may alter the tax considerations described below.

For purposes of this discussion, a "Luxembourg shareholder" is any beneficial owner of shares that for Luxembourg income tax purposes is:

- an individual resident of Luxembourg under article 2 of the Luxembourg Income Tax Law ("LITL"), as amended; or
- a corporation or other entity taxable as a corporation that is organized under the laws of Luxembourg or effectively managed from Luxembourg under article 159 of the Income Tax Law, as amended.

This discussion does not constitute tax advice and is intended only as a general guide. Shareholders should also consult their own tax advisors as to the Luxembourg tax consequences of the ownership and disposition of our common shares. The summary applies only to shareholders who will own our common shares as capital assets and does not apply to other categories of shareholders, such as dealers in securities, trustees, insurance companies, collective investment schemes and shareholders who have, or who are deemed to have, acquired their shares in the capital of Nexa Resources by virtue of an office or employment.

Shareholders

Luxembourg income tax on dividends and similar distributions

A non-Luxembourg shareholder will not be subject to Luxembourg income taxes on dividend income and similar distributions in respect of our common shares, other than a potential Luxembourg withholding tax as described below, unless the shares are attributable to a permanent establishment, or a fixed place of business maintained in Luxembourg by such non-Luxembourg shareholder.

An individual Luxembourg shareholder will be subject to Luxembourg income tax on dividend income and similar distributions in respect of its shares in Nexa Resources at the applicable progressive rates. Such payments may benefit from a 50.0% exemption set forth in Article 115 15a of the LITL, subject to the conditions set out therein. If the 50.0% exemption applies, the applicable income tax will be levied on 50% of the gross amount of the dividends at the applicable progressive rates. Taxable dividends are also subject to dependence insurance contribution levied at a rate of 1.4% on the net income where certain Luxembourg shareholders are affiliated to the Luxembourg social security administration.

A corporate Luxembourg shareholder is subject to Luxembourg CIT (including an unemployment fund contribution) and municipal business tax ("MBT") at the aggregate rate of 23.87% in 2025 for entities having their statutory seat in Luxembourg City. The taxable basis of a corporate Luxembourg shareholder will, in principle, correspond to its accounting results, unless a specific treatment is provided for by the LITL. A corporate Luxembourg shareholder may benefit from the Luxembourg participation exemption regime with respect to dividends received if the following two conditions are met: (a) the shareholder holds or commits itself to hold at least 10.0% of the share capital of Nexa Resources or a participation with an acquisition price of at least €1.2 million for an uninterrupted period of at least twelve months and (b) the shareholder is a Luxembourg fully taxable corporation. If these cumulative conditions are met, dividends received by the corporate Luxembourg shareholder should be fully exempt from CIT and MBT at the level of the corporate Luxembourg shareholder.

If the conditions of the Luxembourg participation exemption regime with respect to dividends are not met, the corporate Luxembourg shareholders can still benefit from the aforementioned 50.0% exemption set forth in Article 115 15a of the LITL, subject to the conditions set out therein.

Luxembourg withholding tax—Share capital reductions or share premium reimbursements

Share capital reductions or share premium reimbursements made by Nexa Resources to the Luxembourg and non-Luxembourg shareholders, and stemming from contributions made by the shareholders, are in principle subject to a 15% Luxembourg withholding tax, unless they have been motivated by genuine economic reasons and provided that Nexa Resources does not have distributable reserves or profits available. Although genuine economic reasons are not defined by law, Luxembourg tax authorities may examine the given reasons. We do not intend to make capital reductions in the near future. Nexa Resources discloses distributable reserves, retained earnings and profits in its chart of accounts according to Decree dated June 10, 2009. As of December 31, 2024, we have the ability to pay dividends and share premiums. The share premium, if any, may be distributed to the shareholders in accordance with Luxembourg Commercial Companies Act by a resolution of the Board of directors. See "Share ownership and trading—Distributions".

Luxembourg withholding tax—Distributions to shareholders

A Luxembourg withholding tax of 15.0% is due on dividends and similar distributions made by Nexa Resources to its Luxembourg and non-Luxembourg shareholders unless a Luxembourg domestic dividend withholding tax exemption or a double tax treaty reduction or exemption is applicable, as described below. The tax will be withheld by Nexa Resources and remitted to the Luxembourg tax authorities within 8 days as of the date the income is made available to the Luxembourg and non-Luxembourg shareholders.

Exemption from Luxembourg withholding tax—Distributions to shareholders

Dividends paid by Nexa Resources will be exempt from Luxembourg withholding tax provided that the following cumulative conditions are met (or domestic exemption):

- at the date of the distribution, the shareholder holds at least 10% of the share capital of Nexa Resources or a participation with an acquisition price of at least €1.2 million for an uninterrupted period of at least twelve months; and

- the dividend is paid to a (i) fully taxable company resident in Luxembourg, (ii) a company resident in a EU Member State fulfilling the conditions of Article 2 of the Parent Subsidiary Directive and listed in the appendix to this directive as well as a Luxembourg permanent establishment of such a company, (iii) a company resident in a country with which Luxembourg has concluded a double tax treaty and which is fully subject to income tax comparable to the Luxembourg corporate income tax as well as a Luxembourg permanent establishment of such a company, (iv) a company resident of Switzerland and subject to tax without being exempt, (v) a company or a cooperative company resident in a Member State of the European Economic Area, other than a Member State of the EU, and that is fully subject to tax equivalent to the Luxembourg corporate income tax, or (vi) a Luxembourg permanent establishment of a company under (ii) or (v).

For a shareholder to benefit from such exemption upon a distribution date, Nexa Resources must file a properly competed form 900 with the Luxembourg tax authorities within 8 days following the earlier of (a) the payment date set in the distribution decision or (b) the day following the distribution decision date in case no payment date is fixed. Luxembourg tax authorities may request all relevant documentation showing fulfillment of the above-mentioned conditions (*e.g.*, including a tax residency certificate). Nexa makes no representation that this exemption procedure will be practicable with respect to shares held through a clearing system such as DTC (in the United States).

Alternatively, a shareholder may file a refund request (form 901bis, stamped and validated by the tax authorities of the State of residency of the shareholder) with the Luxembourg tax authorities before December 31 of the year following the taxable event (*i.e.*, the distribution). Nexa makes no representation that this refund procedure will be practicable for a shareholder residing in the United States or any other specific jurisdiction.

A shareholder that does not meet the twelve-month holding period described in the first bullet above can request a refund when the twelve-month period has elapsed. The refund request (form 901bis, stamped and validated by the tax authorities of the State of residency of the shareholder) has to be filed with the Luxembourg tax authorities before December 31 of the year following the taxable event.

Forms 900 and 901bis are generally made available on the website of the Luxembourg tax authorities (*Administration des contributions directes*).

The application of the dividend withholding tax exemption to taxable companies' residents in other EU member states or to their EU permanent establishments is not granted if the income allocated is part of a tax avoidance scheme.

Reduction of Luxembourg withholding tax—Distributions to shareholders

As mentioned above, pursuant to the provisions of certain bilateral treaties for the avoidance of double taxation concluded between Luxembourg and other countries, and if certain conditions are met, the aforementioned Luxembourg dividend withholding tax may be reduced or an exemption may apply. Many such treaties, including the double tax treaty with the United States, provide for a tax rate lower than 15 percent only for a shareholder that holds a substantial (generally, 10 percent or 25 percent) portion of a Luxembourg company's shares. Shareholders that hold such shares should consult their tax advisors to determine how to benefit from the reduction in withholding tax rates.

A shareholder that is a company resident in a country that has entered a double tax treaty with Luxembourg may qualify for the domestic exemption even if the treaty would not reduce the withholding tax rate applicable to dividends paid to that shareholder.

Luxembourg NWT

A non-Luxembourg shareholder will not be subject to Luxembourg net wealth tax ("NWT") unless the shares are attributable to a permanent establishment, or a fixed place of business maintained in Luxembourg by such non-Luxembourg shareholder.

Luxembourg individual shareholders are not subject to Luxembourg NWT. A Luxembourg fully taxable corporate shareholder should be subject to Luxembourg NWT in respect of the shares held in the capital of Nexa Resources unless it holds more than 10% or €1.2 million of our common shares.

Luxembourg capital gains tax upon disposal of shares

Capital gains derived by a non-Luxembourg shareholder on the sale of our common shares will not be subject to taxation in Luxembourg, unless one of the following conditions applies:

- the shareholder does not benefit from a double tax treaty and (i) holds shares in Nexa Resources representing more than 10% of the share capital of Nexa Resources and such shares were held for less than six months prior to their sale or (ii) has been a resident taxpayer in Luxembourg for at least fifteen years and had acquired nonresident status less than five years prior to the disposal; or

- our common shares are attributable to a permanent establishment, or a fixed place of business maintained in Luxembourg by such non-Luxembourg shareholder. In such case, the non-Luxembourg shareholder is required to recognize capital gains or losses on the sale of such shares, which will be subject to CIT and MBT, unless the Luxembourg participation exemption regime with respect to capital gains applies.

Capital gains realized upon the sale of our common shares by a Luxembourg resident individual will be subject to Luxembourg income tax at the level of the Luxembourg resident individual only in case of (i) speculation gains or (ii) gains realized on a substantial participation.

Speculation gains

Capital gains realized upon the sale of our common shares within a shareholding period not exceeding six months will be subject to personal income taxation (unless such capital gain does not exceed €500) in the hands of a Luxembourg resident individual.

Substantial participation

In case where the Luxembourg resident individual has held the shares for at least six months and had a substantial participation, the capital gains realized will be subject to income tax at a rate equal to half the normal progressive rate applicable. A participation is considered as a substantial participation when a Luxembourg resident individual, jointly with his/her spouse and children under the age of 18, holds or has held, directly or indirectly, at any time during the five years prior to the date of the sale, 10.0% or more of the share capital of Nexa Resources. A participation is also considered as a substantial participation when a Luxembourg resident individual acquired free of charge, within the five-year period preceding the transfer, a participation that was constituting a substantial participation in the hands of the alienator (or the alienators in case of successive transfers free of charge within the same five-year period).

Capital gains realized by the Luxembourg corporate shareholder (s*ociété de capitaux*) should be exempt from capital gains tax in Luxembourg if at the date of the disposal, the Luxembourg shareholder has held or undertakes to hold, for an uninterrupted period of at least 12 months, a direct participation which represents at least 10.0% of the share capital of Nexa Resources, or which acquisition price was at least €6.0 million. If these conditions are not met, the Luxembourg corporate shareholder would be fully taxed on the capital gains realized upon the sale of the common share. The exempt amount of the capital gains realized will be, however, reduced by the amount of any expenses related to the participation, including decreases in the acquisition cost that could have previously reduced such shareholder's Luxembourg taxable income.

ATAD rules

The European Council has adopted two Anti-Tax Avoidance Directives: Council Directive (EU) 2016/1164 of 12 July 2016 laying down rules against tax avoidance practices that directly affect the functioning of the internal market ("ATAD I") and Directive 2017/952/EU of 29 May 2017 amending ATAD I as regards hybrid mismatches with third countries ("ATAD II") that address many of the issues mentioned above. The measures included in ATAD I were implemented into Luxembourg law on December 21, 2018, and almost all of them have been applicable since January 1, 2019. The measures included in ATAD II were implemented into Luxembourg law on December 19, 2019, and almost all of them have been applicable since January 1, 2020, subject to certain exceptions. ATAD I and ATAD II may have a material impact on how returns to shareholders are taxed.

Pillar Two

Pillar Two is focused on implementing a global minimum tax designed to ensure that large multinationals pay a minimum effective tax rate of 15% in every jurisdiction they operate. Pillar Two is expected to apply to multinational groups with turnover in excess of €750 million. The Pillar Two proposals involve a framework of complex rules which, broadly, would impose top-up taxes on certain entities within a multinational group where the overall tax paid on the group's profit in any jurisdiction falls below the minimum 15% effective tax rate. The proposed rules for determining whether a top-up tax is required in respect of the group's profits in a jurisdiction and the allocation of any such top-up tax between the members of the group are detailed and are designed to prevent multinational groups from being able to structure around the rules. It should be noted that a group's effective tax rate in a jurisdiction may fall below the minimum 15% rate, and therefore a top-up tax may be required, even if that jurisdiction's statutory headline tax rate is over 15%. On December 15, 2022, the EU Member States adopted a Council Directive (2022/2523) on ensuring a global minimum level of taxation for multinational enterprise ("MNE") groups and large-scale domestic groups in the EU ("Minimum Tax Directive"). EU Member States had the obligation to implement the Minimum Tax Directive into their national laws before December 31, 2023. The Minimum Tax Directive was implemented into Luxembourg national law on December 22, 2023, and applies to fiscal years starting on or after December 31, 2023.

Peruvian tax considerations

The following is a general summary of material Peruvian tax matters, as in effect on the date of this report, and describes our understanding of the principal tax consequences of an investment in our common shares by a person or entity who is not considered a resident of Peru for tax purposes. This summary is not intended to be a comprehensive description of all the tax considerations that may be relevant to a decision to make an investment in the offered shares.

This summary is based on provisions of the Peruvian income tax law and its regulations in force as of the date hereof. No rulings from the Peruvian tax authorities or judicial rulings address the tax treatment of instruments similar to the shares of Nexa Resources. Accordingly, no assurance can be given that the Peruvian tax authorities will agree with the conclusions described below. If the Peruvian tax authorities were to take a position different from the conclusions described below, the Peruvian income tax consequences of investing in Nexa Resources may differ from those summarized below.

Sale, exchange or disposition of the shares or a beneficial interest therein

Investors who decide to invest in the shares of Nexa Resources hold the shares in book-entry form, in the name of a nominee holding such shares for the investors' benefit. Any future trading of such shares will be effected through a conveyance of the beneficial interest held by the investors thereupon through the designated clearing mechanism. Because the conveyance of such beneficial interest does not imply the actual transfer of shares, any capital gains resulting from the conveyance of the beneficial interest in such shares, obtained by a person or entity who is not considered a resident of Peru for Peruvian tax purposes, should not be subject to taxation in Peru.

Contrary to the conclusion stated above, if the sale of our common shares were to qualify as an "indirect transfer of Peruvian shares" (and the transfer of the beneficial interest in the shares were to be considered as an actual transfer of such shares), different rules would apply.

According to Peruvian income tax law, an "indirect transfer of Peruvian shares" is deemed to occur when there is a transfer of shares issued by a non-resident company which, in turn, owns—directly or through one or more companies—shares issued by a Peruvian company, and the following two conditions are concurrently met:

(i) during any of the 12 months preceding the transfer, the fair market value ("FMV") of the shares issued by the Peruvian company held directly or indirectly by the nonresident company which shares are being sold, is equivalent to 50% or more of the FMV of all the shares issued by said non-resident company; and

(ii) during any 12-month period, the shares transferred by a party, including those transferred by its related parties, represent at least 10% of the shares issued by such non-resident company.

Due to recent modifications to Peruvian income tax law, as of January 1, 2019, even if the abovementioned conditions are not met, an indirect transfer of Peruvian shares will also be deemed to exist if the "total value" of shares of the Peruvian company indirectly transferred within any 12-month period is equivalent to or higher than 40,000 Peruvian tax units (S/176 million or US$50.0 million approximately). Said "total value" is determined by multiplying: i) the "percentage" that the FMV of the shares issued by the Peruvian company held (directly or indirectly) by the non-resident company which shares are being transferred, represents with regard to the FMV of all the shares issued by said non-resident company; and ii) the price agreed for the shares issued by the non-resident company directly transferred. To determine the "total value" threshold, transfers made by those parties which qualify as related to the transferor should also be considered. Nonetheless, the "taxable base" shall be determined, in any case, per party, considering the transfers made by the latter within the abovementioned 12-month period, but excluding those transfers previously taxed.

In case the sale of the shares were to qualify as an "indirect transfer of Peruvian shares" (and the transfer of the beneficial interest on the shares were to be considered as an actual transfer of such shares), any capital gain resulting therefrom will be subject to a 30% tax rate in Peru.

In case the corporate investor that makes the indirect transfer of Peruvian shares has a branch or a permanent establishment with assigned assets in Peru, said corporation will be jointly and severally liable for any income tax that resulted from the transfer of Peruvian shares; it will also be obligated to present to the Peruvian tax authority all the information related to the Peruvian shares of the non-resident investor that are being sold, particularly the information referred to the FMV; participation percentages; capital increase or reduction; issuance and placement of shares or participations; reorganization processes; patrimonial values and balance sheets; etc. Investors should consult their own tax advisors about the consequences of the acquisition, ownership, and disposition of their investment in the offered shares or any beneficial interest therein, including the possibility that the tax consequences of investing in the offered shares may differ from the description above.

United States federal income tax considerations

The following is a summary of certain U.S. federal income tax considerations that are likely to be relevant to the purchase, ownership and disposition of our common shares by a U.S. Holder (as defined below).

This summary is based on provisions of the Internal Revenue Code of 1986, as amended (the "Code"), and U.S. Treasury regulations ("Regulations"), rulings and judicial interpretations thereof, in force as of the date hereof, and the U.S.-Luxembourg Treaty dated December 20, 2000 (as amended by any subsequent protocols) (the "Treaty"). Those authorities may be changed at any time, perhaps retroactively, so as to result in U.S. federal income tax consequences different from those summarized below.

This summary is not a comprehensive discussion of all of the tax considerations that may be relevant to a particular investor's decision to purchase, hold, or dispose of our common shares. In particular, this summary is directed only to U.S. Holders that hold common shares as capital assets and does not address tax consequences to U.S. Holders who may be subject to special tax rules, such as banks, brokers or dealers in securities or currencies, traders in securities electing to mark to market, financial institutions, life insurance companies, tax exempt entities, entities that are treated as partnerships for U.S. federal income tax purposes (or partners therein), holders that own or are treated as owning 10% or more of our common shares by vote or value, persons holding common shares as part of a hedging or conversion transaction or a straddle, nonresident alien individuals present in the United States for more than 182 days in a taxable year, or persons whose functional currency is not the U.S. dollar. Moreover, this summary does not address state, local or foreign taxes, U.S. federal estate and gift taxes, or the Medicare contribution tax applicable to net investment income of certain non-corporate U.S. Holders, or any alternative minimum tax consequences of acquiring, holding or disposing of common shares.

For purposes of this summary, a "U.S. Holder" is a beneficial owner of common shares that is a citizen or resident of the United States, a U.S. domestic corporation or that otherwise is subject to U.S. federal income taxation on a net income basis in respect of such common shares.

U.S. Holders should consult their tax advisors about the consequences of the acquisition, ownership, and disposition of the common shares, including the relevance to their particular situation of the considerations discussed below and any consequences arising under foreign, state, local or other tax laws.

Taxation of dividends

Subject to the discussion below under "Passive Foreign Investment Company Status," the gross amount of any distribution of cash or property with respect to our common shares that is paid out of our current or accumulated earnings and profits (as determined for U.S. federal income tax purposes) will generally be includible in a U.S. Holder's taxable income as ordinary dividend income on the day on which the U.S. Holder receives the dividend and will not be eligible for the dividends received deduction allowed to corporations under the Code.

We do not expect to maintain calculations of our earnings and profits in accordance with U.S. federal income tax principles. U.S. Holders therefore should expect that distributions generally will be treated as dividends for U.S. federal income tax purposes.

Dividends received by an individual with respect to the common shares will be subject to taxation at a preferential rate if the dividends are "qualified dividends." Subject to certain exceptions for short-term positions, dividends paid on the common shares will be treated as qualified dividends if:

- the common shares are readily tradable on an established securities market in the United States; and

- we were not, in the year prior to the year in which the dividend was paid, and are not, in the year in which the dividend is paid, a passive foreign investment company ("PFIC").

The common shares are listed on the NYSE and will qualify as readily tradable on an established securities market in the United States so long as they are so listed. Based on our consolidated financial statements and certain estimates of our gross income and gross assets, and relying on the Commodity Exception (as defined below under "Passive Foreign Investment Company Status"), we do not believe that we were a PFIC for our 2024 or 2023 taxable years, and we do not anticipate becoming a PFIC for our current taxable year or in the foreseeable future. Accordingly, we expect that dividends paid on the common shares will be treated as qualified dividends. U.S. Holders should consult their tax advisors regarding the availability of the reduced dividend tax rate in light of their own particular circumstances.

Subject to generally applicable limitations and conditions, Luxembourg dividend withholding tax paid at the appropriate rate applicable to the U.S. Holder may be eligible for a credit against such U.S. Holder's U.S. federal income tax liability. These generally applicable limitations and conditions include requirements recently adopted by the U.S. Internal Revenue Service ("IRS") in Regulations promulgated in December 2021, and any Luxembourg tax will need to satisfy these requirements in order to be eligible to be a creditable tax for a U.S. Holder. In the case of a U.S. Holder that either (i) is eligible for, and properly elects, the benefits of the Treaty, or (ii) consistently elects to apply a modified version of these rules under recently issued temporary guidance and complies with specific requirements set forth in such guidance, the Luxembourg tax on dividends will be treated as meeting these requirements and therefore as a creditable tax. In the case of all other U.S. Holders, the application of these requirements to the Luxembourg tax on dividends is uncertain, and we have not determined whether these requirements have been met. If the Luxembourg dividend tax is not a creditable tax for a U.S. Holder or the U.S. Holder does not elect to claim a foreign tax credit for any foreign income taxes paid or accrued in the same taxable year, the U.S. Holder may be able to deduct the Luxembourg tax in computing such U.S. Holder's taxable income for U.S. federal income tax purposes. Dividend distributions will constitute income from sources without the United States and, for U.S. Holders that elect to claim foreign tax credits, generally will constitute "passive category income" for foreign tax credit purposes.

The availability and calculation of foreign tax credits and deductions for foreign taxes depend on a U.S. Holder's particular circumstances and involve the application of complex rules to those circumstances. The temporary guidance discussed above also indicates that the Treasury and IRS are considering proposing amendments to the December 2021 Regulations and that the temporary guidance can be relied upon until additional guidance is issued that withdraws or modifies the temporary guidance. U.S. Holders should consult their own tax advisors regarding the application of these rules to their particular situations.

U.S. Holders that receive distributions of additional common shares or rights to subscribe for common shares as part of a pro rata distribution to all our shareholders generally will not be subject to U.S. federal income tax in respect of the distributions.

Taxation of dispositions of common shares

Subject to the discussion below under "—Passive Foreign Investment Company Status," a U.S. Holder generally will recognize gain or loss on the sale, exchange or other disposition of common shares in an amount equal to the difference, if any, between the amount realized upon the sale, exchange or other disposition and the U.S. Holder's adjusted tax basis in the common shares. A U.S. Holder's adjusted tax basis in its common shares generally will equal the purchase price for the common shares. Any gain or loss will be capital gain or loss and generally will be long-term capital gain or loss if the common shares have been held for more than one year. Long-term capital gain realized by a U.S. Holder that is an individual generally is subject to taxation at a preferential rate. The deductibility of capital losses is subject to limitations. Gain, if any, realized by a U.S. Holder on the sale or other disposition of the common shares generally will be treated as U.S. source income for U.S. foreign tax credit purposes.

Passive foreign investment company status

Special U.S. tax rules apply to investors in companies that are considered to be PFICs. We will be classified as a PFIC in a particular taxable year if either:

- 75 percent or more of our gross income for the taxable year is passive income; or
- the average percentage of the value of our assets that produce or are held for the production of passive income is at least 50 percent.

Passive income generally includes dividends, interest, royalties, rents, annuities, net gains from the sale or exchange of property producing such income, net foreign currency gains, and gains from commodities transactions other than gains that are active business gains from the sale of commodities or arise from “commodity hedging transactions,” within the meaning of the applicable rules (“Commodity Exception”).

Based on our consolidated financial statements and certain estimates of our gross income and gross assets, and relying on the Commodity Exception, we do not believe that we were a PFIC for our 2024 or 2023 taxable years, and we do not anticipate becoming a PFIC for our current taxable year or in the foreseeable future. However, since PFIC status will be determined by us on an annual basis and since such status depends upon the composition of our income and assets, and the nature of our activities (including our ability to qualify for the Commodity Exception or any similar exceptions), from time to time, there can be no assurance that we will not be considered a PFIC for any taxable year. In the event that, contrary to our expectation, we are classified as a PFIC in any year, and a U.S. Holder does not make a mark-to-market election, as described in the following paragraph, the U.S. Holder will be subject to a special tax at ordinary income tax rates on “excess distributions” (generally, any distributions that a U.S. Holder receives in a taxable year that are greater than 125 percent of the average annual distributions that the U.S. Holder has received in the preceding three taxable years, or the U.S. Holder’s holding period, if shorter), and gain that the U.S. Holder recognizes on the sale of the U.S. Holder’s shares. Under these rules, (a) the excess distribution or gain will be allocated ratably over the U.S. Holder’s holding period, (b) the amount allocated to the current taxable year and any taxable year prior to the first taxable year in which we are a PFIC will be taxed as ordinary income, and (c) the amount allocated to each of the other taxable years will be subject to tax at the highest rate of tax in effect for the applicable class of taxpayer for that year, and an interest charge for the deemed deferral benefit will be imposed with respect to the resulting tax attributable to each such other taxable year. Classification as a PFIC may also have other adverse tax consequences.

A U.S. Holder may be able to mitigate some of the unfavorable rules described in the preceding paragraph by electing to mark the common shares to market. If a U.S. Holder makes this mark-to-market election, the U.S. Holder will be required in any year in which we are a PFIC to include as ordinary income the excess of the fair market value of the U.S. Holder’s common shares at year-end over the U.S. Holder’s basis in those shares. If a U.S. Holder’s basis in the common shares exceeds the shares’ fair market value at the end of the U.S. Holder’s taxable year, the U.S. Holder will be entitled to deduct the excess as an ordinary loss, but only to the extent of its net mark-to-market gains from previous years. The U.S. Holder’s basis in the shares will be adjusted to reflect the gain or loss. In addition, any gain that the U.S. Holder recognizes upon the sale of the common shares will be taxed as ordinary income in the year of sale.

A U.S. Holder that owns an equity interest in a PFIC must annually file IRS Form 8621 and may be required to file other IRS forms. A failure to file one or more of these forms as required may toll the running of the statute of limitations in respect of each of the U.S. Holder’s taxable years for which such form is required to be filed. As a result, the taxable years with respect to which the U.S. Holder fails to file the form may remain open to assessment by the IRS indefinitely, until the form is filed.

U.S. Holders should consult their tax advisors regarding the potential application of the PFIC rules to an investment in the common shares.

Foreign financial asset reporting

Individual U.S. Holders that own “specified foreign financial assets” with an aggregate value in excess of US$50,000 on the last day of the taxable year or US$75,000 at any time during the taxable year are generally required to file an information statement along with their tax returns, currently on Form 8938, with respect to such assets. “Specified foreign financial assets” include any financial accounts held at a non-U.S. financial institution, as well as securities issued by a non-U.S. issuer that are not held in accounts maintained by financial institutions. Higher reporting thresholds apply to certain individuals living abroad and to certain married individuals. Regulations extend this reporting requirement to certain entities that are treated as formed or availed of to hold direct or indirect interests in specified foreign financial assets based on objective criteria. U.S. Holders who fail to report the required information could be subject to substantial penalties. In addition, the statute of limitations for assessment of tax would be suspended, in whole or part. Prospective investors are encouraged to consult with their tax advisors regarding the possible application of these rules, including the application of the rules to their particular circumstances.

Backup withholding and information reporting

Dividends paid on, and proceeds from the sale or other disposition of, the common shares to a U.S. Holder generally may be subject to the information reporting requirements of the Code and may be subject to backup withholding unless the U.S. Holder provides an accurate taxpayer identification number and makes any other required certification or otherwise establishes an exemption. Backup withholding is not an additional tax. The amount of any backup withholding from a payment to a U.S. Holder will be allowed as a refund or credit against the U.S. Holder's U.S. federal income tax liability, provided the required information is furnished to the IRS in a timely manner.

A holder that is a foreign corporation or a non-resident alien individual may be required to comply with certification and identification procedures in order to establish its exemption from information reporting and backup withholding.

EXCHANGE CONTROLS AND OTHER LIMITATIONS AFFECTING SECURITY HOLDERS

We are not aware of any governmental laws, decrees, regulations or other legislation in Luxembourg that restrict the export or import of capital, including the availability of cash and cash equivalents for use by our affiliated companies, or that affect the remittance of dividends, interest or other payments to non-resident holders of our securities, except for regulations restricting the remittance of dividends and other payments in compliance with United Nations and EU sanctions.

EVALUATION OF DISCLOSURE CONTROLS AND PROCEDURES

Our management, with the participation of our chief executive officer and chief financial officer, has evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2024. There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, effective disclosure controls and procedures can only provide reasonable assurance of achieving their control objectives.

We have evaluated, with the participation of our chief executive officer and chief financial officer, the effectiveness of our disclosure controls and procedures as of December 31, 2024. Based on our evaluation, our chief executive officer and chief financial officer concluded that our disclosure controls and procedures were effective as of December 31, 2024.

INTERNAL CONTROL OVER FINANCIAL REPORTING

Management report on internal control over financial reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting and for assessing its effectiveness.

Our internal control over financial reporting is a process designed by, or under the supervision of, our chief executive officer and our chief financial officer, and effected by our Board of directors, management and other employees, and it is designed to provide reasonable assurance regarding the reliability of financial reporting and of the preparation of our consolidated financial statements, in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board ("IFRS Accounting Standards").

Due to its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. In addition, projections of any evaluation of the effectiveness of internal control over financial reporting to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with our policies or procedures may deteriorate.

Our management has assessed the effectiveness of our internal control over financial reporting as of December 31, 2024, based upon the criteria established in Internal Controls—Integrated Framework (2013), issued by the Committee of Sponsoring Organizations of Treadway Commission ("COSO"). Based on this assessment and criteria, our management has concluded that our internal control over financial reporting was effective as of December 31, 2024.

Audit of the effectiveness of internal control over financial reporting

Our independent registered public accounting firm, PricewaterhouseCoopers Auditores Independentes Ltda., has audited the effectiveness of our internal control over financial reporting, as stated in their report as of December 31, 2024.

Changes in internal control over financial reporting

There were no changes in our internal controls over financial reporting during the fiscal year of 2024, which have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PRINCIPAL ACCOUNTANT FEES AND SERVICES

The following table summarizes the fees billed to us by our independent auditors PricewaterhouseCoopers Auditores Independentes Ltda. for professional services in 2024 and 2023.

	For the Year Ended December 31,	
	2024	**2023**
	(US$ thousand)	
Audit fees	1,695.2	1,839.7
Audit-related fees	371.5	128.4
Tax fees	-	-
Other fees	-	-
Total fees	**2,066.7**	**1,968.1**

"Audit fees" are the aggregate fees billed by PricewaterhouseCoopers Auditores Independentes Ltda. for the audit of our annual financial statements, the audit of the statutory financial statements of our subsidiaries, and reviews of interim financial statements and attestation services that are provided in connection with statutory and regulatory filings or engagements. They also include fees for services that only the independent auditor reasonably can provide, including the provision of comfort letters and consents in connection with statutory and regulatory filings and the review of documents filed with the SEC and other capital markets or local financial reporting regulatory bodies. "Audit-related fees" are fees charged by PricewaterhouseCoopers Auditores Independentes Ltda. for assurance and related services that are reasonably related to the performance of the audit or review of our consolidated financial statements and are not reported under "Audit fees". "Tax fees" are the aggregate fees billed by PricewaterhouseCoopers Auditores Independentes Ltda. for services rendered for tax compliance, tax advice and tax planning. "Other fees" are the aggregate fees billed by PricewaterhouseCoopers Auditores Independentes Ltda. for services related with assurance and review procedures not related with regulatory or financial reporting of our consolidated financial statements.

Nexa has established policies and procedures that require any engagement of our independent auditor for audit or non-audit services to be submitted to and pre-approved by the Audit Committee. In addition, our Audit Committee may delegate the authority to pre-approve non-audit services to one or more of its members. All non-audit services that are pre-approved pursuant to such delegated authority must be presented to the full Audit Committee at its first scheduled meeting following such pre-approval. Our Audit Committee also has the authority to recommend pre-approval policies and procedures to our Board of directors and for the engagement of our independent auditor's services.

INFORMATION FILED WITH SECURITIES REGULATORS

We are subject to various information and disclosure requirements in those countries in which our securities are traded, and we file financial statements and other periodic reports with the SEC and Canadian securities regulatory authorities.

- *United States*. We are subject to the information requirements of the Securities Exchange Act of 1934, as amended, and accordingly file reports and other information with the SEC. Our SEC filings are available to the public from the SEC at http://www.sec.gov. You may also inspect Nexa Resources' reports and other information at the offices of the New York Stock Exchange, 11 Wall Street, New York, New York 10005, on which our common shares are listed. For further information on obtaining copies of Nexa Resources' public filings at the NYSE, you should call (212) 656-5060.

- *Canada*. We must comply with certain Canadian periodic and ongoing disclosure rules under applicable Canadian provincial and territorial securities laws. However, with respect to the rules under applicable Canadian provincial and territorial securities laws, we are able to rely on certain exemptions from many of the requirements under such laws through our compliance with U.S. disclosures given our status in the U.S. as a foreign private issuer. Our Canadian filings are available to the public from the website maintained by the Canadian Securities Administrators at www.sedarplus.ca.

GLOSSARY

Brownfields project: An exploration or development project near or within an existing operation, which can share infrastructure and management.

Concentration: The process by which crushed, and ground ore is separated into metal concentrates and reject material through processes such as flotation.

Concentrate plant: A plant where metal concentration occurs.

Cut-off grade: is the grade (*i.e.,* the concentration of metal or mineral in rock) that determines the destination of the material during mining.

Development: The process of constructing a mining facility and the infrastructure to support the facility is known as mine development.

Diamond drilling: A method of drilling that uses a diamond bit, which rotates at the end of a drill rod or pipe.

Exploration: Activities associated with ascertaining the existence, location, extent or quality of a mineral deposit.

Exploration stage property: is a property that has no mineral reserves disclosed.

Greenfields project: An exploration or development project that is located outside the area of influence of existing mine operations and/or infrastructure and will be independently developed and managed.

Indicated Mineral Resource: is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of adequate geological evidence and sampling. The level of geological certainty associated with an indicated mineral resource is sufficient to allow a qualified person to apply modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.

***Inferred Mineral Resource*:** is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. The level of geological uncertainty associated with an inferred mineral resource is too high to apply relevant technical and economic factors likely to influence the prospects of economic extraction in a manner useful for evaluation of economic viability.

km: kilometer.

ktpd: thousand tonnes per day.

LBMA: The London Bullion Market Association.

LME: London Metal Exchange.

LOM: life of mine.

Measured Mineral Resource: is that part of a Mineral Resource for which quantity and grade or quality, are estimated on the basis of conclusive geological evidence and sampling. The level of geological certainty associated with a measured mineral resource is sufficient to allow a qualified person to apply modifying factors, as defined in this section, in sufficient detail to support detailed mine planning and final evaluation of the economic viability of the deposit.

Metal concentrate: The crushed and ground material obtained after concentration, including zinc, lead and copper concentrates. This is the product from our mining operations. Most of the zinc concentrate we produce is used in our smelting operations and the remaining portion, along with our lead and copper concentrates, is sold to our customers.

Metallic zinc: Pure metal (99.995% zinc) obtained from the electrodeposition of a zinc sulfate solution, free of impurities, through the Roaster-Leaching-Electrolysis (“RLE”) process.

Mineralization: The process or processes by which a mineral or minerals are introduced into a rock, resulting in a potentially valuable or valuable deposit.

Mineralized material: Mineral bearing material that has been physically delineated by one or more methods, including drilling and underground work, and is supported by sampling and chemical analysis. This material has been found to contain a sufficient amount of mineralization of an average grade of metal or metals to have economic potential that warrants further exploration evaluation. While this material is not currently or may never be classified as ore reserves, it is reported as mineralized material only if the potential exists for reclassification into the reserves category. This material cannot be classified in the reserves category until final technical, economic and legal factors have been determined. Under the SEC’s standards, a mineral deposit does not qualify as a reserve unless it can be economically and legally extracted at the time of reserve determination, and it constitutes a proven or probable reserve (as defined below).

Mineral Reserve: is an estimate of tonnage and grade or quality of indicated and measured mineral resources that, in the opinion of the qualified person, can be the basis of an economically viable project. More specifically, it is the economically mineable part of a measured or indicated mineral resource, which includes diluting materials and allowances for losses that may occur when the material is mined or extracted.

Mineral Resource: is a concentration or occurrence of material of economic interest in or on the Earth's crust in such form, grade or quality, and quantity that there are reasonable prospects for eventual economic extraction. A mineral resource is a reasonable estimate of mineralization, taking into account relevant factors such as cut-off grade, likely mining dimensions, location or continuity that, with the assumed and justifiable technical and economic conditions, is likely to, in whole or in part, become economically extractable.

Mine site: An economic unit comprised of an underground and/or open pit mine, a treatment plant and equipment and other facilities necessary to produce metals concentrates, in existence at a certain location.

NSR: Net Smelter Return is the net revenue that the owner of a mining property receives from the sale of the mine’s metal/nonmetal products less transportation and refining costs.

Open pit: Surface mining in which the ore is extracted from a pit. The geometry of the pit may vary with the characteristics of the ore body.

Ore: A mineral or aggregate of minerals from which metal can be economically mined or extracted.

Ore grade: The average amount of metal expressed as a percentage, grams per tonne or in ounces per tonne.

Ounces or oz: Unit of weight. A troy ounce equals 31.1034 grams. All references to ounces in this report are to troy ounces unless otherwise specified.

Probable Mineral Reserve: is the economically mineable part of an indicated and, in some cases, a measured mineral resource.

Production stage property: is a property with material extraction of mineral reserves.

Proven Mineral Reserve: is the economically mineable part of a measured mineral resource and can only result from conversion of a measured mineral resource.

Qualified Person: An individual who is a mineral industry professional with at least five years of relevant experience in the type of mineralization and type of deposit under consideration in the specific type of activity that person is undertaking on behalf of the registrant and an eligible member or licensee n good standing of a recognized professional organization at the time the technical report is prepared.

Reclamation: The process of stabilizing, contouring, maintaining, conditioning and/or reconstructing the surface of disturbed land (*i.e.*, used or affected by the execution of mining activities) to a state of “equivalent land capability.” Reclamation standards vary widely, but usually address issues of ground and surface water, topsoil, final slope gradients, overburden and revegetation.

Refining: The process of purifying an impure metal; the purification of crude metallic substances.

Secondary feed materials: By-products of industrial processes such as smelting and refining that are then available for further treatment/recycling. It can cover foundry ashes, zinc oxides from brass and bronze production, electric arc furnace ("EAF") dust and slags.

SHG: Special High Grade.

Skarn: Metamorphic zone developed in the contact area around igneous rock intrusions when carbonate sedimentary rocks are invaded by large amounts of silicon, aluminum, iron and magnesium. The minerals commonly present in a skarn include iron oxides, calc-silicates, andradite and grossularite garnet, epidote and calcite. Many skarns also include ore minerals. Several productive deposits of copper or other base metals have been found in and adjacent to skarns.

Tailings: Finely ground rock from which valuable minerals have been extracted by concentration.

Tonne: A unit of weight. One metric tonne equals 2,204.6 pounds or 1,000 kilograms. One short tonne equals 2,000 pounds. Unless otherwise specified, all references to "tonnes" in this report refer to metric tonnes.

Zinc equivalent: A metric used to compare mineralization that is comprised of different metals in terms of zinc. Copper, lead, silver and gold contents in our concentrate production have been converted to a zinc equivalent grade at the average benchmark prices for 2024, *i.e.*, US$2,779.0 per tonne (US$1.26 per pound) for zinc, US$9,146.8 per tonne (US$4.15 per pound) for copper, US$ 2,072.7 per tonne (US$0.94 per pound) for lead, US$28.3 per ounce for silver and US$2,386.2 per ounce for gold.

Zinc oxide: A chemical compound that results from the sublimation of zinc (Zn-metal) by oxygen in the atmosphere. Zinc oxide is in the form of powder or fine grains that is insoluble in water but very soluble in acid solutions.

EXHIBITS

Exhibit Number	
1	Amended and Consolidated Articles of Association of Nexa Resources S.A., dated as of August 27, 2021 (incorporated by reference to Exhibit 1 to our annual report on Form 20-F (file no. 001-38256) filed with the SEC on March 17, 2022).
2.1	Indenture with respect to the 6.500% Notes due 2028, dated June 18, 2020, among Nexa Resource S.A., as issuer, Nexa Resources Cajamarquilla S.A., Nexa Resources Peru S.A. and Nexa Recursos Minerais S.A., as guarantors, and The Bank of New York Mellon, as trustee, registrar, paying agent and transfer agent (incorporated by reference to Exhibit 2.1 to our annual report on Form 20-F (file no. 001-38256) filed with the SEC on March 22, 2021).
2.2	Indenture with respect to the 5.375% Notes due 2027, dated as of May 4, 2017, among VM Holding S.A., as issuer, Votorantim Metais Zinco S.A., Compañía Minera Milpo S.A.A. and Votorantim Metais Cajamarquilla S.A., as guarantors, and The Bank of New York Mellon, as trustee, registrar, paying agent and transfer agent (incorporated by reference to Exhibit 4.1 to our Registration Statement on Form F-1 (file no. 333-220552) filed with the SEC on September 21, 2017).
2.3	Indenture with respect to the 6.750% Notes due 2034, dated April 9, 2024, among Nexa Resources S.A., as issuer, Nexa Resources Cajamarquilla S.A., and Nexa Recursos Minerais S.A., as guarantors, and the Bank of New York Mellon, as trustee, registrar, paying agent and transfer agent.
2.4	Description of Securities
8	List of Subsidiaries
11	Insider Trading Policies and Procedures of Nexa Resources S.A.
12.1	Certification of Chief Executive Officer of Nexa Resources S.A. pursuant to Rules 13a-14 and 15d-14 under the Securities Exchange Act of 1934, as amended.
12.2	Certification of Chief Financial Officer of Nexa Resources S.A. pursuant to Rules 13a-14 and 15d-14 under the Securities Exchange Act of 1934, as amended.
13.1	Certification of Chief Executive Officer and Chief Financial Officer of Nexa Resources S.A., pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
15.1	Technical Report Summary on the Cerro Lindo Mine, Department of Ica, Peru – S-K 1300 Report (incorporated by reference to Exhibit 15.1 to our annual report on Form 20-F/A filed with the SEC on November 4, 2021).
15.2	Technical Report Summary on the Cerro Pasco Complex Integration, Pasco Province, Peru – S-K 1300 Report (incorporated by reference to Exhibit 15.2 to our annual report on Form 20-F filed with the SEC on March 27, 2024).
15.3	Technical Report Summary on the Vazante Polymetallic Operations, Minas Gerais, Brazil – S-K 1300 Report (incorporated by reference to Exhibit 15.3 to our annual report on Form 20-F/A filed with the SEC on November 4, 2021).
15.4	Technical Report Summary on the Aripuanã Zinc Project, State of Mato Grosso, Brazil – S-K 1300 Report (incorporated by reference to Exhibit 15.4 to our annual report on Form 20-F/A filed with the SEC on November 4, 2021).
15.5	Consent letter of Nexa's Qualified Persons.
97	Policy Relating to Recovery of Erroneously Awarded Compensation of Nexa Resources S.A. (incorporated by reference to Exhibit 97 to our annual report on Form 20-F filed with the SEC on March 27, 2024).
101.INS	XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

NEXA RESOURCES S.A.

By: /s/ Ignacio Rosado
Name: Ignacio Rosado
Title: *President and Chief Executive Officer*

By: /s/ José Carlos del Valle
Name: José Carlos del Valle
Title: *Senior Vice President of Finance and Group Chief Financial Officer*

Date: March 27, 2025

NEXA RESOURCES S.A. FINANCIAL STATEMENTS

Nexa Resources S.A.

Consolidated financial statements at December 31, 2024 and report of independent registered public accounting firm

---

nexa

Contents

Consolidated financial statements

Consolidated income statement 3

Consolidated statement of comprehensive income 4

Consolidated balance sheet 5

Consolidated statement of cash flows 6

Consolidated statement of changes in shareholders' equity 7

1 General information 9
2 Information by business segment 9
3 Basis of preparation of the consolidated financial statements 12
4 Principles of consolidation 17
5 Changes in the main accounting policies and disclosures 19
6 Net revenues 21
7 Expenses by nature 24
8 Mineral exploration and project evaluation 24
9 Other income and expenses, net 25
10 Net financial results 26
11 Current and deferred income tax 26
12 Financial risk management 30
13 Financial instruments 36
14 Fair value estimates 37
15 Cash and cash equivalents 40
16 Other financial instruments 40
17 Trade accounts receivables 43
18 Inventory 44
19 Other assets and other liabilities 45
20 Related parties 45
21 Property, plant and equipment 47
22 Intangible assets 51
23 Right-of-use assets and lease liabilities 52
24 Loans and financings 54
25 Trade Payables 57
26 Confirming Payables 57
27 Asset retirement, restoration and environmental obligations 58
28 Provisions 59
29 Contractual obligations 61
30 Shareholders' equity 63
31 Impairment of long-lived assets 66
32 Long-term commitments 71
33 Events after the reporting period 71
Report of Independent Registered Public Accounting Firm (PCAOB ID: 1351). 74

nexa

Nexa Resources S.A.

Consolidated income statement
Years ended on December 31
All amounts in thousands of US dollars, unless otherwise stated

	Note	2024	2023	2022
Net revenues	6	2,766,481	2,573,233	3,033,990
Cost of sales	7	(2,228,410)	(2,274,357)	(2,393,936)
Gross profit		**538,071**	**298,876**	**640,054**
Operating expenses				
Selling, general and administrative	7	(127,328)	(126,599)	(145,170)
Mineral exploration and project evaluation	8	(67,976)	(99,612)	(98,801)
Impairment loss of long-lived assets	31	(32,870)	(114,643)	(32,512)
Other income and expenses, net	9	(33,511)	(110,584)	(2,674)
		(261,685)	**(451,438)**	**(279,157)**
Operating income (loss)		**276,386**	**(152,562)**	**360,897**
Results from associates' equity				
Share in the results of associates		21,223	23,536	1,885
		21,223	**23,536**	**1,885**
Net financial results	10			
Financial income		24,028	25,793	25,018
Financial expenses		(243,695)	(209,891)	(169,778)
Other financial items, net		(149,793)	17,040	9,949
		(369,460)	**(167,058)**	**(134,811)**
(Loss) income before income tax		**(71,851)**	**(296,084)**	**227,971**
Income tax benefit (expense)	11 (a)	**(115,556)**	**4,274**	**(150,983)**
Net (loss) income for the year		**(187,407)**	**(291,810)**	**76,988**
Attributable to NEXA's shareholders		(205,030)	(291,968)	49,695
Attributable to non-controlling interests		17,623	158	27,293
Net (loss) income for the year		**(187,407)**	**(291,810)**	**76,988**
Weighted average number of outstanding shares – in thousands		132,439	132,439	132,439
Basic and diluted (losses) earnings per share – USD	30 (f)	(1.55)	(2.20)	0.38

The accompanying notes are an integral part of these consolidated financial statements

Nexa Resources S.A.

Consolidated statement of comprehensive income
Years ended on December 31
All amounts in thousands of US dollars, unless otherwise stated

	Note	2024	2023	2022
Net (loss) income for the year		**(187,407)**	**(291,810)**	**76,988**
Other comprehensive (loss) income, net of income tax - items that can be reclassified to the income statement				
Cash flow hedge accounting	16 (c)	(872)	732	(1,329)
Deferred income tax		981	(1,269)	998
Translation adjustment of foreign subsidiaries	30 (e)	(184,446)	81,413	64,460
		(184,337)	**80,876**	**64,129**
Other comprehensive (loss) income, net of income tax - items that cannot be reclassified to the income statement				
Changes in fair value of financial liabilities related to changes in the Company's own credit risk	24 (c)	(1,572)	(583)	521
Deferred income tax		535	198	(178)
Changes in fair value of investments in equity instruments	14 (c)	(1,256)	(1,466)	(3,608)
		(2,293)	**(1,851)**	**(3,265)**
Other comprehensive (loss) income for the year, net of income tax		**(186,630)**	**79,025**	**60,864**
Total comprehensive (loss) income for the year		**(374,037)**	**(212,785)**	**137,852**
Attributable to NEXA's shareholders		(378,759)	(217,840)	105,783
Attributable to non-controlling interests		4,722	5,055	32,069
Total comprehensive (loss) income for the year		**(374,037)**	**(212,785)**	**137,852**

The accompanying notes are an integral part of these consolidated financial statements

nexa

Nexa Resources S.A.

Consolidated balance sheet
Years ended on December 31
All amounts in thousands of US dollars, unless otherwise stated

Assets	**Note**	**2024**	**2023**
Current assets			
Cash and cash equivalents	15	620,537	457,259
Financial investments		19,693	11,058
Other financial instruments	16 (a)	5,279	7,801
Trade accounts receivables	17	140,793	141,910
Inventory	18	325,196	339,671
Recoverable income tax		7,575	15,193
Other assets	19	88,195	86,934
		1,207,268	**1,059,826**
Non-current assets			
Investments in equity instruments	14 (c)	5,093	5,649
Other financial instruments	16 (a)	3	92
Deferred income tax	11 (b)	236,887	235,073
Recoverable income tax		5,540	6,237
Other assets	19	135,726	129,614
Investments in associates		29,488	44,895
Property, plant and equipment	21	2,097,508	2,438,614
Intangible assets	22	834,687	909,279
Right-of-use assets	23	85,265	74,818
		3,430,197	**3,844,271**
Total assets		**4,637,465**	**4,904,097**
Liabilities and shareholders' equity			
Current liabilities			
Loans and financings	24 (a)	50,883	143,196
Lease liabilities	23 (b)	32,747	21,678
Other financial instruments	16 (a)	8,523	19,077
Trade payables	25	443,288	451,603
Confirming payables	26	268,175	234,385
Dividends payable		3,707	2,830
Asset retirement, restoration and environmental obligations	27	47,561	33,718
Provisions	28	13,481	-
Contractual obligations	29	31,686	37,432
Salaries and payroll charges		70,234	68,165
Tax liabilities		92,346	49,524
Other liabilities	19	82,662	31,186
		1,145,293	**1,092,794**
Non-current liabilities			
Loans and financings	24 (a)	1,711,750	1,582,370
Lease liabilities	23 (b)	63,152	55,727
Other financial instruments	16 (a)	28,611	27,045
Asset retirement, restoration and environmental obligations	27	231,825	281,201
Tax liabilities		96,563	17,292
Provisions	28	32,151	56,787
Deferred income tax	11 (b)	132,535	166,406
Contractual obligations	29	69,272	79,680
Other liabilities	19	66,020	92,758
		2,431,879	**2,359,266**
Total liabilities		**3,577,172**	**3,452,060**
Shareholders' equity	30		
Attributable to NEXA's shareholders		813,930	1,197,324
Attributable to non-controlling interests		246,363	254,713
		1,060,293	**1,452,037**
Total liabilities and shareholders' equity		**4,637,465**	**4,904,097**

The accompanying notes are an integral part of these consolidated financial statements

nexa

Nexa Resources S.A.

Consolidated statement of cash flows
Years ended on December 31
All amounts in thousands of US dollars, unless otherwise stated

	Note	2024	2023	2022
Cash flows from operating activities				
(Loss) Income before income tax		(71,851)	(296,084)	227,971
Depreciation and amortization	7	330,198	310,475	292,140
Impairment loss of long-lived assets	31	32,870	114,643	32,512
Share in the results of associates		(21,223)	(23,536)	(1,885)
Interest, foreign exchange and other financial effects		230,858	137,405	127,630
Loss on sale and write-off of property, plant and equipment	9	16,183	3,734	698
Gain on divestments	1 (a)	(9,028)	-	-
Other restoration obligations	9	-	6,960	-
Tax voluntary disclosure – VAT matters	9 (iv)	-	102,939	-
Changes in provisions and other assets impairments		(15,512)	(37,800)	84,393
Changes in fair value of loans and financings	24 (c)	3,627	525	1,472
Debt modification gain	24 (c)	(3,142)	-	-
Changes in fair value of derivative financial instruments	16 (c)	(194)	(12,514)	(14,947)
Changes in fair value of energy forward contracts	16 (d)	(81)	15,663	-
Changes in fair value of offtake agreement	16 (e)	3,347	(2,268)	(24,267)
Contractual obligations	29 (a)	21,084	10,121	10,565
Price cap on offtake agreement	16 (e)	(3,246)	-	-
Decrease (increase) in assets				
Trade accounts receivable		(85,208)	58,067	(29,215)
Inventory		(34,728)	127,002	(75,071)
Other financial instruments		(4,762)	13,271	8,648
Other assets		(117,318)	(70,948)	(72,607)
Increase (decrease) in liabilities				
Trade payables		139,089	(451)	(32,476)
Confirming payables		38,335	17,074	(16,348)
Other liabilities		82,980	(42,785)	(17,448)
Cash provided by operating activities		**532,278**	**431,493**	**501,765**
Interest paid on loans and financings	24 (c)	(128,068)	(113,018)	(109,263)
Interest paid on lease liabilities	23 (b)	(11,645)	(6,086)	(1,543)
Premium paid on bonds repurchase	24 (b)	(7,069)	-	(3,277)
Income tax paid		(35,776)	(56,191)	(118,719)
Net cash provided by operating activities		**349,720**	**256,198**	**268,963**
Cash flows from investing activities				
Additions of property, plant and equipment		(259,010)	(310,150)	(382,468)
Additions of intangible assets		(5,748)	(3,087)	(4,595)
Net sales of financial investments		(663)	19,556	10,647
Purchase of stake in subsidiary from non-controlling shareholders		510	-	-
Proceeds from the sale of property, plant and equipment		738	1,229	751
Proceeds from the sale of Morro Agudo		2,078	-	-
Dividends received	30 (g)	25,185	22,100	7,867
Investments in equity instruments	14 (c)	(700)	-	(7,000)
Acquisition of additional shares in associates		-	-	(4,136)
Net cash used in investing activities		**(237,610)**	**(270,352)**	**(378,934)**
Cash flows from financing activities				
New loans and financings	24 (c)	799,439	56,408	95,621
Debt issue costs	24 (c)	(7,577)	(74)	(128,533)
Payments of loans and financings	24 (c)	(681,475)	(27,087)	(24,639)
Payments of lease liabilities	23 (b)	(32,056)	(15,170)	(19,424)
Dividends paid	30 (g)	(15,529)	(23,713)	(68,466)
Contribution of non-controlling interest capital		(866)	-	-
Payments of share premium		-	(25,000)	(6,126)
Net cash provided by (used in) financing activities		**61,936**	**(34,636)**	**(151,567)**
Foreign exchange effects on cash and cash equivalents		(10,768)	8,223	15,547
Increase (decrease) in cash and cash equivalents		**163,278**	**(40,567)**	**(245,991)**
Cash and cash equivalents at the beginning of the year		457,259	497,826	743,817
Cash and cash equivalents at the end of the year		**620,537**	**457,259**	**497,826**
Non-cash investing and financing transactions				
Additions to right-of-use assets	23 (a)	(64,955)	(68,428)	(2,450)
Additions to property, plant and equipment		(18,581)	-	-
Write-offs of property, plant and equipment	21 (a)	16,579	4,089	1,449
Write-offs of right of use assets	23 (a)	(5,348)	(7,374)	-
Additions to intangible assets related to offtake agreement and other intangibles		-	-	(52,934)
Increase in investment in associates		-	-	(32,456)
Derecognition of Nexa’s share of Enercan’s property, plant and equipment, intangible assets and financial investments		-	-	46,858

The accompanying notes are an integral part of these consolidated financial statements

nexa

Nexa Resources S.A.

Consolidated statement of changes in shareholders' equity
At and for the years ended on December 31
All amounts in thousands of US dollars, unless otherwise stated

	Capital	Share premium	Additional paid-in capital	Retained earnings (cumulative deficit)	Accumulated other comprehensive loss	Total NEXA's shareholders	Non-controlling interests	Total shareholders' equity
At January 1, 2022 – Note 3.1.1 (f)	**132,438**	**1,043,755**	**1,245,418**	**(745,178)**	**(292,052)**	**1,384,381**	**258,007**	**1,642,388**
Net income for the year	-	-	-	49,695	-	49,695	27,293	76,988
Other comprehensive income for the year	-	-	-	-	56,088	56,088	4,776	60,864
Total comprehensive income for the year	**-**	**-**	**-**	**49,695**	**56,088**	**105,783**	**32,069**	**137,852**
Dividends distribution to NEXA's shareholders - USD 0.33 per share – note 30 (g)	-	-	-	(43,874)	-	(43,874)	-	(43,874)
Share premium distribution to NEXA's shareholders - USD 0.05 per share – note 30 (g)	-	(6,126)	-	-	-	(6,126)	-	(6,126)
Dividends distribution to non-controlling interests	-	-	-	-	-	-	(23,075)	(23,075)
Other equity movements	-	-	-	-	-	-	1,008	1,008
Total contributions by and distributions to shareholders	**-**	**(6,126)**	**-**	**(43,874)**	**-**	**(50,000)**	**(22,067)**	**(72,067)**
At December 31, 2022 – Note 3.1.1 (f)	**132,438**	**1,037,629**	**1,245,418**	**(739,357)**	**(235,964)**	**1,440,164**	**268,009**	**1,708,173**
Net (loss) income for the year	-	-	-	(291,968)	-	(291,968)	158	(291,810)
Other comprehensive income for the year	-	-	-	-	74,128	74,128	4,897	79,025
Total comprehensive (loss) income for the year	**-**	**-**	**-**	**(291,968)**	**74,128**	**(217,840)**	**5,055**	**(212,785)**
Share premium distribution to NEXA's shareholders – USD 0.19 per share – note 30 (g)	-	(25,000)	-	-	-	(25,000)	-	(25,000)
Dividends distribution to non-controlling interests – note 30 (g)	-	-	-	-	-	-	(18,351)	(18,351)
Total contributions by and distributions to shareholders	**-**	**(25,000)**	**-**	**-**	**-**	**(25,000)**	**(18,351)**	**(43,351)**
At December 31, 2023 – Note 3.1.1 (f)	**132,438**	**1,012,629**	**1,245,418**	**(1,031,325)**	**(161,836)**	**1,197,324**	**254,713**	**1,452,037**

The accompanying notes are an integral part of these consolidated financial statements

Nexa Resources S.A.

Consolidated statement of changes in shareholders' equity
At and for the years ended on December 31
All amounts in thousands of US dollars, unless otherwise stated

	Capital	Share premium	Additional paid-in capital	Retained earnings (cumulative deficit)	Accumulated other comprehensive loss	Total NEXA's shareholders	Non-controlling interests	Total shareholders' equity
At January 1, 2024	**132,438**	**1,012,629**	**1,245,418**	**(1,031,325)**	**(161,836)**	**1,197,324**	**254,713**	**1,452,037**
Net (loss) income for the year	-	-	-	(205,030)	-	(205,030)	17,623	(187,407)
Other comprehensive loss for the year	-	-	-	-	(173,729)	(173,729)	(12,901)	(186,630)
Total comprehensive loss for the year	**-**	**-**	**-**	**(205,030)**	**(173,729)**	**(378,759)**	**4,722**	**(374,037)**
Dividends distribution to non-controlling interests – note 30 (g)	-	-	-	-	-	-	(17,351)	(17,351)
Acquisition of non-controlling interests 30 (h)	-	-	-	(4,635)	-	(4,635)	3,769	(866)
Purchase of shares in subsidiary from non-controlling shareholders	-	-	-	-	-	-	510	510
Total distributions to shareholders	**-**	**-**	**-**	**(4,635)**	**-**	**(4,635)**	**(13,072)**	**(17,707)**
At December 31, 2024	**132,438**	**1,012,629**	**1,245,418**	**(1,240,990)**	**(335,565)**	**813,930**	**246,363**	**1,060,293**

The accompanying notes are an integral part of these consolidated financial statements

1 General information

Nexa Resources S.A. ("NEXA" or "Parent Company") is a public limited liability company (société anonyme) incorporated and domiciled in the Grand Duchy of Luxembourg. Its shares are publicly traded on the New York Stock Exchange ("NYSE").

The Company's registered office is located at 37A, Avenue J. F. Kennedy in the city of Luxembourg in the Grand Duchy of Luxembourg.

NEXA and its subsidiaries (the "Company") operate large-scale, mechanized underground and open pit mines, as well as smelters. The Company owns and operates three polymetallic mines in Peru and two polymetallic mines in Brazil, including the Aripuanã mine, which, at the end of June 2024, transitioned into an ongoing operation. Additionally, the Company owns and operates a zinc smelter in Peru and two zinc smelters in Brazil.

NEXA's majority shareholder is Votorantim S.A. ("VSA"), which holds 64.68% of its equity. VSA is a Brazilian privately-owned industrial conglomerate that holds ownership interests in metal, steel, cement, and energy companies, among others.

(a) Divestments

On March 19, 2024, Nexa Recursos Minerais S.A. (Nexa BR) announced the suspension of its mining operations at the Morro Agudo Complex in the state of Minas Gerais, Brazil, effective May 1, 2024. Subsequently, on April 5, 2024, Nexa BR signed a sale and purchase agreement to sell the Morro Agudo and Ambrosia mines (Morro Agudo CGU, classified within the mining segment operation).

On July 1, 2024, Nexa successfully concluded the sale of the Morro Agudo Complex. According to the sales agreement, Nexa was entitled to receive an amount of approximately BRL 60,565 thousand (approximately USD 10,895) from the purchaser.

On November 22, 2024, and December 23, 2024, the Company also concluded the sale of two non-operational subsidiaries, the Compañía Minera Cerro Colorado S.A.C. (owner of the greenfield Pukaqaqa Project) for the total amount of USD 4,300, recognizing a gain of USD 322, and the Minera Pampa de Cobre S.A.C. (owner of the Chapi copper mine) for the total amount of USD 251 recognizing a gain of USD 8,806. The total gain on these sales of USD13,278 is included in "Other income and expenses (net)".

2 Information by business segment

Business segment definition

The Company's Chief Executive Officer has been identified as the chief operating decision maker ("CODM") since the role encompasses authority over resource allocation decisions and performance assessment, mainly analyzing performance from the production obtained in the operations. The Company has identified two operating segments:

- Mining: consists of six long-life polymetallic mines, three located in the Central Andes of Peru and three located in Brazil (two in the state of Minas Gerais and one in the state of Mato Grosso). In addition to zinc, the Company produces substantial amounts of copper, lead, silver, and gold as by-products, which reduce the overall cost to produce mined zinc.
- Smelting: consists of three operating units, one located in Cajamarquilla in Peru and two located in the state of Minas Gerais in Brazil. The facilities recover and produce metallic zinc (SHG zinc and zinc alloys), zinc oxide and by-products, such as sulfuric acid.

Accounting policy

Segment performance is assessed based on Adjusted EBITDA, since net financial results, comprising financial income and expenses and other financial items, and income tax are managed at the corporate level and are not allocated to operating segments.

The Company defines Adjusted EBITDA as follows: net income (loss) for the year, adjusted by (i) share in the results of associates, depreciation and amortization, net financial results and income tax; (ii) addition of cash dividends received from associates; (iii) non-cash events and non-cash gains or losses that do not specifically reflect its operational performance for the specific period, such as: gain (loss) on sale of investments; impairment and impairment reversals; gain (loss) on sale of long-lived assets; write-offs of long-lived assets; remeasurement in estimates of asset retirement obligations; and other restoration obligations; and (iv) pre-operating and ramp-up expenses incurred during the commissioning and ramp-up phases of greenfield projects. In addition, management may adjust the effect of certain types of transactions that in its judgments are (i) events that are non-recurring, unusual or infrequent, and (ii) other specific events that, by their nature and scope, do not reflect Nexa's operational performance for the year.

The adjusted EBITDA is derived from internal information prepared in accordance with the International Financial Reporting Standards ("IFRS Accounting Standards") and based on accounting measurements and management reclassifications between income statement lines items, which are reconciled to the consolidated financial statements in the column "Adjustments", as shown in the tables below. These adjustments include reclassifications of certain overhead costs and revenues from "*Other income and expenses, net*" to "*Net Revenues, Cost of sales and/or Selling*", "*General and administrative expenses*".

The Company uses customary market terms for intersegment sales. The Company's corporate headquarters expenses are allocated to the operating segments to the extent they are included in the measures of performance used by the Chief operating decision maker (CODM).

The presentation of segments results and reconciliation to income before income tax in the consolidated income statement is as follows:

					2024
	Mining	**Smelting**	**Intersegment sales**	**Adjustments**	**Consolidated**
Net revenues	1,349,666	1,997,341	(604,034)	23,508	2,766,481
Cost of sales	(1,011,742)	(1,799,773)	604,034	(20,929)	(2,228,410)
Gross profit	**337,924**	**197,568**	**-**	**2,579**	**538,071**
Selling, general and administrative	(66,307)	(57,197)	-	(3,824)	(127,328)
Mineral exploration and project evaluation	(60,939)	(7,887)	-	850	(67,976)
Impairment loss of long-lived assets	(32,870)	-	-	-	(32,870)
Other income and expenses, net	(41,714)	7,984	-	219	(33,511)
Operating (loss) income	**136,094**	**140,468**	**-**	**(176)**	**276,386**
Depreciation and amortization	243,111	86,458	-	629	330,198
Miscellaneous adjustments	84,866	22,630	-	-	107,496
Adjusted EBITDA	**464,071**	**249,556**	**-**	**453**	**714,080**
Change in fair value of offtake agreement - note 16 (e) / (i)					(102)
Impairment loss of long-lived assets – note 31					(32,870)
Impairment (reversal) of other assets					(307)
Aripuanã ramp-up impacts (ii)					(25,158)
Loss on sale and write-off of property, plant and equipment					(16,183)
Remeasurement in estimates of asset retirement obligations - note 27 (a)					5,310
Remeasurement adjustment of streaming agreement - note 29					(21,084)
Change in fair value of energy forward contracts - note 16 (d)/(iii)					81
Other restoration obligations (iv)					(1,026)
Divestment and restructuring (v)					9,028
Dividends received in cash - note 30 (g)/(vi)					(25,185)
Miscellaneous adjustments					**(107,496)**
Depreciation and amortization					(330,198)
Share in Result of associate					21,223
Net financial results					(369,460)
Loss before income tax					**(71,851)**

					2023
	Mining	**Smelting**	**Intersegment sales**	**Adjustments**	**Consolidated**
Net revenues	1,090,276	1,946,661	(468,250)	4,546	2,573,233
Cost of sales	(1,026,178)	(1,726,271)	468,250	9,842	(2,274,357)
Gross profit	**64,098**	**220,390**	**-**	**14,388**	**298,876**
Selling, general and administrative	(61,690)	(61,097)		(3,812)	(126,599)
Mineral exploration and project evaluation	(90,238)	(9,374)	-	-	(99,612)
Impairment loss of long-lived assets	(109,347)	(5,296)	-	-	(114,643)
Other income and expenses, net	(67,876)	(26,412)	-	(16,296)	(110,584)
Operating (loss) income	**(265,053)**	**118,211**	**-**	**(5,720)**	**(152,562)**
					-
Depreciation and amortization	229,153	80,471	-	851	310,475
Miscellaneous adjustments	196,529	51,599	-	-	248,128
Adjusted EBITDA	**160,629**	**250,281**	**-**	**(4,869)**	**406,041**
Changes in fair value of offtake agreement (i)					2,268
Impairment loss of long-lived assets – note 31					(114,643)
Ramp-up expenses of greenfield projects (Aripuanã) (ii)					(15,494)
Loss on sale of property, plant and equipment					(3,734)
Remeasurement in estimates of asset retirement obligations					3,125
Remeasurement adjustment of streaming agreement – note 29					(10,121)
Change in fair value of energy forward contracts - note 16 (d)/(iii)					(15,663)
Tax voluntary disclosure – VAT matters – note 9					(86,906)
Other restoration obligations (iv)					(6,960)
Miscellaneous adjustments					**(248,128)**
Depreciation and amortization					(310,475)
Share in result of associates					23,536
Net financial results					(167,058)
Loss before income tax					**(296,084)**

					2022
	Mining	**Smelting**	**Intersegment sales**	**Adjustments**	**Consolidated**
Net revenues	1,248,027	2,466,967	(683,583)	2,579	3,033,990
Cost of sales	(904,370)	(2,190,530)	683,583	17,381	(2,393,936)
Gross profit	**343,657**	**276,437**	**-**	**19,960**	**640,054**
Selling, general and administrative	(64,219)	(60,287)	-	(20,664)	(145,170)
Mineral exploration and project evaluation	(88,867)	(9,934)	-	-	(98,801)
Impairment loss of long-lived assets	(32,276)	(236)	-	-	(32,512)
Other income and expenses, net	(32,787)	43,049	-	(12,936)	(2,674)
Operating (loss) income	**125,508**	**249,029**	**-**	**(13,640)**	**360,897**
Depreciation and amortization	206,540	77,904	-	7,696	292,140
Miscellaneous adjustments	110,993	(825)	-	-	110,168
Adjusted EBITDA	**443,041**	**326,108**	**-**	**(5,944)**	**763,205**
Changes in fair value of offtake agreement (i)					24,267
Impairment loss of long-lived assets – note 31					(32,512)
Ramp-up expenses of greenfield projects (Aripuanã) (ii)					(87,540)
Impairment of other assets					(9,302)
Loss on sale of property, plant and equipment					(698)
Remeasurement in estimates of asset retirement obligations					6,182
Remeasurement adjustment of streaming agreement – Note 29					(10,565)
Miscellaneous adjustments					**(110,168)**
Depreciation and amortization					(292,140)
Share in result of associates					1,885
Net financial results					(134,811)
Income before income tax					**227,971**

(i) This amount represents the change in the fair value of the offtake agreement described in note 16 (e), which is being measured at Fair value through profit and loss (“FVTPL”). This change in the fair value is a non-cash item and has not been considered in the Company’s Adjusted EBITDA calculation.

(ii) Excludes the impact of commissioning, pre-operating, and ramp-up expenses of greenfield projects. For the year 2024, corresponds to the effects of idle capacity costs of the Aripuanã of USD 25,499 and excludes the net reversal of the net realizable value provision of Aripuanã’s inventory of USD 341 (excluding the depreciation portion). Aripuanã completed its ramp-up phase at the end of the second quarter of 2024.

(iii) The fair value adjustment of the energy surplus resulting from electric energy purchase contracts of NEXA's subsidiary, Pollarix, as disclosed in note 16 (d). This change in the fair value is a non-cash item and has not been considered in the Company's Adjusted EBITDA calculation.

(iv) Change of provision related to estimated costs of anticipated additional obligations in relation to certain inactive industrial waste containment structures in Brazil that have been closed for more than 20 years and that do not contain mining tailings, water or liquid waste as disclosed in note 27 (a) (iii). As such, they have not contributed to Nexa's operational performance.

(v) Refers to the effects of restructuring obligations, and the gain or loss related to the divestments, as mentioned in note 9. These amounts are excluded from the Adjusted EBITDA calculation, as they do not specifically reflect Nexa's operational performance.

(vi) Refers to dividends received from associate company Campos Novos Energia S.A – Enercan, an entity focused on energy generation. As the purpose of Nexa's investment in Enercan is to secure long-term energy supply for its operations in Brazil, the chief operating decision maker (CODM) considers Nexa's energy costs for a given period together with dividends received from Enercan during such period. Nexa recognized its share of the assets, liabilities, revenues and expenses for its interest in Enercan until November 2022, when it ceased to be a jointly controlled operation. Beginning in 2024, Nexa includes these dividends in its segmented Adjusted EBITDA, as the CODM considers them jointly with Nexa's energy costs.

3 Basis of preparation of the consolidated financial statements

These consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards as issued by the International Accounting Standards Board (IFRS® Accounting Standards).

The consolidated financial statements have been prepared under the historical cost convention, except for certain financial assets and financial liabilities (including other financial instruments) measured at fair value at the end of each reporting period.

The consolidated financial statements of the Company for the year ended December 31, 2024, were approved for issue in accordance with a resolution of the Board of Directors on February 20, 2025.

3.1 Revision of the previously issued consolidated financial statements

During the third quarter of 2024, the Company identified an error in the previously issued consolidated financial statements as of and for the years ended December 31, 2023, and 2022 related to the recognition of contracts containing lease arrangements. The error resulted in the non-recognition of right-of-use assets and lease liabilities, as well as the misstatement of costs and expenses that should have impacted the Company's results through the amortization of right-of-use assets and interest expense on the lease liabilities, instead of being recorded as costs and operational expenses related to third-party services.

The Company's management performed a quantitative and qualitative analysis and concluded that the error was not material to the previously issued financial statements as of and for the years ended December 31, 2023, and 2022 that would require restatement of the previously issued financial statements. Despite the fact it was immaterial, the Company revised the comparative information for the years ended December 31, 2023, and 2022 to reflect the adjustments. The revisions reflect the recognition of right-of-use assets of USD 63,590 and lease liabilities of USD 68,187 in the Company's consolidated balance sheet as of December 31, 2023, and the related amounts affecting the Company's other financial statements for the years ended December 31, 2023, and 2022 are shown in the tables below. The effect of the error in periods prior to January 1, 2022, was recorded in retained earnings (or cumulative deficit) in the statement of changes in shareholders' equity as of January 1, 2022.

3.1.1 Consolidated financial impacts

The following tables present the adjustments and the revised figures to the previously issued consolidated financial statements.

(a) Consolidated income statement

	(As previously reported)		Adjustments		(Revised)	
	2023	**2022**	**2023**	**2022**	**2023**	**2022**
Cost of sales	(2,276,757)	(2,395,180)	2,400	1,244	(2,274,357)	(2,393,936)
Gross profit	**296,476**	**638,810**	**2,400**	**1,244**	**298,876**	**640,054**
Operating expenses						
Selling, general and administrative	(126,948)	(145,543)	349	373	(126,599)	(145,170)
Mineral exploration and project evaluation	(99,666)	(98,862)	54	61	(99,612)	(98,801)
	(451,841)	**(279,591)**	**403**	**434**	**(451,438)**	**(279,157)**
Operating (loss) income	**(155,365)**	**359,219**	**2,803**	**1,678**	**(152,562)**	**360,897**
Net financial results						
Financial income	25,503	25,018	290	-	25,793	25,018
Financial expenses	(204,184)	(168,694)	(5,707)	(1,084)	(209,891)	(169,778)
	(161,641)	**(133,727)**	**(5,417)**	**(1,084)**	**(167,058)**	**(134,811)**
Loss before income tax	**(293,470)**	**227,377**	**(2,614)**	**594**	**(296,084)**	**227,971**
Income tax benefit (expense)	**4,274**	**(150,983)**	**-**	**-**	**4,274**	**(150,983)**
Net (loss) income for the year	**(289,196)**	**76,394**	**(2,614)**	**594**	**(291,810)**	**76,988**
Attributable to NEXA's shareholders	(289,354)	49,101	(2,614)	594	(291,968)	49,695
Attributable to non-controlling interests	158	27,293	-	-	158	27,293
Net (loss) income for the year	**(289,196)**	**76,394**	**(2,614)**	**594**	**(291,810)**	**76,988**
Weighted average number of outstanding shares – in thousands	132,439	132,439	-	-	132,439	132,439
Basic and diluted loss per share – USD	(2.18)	0.37	(0.02)	0.01	(2.20)	0.38

(b) Consolidated balance sheet

	(As previously reported)	Adjustments	(Revised)
	2023		**2023**
Non-current assets			
Right-of-use assets	11,228	63,590	74,818
	3,780,681	**63,590**	**3,844,271**
Total assets	**4,840,507**	**63,590**	**4,904,097**
Liabilities and shareholders' equity			
Current liabilities			
Lease liabilities	3,766	17,912	21,678
	1,074,882	**17,912**	**1,092,794**
Non-current liabilities			
Lease liabilities	5,452	50,275	55,727
	2,308,991	**50,275**	**2,359,266**
Total liabilities	**3,383,873**	**68,187**	**3,452,060**
Shareholders' equity			
Attributable to NEXA's shareholders	1,201,921	(4,597)	1,197,324
Attributable to non-controlling interests	254,713	-	254,713
	1,456,634	**(4,597)**	**1,452,037**
Total liabilities and shareholders' equity	**4,840,507**	**63,590**	**4,904,097**

(c) Consolidated cash flow

	(As previously reported)		Adjustments		(Revised)	
	2023	**2022**	**2023**	**2022**	**2023**	**2022**
Loss before income tax	(293,470)	227,377	(2,614)	594	(296,084)	227,971
Depreciation and amortization	298,393	290,937	12,082	1,203	310,475	292,140
Interest and foreign exchange effects	131,988	126,545	5,417	1,085	137,405	127,630
Cash provided by operating activities	**416,608**	**498,883**	**14,885**	**2,882**	**431,493**	**501,765**
Interest paid on lease liabilities	(553)	(994)	(5,533)	(549)	(6,086)	(1,543)
Net cash provided by operating activities	**246,846**	**266,630**	**9,352**	**2,333**	**256,198**	**268,963**
Payments of lease liabilities	(5,818)	(17,091)	(9,352)	(2,333)	(15,170)	(19,424)
Net cash used in financing activities	**(25,284)**	**(149,234)**	**(9,352)**	**(2,333)**	**(34,636)**	**(151,567)**
Increase (decrease) in cash and cash equivalents	**(40,567)**	**(245,991)**	**-**	**-**	**(40,567)**	**(245,991)**
Cash and cash equivalents at the beginning of the year	497,826	743,817	-	-	497,826	743,817
Cash and cash equivalents at the end of the year	**457,259**	**497,826**	**-**	**-**	**457,259**	**497,826**
Non-cash investing and financing transactions						
Additions to right-of-use assets	(10,304)	(2,018)	(58,124)	(432)	(68,428)	(2,450)

(d) Consolidated Earnings per share

	(As previously reported)		Adjustments		(Revised)	
	2023	**2022**	**2023**	**2022**	**2023**	**2022**
Net (loss) income for the year attributable to NEXA's shareholders	(289,354)	49,101	(2,614)	594	(291,968)	49,695
Weighted average number of outstanding shares – in thousands	132,439	132,439	-	-	132,439	132,439
Earnings (losses) per share - USD	**(2.18)**	**0.37**	**(0.02)**	**0.01**	**(2.20)**	**0.38**

(e) Consolidated statement of comprehensive income

	(As previously reported)		Adjustments		(Revised)	
	2023	**2022**	**2023**	**2022**	**2023**	**2022**
Net (loss) income for the year	**(289,196)**	**76,394**	**(2,614)**	**594**	**(291,810)**	**76,988**
Translation adjustment of foreign subsidiaries	81,315	65,243	98	(783)	81,413	64,460
	80,778	**64,912**	**98**	**(783)**	**80,876**	**64,129**
Other comprehensive income (loss) for the year, net of income tax	**78,927**	**61,647**	**98**	**(783)**	**79,025**	**60,864**
Other comprehensive (loss) income for the year, net of income tax	**(210,269)**	**138,041**	**(2,516)**	**(189)**	**(212,785)**	**137,852**
Attributable to NEXA's shareholders	(215,324)	105,972	(2,516)	(189)	(217,840)	105,783
Attributable to non-controlling interests	5,055	32,069	-	-	5,055	32,069
Other comprehensive (loss) income for the year, net of income tax	**(210,269)**	**138,041**	**(2,516)**	**(189)**	**(212,785)**	**137,852**

(f) Consolidated statement of changes in shareholders' equity

	(As previously reported)				Adjustments				(Revised)			
	Retained earnings (cumulative deficit)	Accumulated other comprehensive income (loss)	Total NEXA's shareholders	Total shareholders' equity	Retained earnings (cumulative deficit)	Accumulated other comprehensive loss	Total NEXA's shareholders	Total shareholders' equity	Retained earnings (cumulative deficit)	Accumulated other comprehensive income (loss)	Total NEXA's shareholders	Total shareholders' equity
At January 1, 2022	**(746,308)**	**(289,030)**	**1,386,273**	**1,644,280**	**1,130**	**(3,022)**	**(1,892)**	**(1,892)**	**(745,178)**	**(292,052)**	**1,384,381**	**1,642,388**
Net loss for the year	49,101	-	49,101	76,394	594	-	594	594	49,695	-	49,695	76,988
Other comprehensive income (loss) for the year	-	56,871	56,871	61,647	-	(783)	(783)	(783)	-	56,088	56,088	60,864
Total comprehensive income (loss) for the year	**49,101**	**56,871**	**105,972**	**138,041**	**594**	**(783)**	**(189)**	**(189)**	**49,695**	**56,088**	**105,783**	**137,852**
At December 31, 2022	**(741,081)**	**(232,159)**	**1,442,245**	**1,710,254**	**1,724**	**(3,805)**	**(2,081)**	**(2,081)**	**(739,357)**	**(235,964)**	**1,440,164**	**1,708,173**

	(As previously reported)				Adjustments				(Revised)			
	Retained earnings (cumulative deficit)	Accumulated other comprehensive income (loss)	Total NEXA's shareholders	Total shareholders' equity	Retained earnings (cumulative deficit)	Accumulated other comprehensive income (loss)	Total NEXA's shareholders	Total shareholders' equity	Retained earnings (cumulative deficit)	Accumulated other comprehensive income (loss)	Total NEXA's shareholders	Total shareholders' equity
At January 1, 2023	**(741,081)**	**(232,159)**	**1,442,245**	**1,710,254**	**1,724**	**(3,805)**	**(2,081)**	**(2,081)**	**(739,357)**	**(235,964)**	**1,440,164**	**1,708,173**
Net loss for the year	(289,354)	-	(289,354)	(289,196)	(2,614)	-	(2,614)	(2,614)	(291,968)	-	(291,968)	(291,810)
Other comprehensive income (loss) for the year	-	74,030	74,030	78,927	-	98	98	98	-	74,128	74,128	79,025
Total comprehensive (loss) income for the year	**(289,354)**	**74,030**	**(215,324)**	**(210,269)**	**(2,614)**	**98**	**(2,516)**	**(2,516)**	**(291,968)**	**74,128**	**(217,840)**	**(212,785)**
At December 31, 2023	**(1,030,435)**	**(158,129)**	**1,201,921**	**1,456,634**	**(890)**	**(3,707)**	**(4,597)**	**(4,597)**	**(1,031,325)**	**(161,836)**	**1,197,324**	**1,452,037**

(g) Consolidated information by business segment

									2023
	(As previously reported)			Adjustments			(Revised)		
	Mining	Smelting	Consolidated	Mining	Smelting	Consolidated	Mining	Smelting	Consolidated
Cost of sales	(1,028,281)	(1,726,568)	(2,276,757)	2,103	297	2,400	(1,026,178)	(1,726,271)	(2,274,357)
Gross profit	**61,995**	**220,093**	**296,476**	**2,103**	**297**	**2,400**	**64,098**	**220,390**	**298,876**
Selling, general and administrative	(61,903)	(61,233)	(126,948)	213	136	349	(61,690)	(61,097)	(126,599)
Mineral exploration and project evaluation	(90,297)	(9,369)	(99,666)	59	(5)	54	(90,238)	(9,374)	(99,612)
Operating (loss) income	**(267,428)**	**117,783**	**(155,365)**	**2,375**	**428**	**2,803**	**(265,053)**	**118,211**	**(152,562)**
Depreciation and amortization	219,957	77,585	298,393	9,196	2,886	12,082	229,153	80,471	310,475
Adjusted EBITDA	**149,058**	**246,967**	**391,156**	**11,571**	**3,314**	**14,885**	**160,629**	**250,281**	**406,041**
Depreciation and amortization			(298,393)			(12,082)			(310,475)
Net financial results			(161,641)			(5,417)			(167,058)
Loss before income tax			**(293,470)**			**(2,614)**			**(296,084)**

	(As previously reported)			Adjustments			2022 (Revised)		
	Mining	**Smelting**	**Consolidated**	**Mining**	**Smelting**	**Consolidated**	**Mining**	**Smelting**	**Consolidated**
Cost of sales	(905,241)	(2,190,903)	(2,395,180)	871	373	1,244	(904,370)	(2,190,903)	(2,393,936)
Gross profit	**342,786**	**276,064**	**638,810**	**871**	**373**	**1,244**	**343,657**	**276,437**	**640,054**
Selling, general and administrative	(64,444)	(60,435)	(145,543)	225	148	373	(64,219)	(60,287)	(145,170)
Mineral exploration and project evaluation	(88,947)	(9,915)	(98,862)	80	(19)	61	(88,867)	(9,934)	(98,801)
Operating income (loss)	**124,332**	**248,527**	**359,219**	**1,176**	**502**	**1,678**	**125,508**	**249,029**	**360,897**
Depreciation and amortization	204,514	78,727	290,937	2,026	(823)	1,203	206,540	77,904	292,140
Adjusted EBITDA	**439,839**	**326,429**	**760,324**	**3,202)**	**(321)**	**2,881**	**443,041**	**326,108**	**763,205**
Depreciation and amortization			(290,937)			(1,203)			(292,140)
Net financial results			(133,727)			(1,084)			(134,811)
Income before income tax			**227,377**			**594**			**227,971**

(h) Consolidated changes in right-of-use

	(As previously reported) 2023					Adjustments 2023					(Revised) 2023				
	Buildings	**Machinery, equipment, and facilities**	**IT equipment**	**Vehicles**	**Total**	**Buildings**	**Machinery, equipment, and facilities**	**IT equipment**	**Vehicles**	**Total**	**Buildings**	**Machinery, equipment, and facilities**	**IT equipment**	**Vehicles**	**Total**
Balance at the beginning of the year															
Cost	7,300	18,106	282	18,830	44,518	8,482	14,214	756	(12,362)	11,090	15,782	32,320	1,038	6,468	55,608
Accumulated amortization	(4,467)	(15,394)	(84)	(17,678)	(37,623)	100	(3,880)	(473)	13,266	9,013	(4,367)	(19,274)	(557)	(4,412)	(28,610)
Balance at the beginning of the year	**2,833**	**2,712**	**198**	**1,152**	**6,895**	**8,582**	**10,334**	**283**	**904**	**20,103**	**11,415**	**13,046**	**481**	**2,056**	**26,998**
New contracts	375	7,109	117	2,703	10,304	73	49,131	-	8,920	58,124	448	56,240	117	11,623	68,428
Disposals and write-offs	-	(874)	-	-	(874)	-	(6,500)	-	-	(6,500)	-	(7,374)	-	-	(7,374)
Amortization	(1,034)	(1,874)	(61)	(1,884)	(4,853)	(190)	(10,021)	(153)	(1,718)	(12,082)	(1,224)	(11,895)	(214)	(3,602)	(16,935)
Remeasurement	197	(275)	(120)	-	(198)	795	422	86	-	1,303	992	147	(34)	-	1,105
Transfers	-	(114)	-	-	(114)	-	-	-	-	-	-	(114)	-	-	(114)
Foreign exchange effects	17	45	(1)	7	68	710	1,705	18	209	2,642	727	1,750	17	216	2,710
Balance at the end of the year	**2,388**	**6,729**	**133**	**1,978**	**11,228**	**9,970**	**45,071**	**234**	**8,315**	**63,590**	**12,358**	**51,800**	**367**	**10,293**	**74,818**
Cost	6,278	16,079	317	22,766	45,440	10,049	59,553	747	(4,227)	66,122	16,327	75,632	1,064	18,539	111,562
Accumulated amortization	(3,890)	(9,350)	(184)	(20,788)	(34,212)	(79)	(14,482)	(513)	12,542	(2,532)	(3,969)	(23,832)	(697)	(8,246)	(36,744)
Balance at the end of the year	**2,388**	**6,729**	**133**	**1,978**	**11,228**	**9,970**	**45,071**	**234**	**8,315**	**63,590**	**12,358**	**51,800**	**367**	**10,293**	**74,818**

(i) Consolidated changes in lease labilities

	(As previously reported) 2023	Adjustments	(Revised) 2023
Balance at the beginning of the year	**5,021**	**22,184**	**27,205**
New contracts	10,304	58,124	68,428
Leasing contract and write-offs	-	(6,790)	(6,790)
Payments of lease liabilities	(5,818)	(9,352)	(15,170)
Interest paid on lease liabilities	(553)	(5,533)	(6,086)
Remeasurement	(198)	1,303	1,105
Accrued interest– note 10	427	5,705	6,132
Foreign exchange effects	35	2,546	2,581
Balance at the end of the year	**9,218**	**68,187**	**77,405**
Current liabilities	3,766	17,912	21,678
Non-current liabilities	5,452	50,275	55,727

4 Principles of consolidation

The consolidated financial statements comprise the financial statements of NEXA and its direct and indirect subsidiaries (“subsidiaries”), which reflect the assets, liabilities and transactions of the Parent Company and its subsidiaries. Intercompany balances and transactions, which include unrealized profits, are eliminated. A list of the most relevant companies, including subsidiaries, associates and joint operations, and the accounting policies applied in the preparation of the consolidated financial statements are described below.

	Percentage of shares 2024	2023	Company Controls	Headquarter	Functional Currency	Activities
Subsidiaries						
Nexa Recursos Minerais S.A. – "NEXA BR"	100	100	Directly	Brazil	Real – BRL	Mining / Smelting
Nexa Resources Cajamarquilla S.A. - "NEXA CJM"	99.99	99.99	Directly	Peru	US Dollar - USD	Smelting
Nexa Resources US. Inc.	100	100	Directly	United States	US Dollar – USD	Trading
Exploraciones Chimborazo Metals & Mining	100	100	Directly	Ecuador	US Dollar – USD	Holding and others
L.D.O.S.P.E. Geração de Energia e Participações Ltda.	100	100	Indirectly	Brazil	Real – BRL	Energy
L.D.Q.S.P.E. Geração de Energia e Participações Ltda.	100	100	Indirectly	Brazil	Real – BRL	Energy
L.D.R.S.P.E. Geração de Energia e Participações Ltda.	100	100	Indirectly	Brazil	Real – BRL	Energy
Mineração Santa Maria Ltda.	99.99	99.99	Indirectly	Brazil	Real – BRL	Mining projects
Pollarix S.A. - "Pollarix" (i)	33.33	33.33	Indirectly	Brazil	Real – BRL	Energy
Karmin - Holding Ltda.	100	100	Indirectly	Brazil	Real - BRL	Holding and others
Mineração Rio Aripuanã Ltda.	100	100	Indirectly	Brazil	Real – BRL	Holding and others
Votorantim Metals Canada Inc.	100	100	Indirectly	Canada	Canadian dollar – CAD	Holding and others
Nexa Resources El Porvenir S.A.C. – “El Porvenir”	99.99	99.99	Indirectly	Peru	US Dollar – USD	Mining
Minera Pampa de Cobre S.A.C (ii)	-	99.99	Indirectly	Peru	US Dollar – USD	Mining
Nexa Resources Perú S.A.A. – "NEXA Peru"	83.55	83.55	Indirectly	Peru	US Dollar – USD	Mining
Nexa Resources Atacocha S.A.A. - "NEXA Atacocha" (iii)	86.65	66.62	Indirectly	Peru	US Dollar – USD	Mining
Nexa Resources UK Ltd. – "NEXA UK"	100	100	Indirectly	United Kingdom	US Dollar – USD	Mining
Nexa Energy Comercializadora de Energia Ltda.	100	-	Indirectly	Brazil	Real – BRL	Energy
Associates						
Campos Novos Energia S.A. – "Enercan"	22.44	22.44		Brazil	Real - BRL	Energy

(i) Nexa, through its wholly owned subsidiary NEXA BR, holds 100% of the common shares of Pollarix (representing 33% of the total shares) which have the total voting rights. Auren a subsidiary of VSA, holds 100% of the preference shares (representing 67% of the total shares), which have the right to receive dividends 93% higher than the amount received by each common share.

(ii) On December 20, 2024, the Group sold 100% of the common shares of Minera Pampa de Cobre S.A.C, for further information refer to note 1(a).

(iii) For further details about this change refer to note 30 (h).

(a) Subsidiaries

Subsidiaries include all entities over which the Company has control. The Company controls an entity when it (i) has the power over the entity; (ii) is exposed, or has the right, to variable returns from its involvement with the entity; and (iii) has the ability to affect those returns through its power over the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Company, except when the predecessor basis of accounting is applied. Subsidiaries are unconsolidated from the date that control ceases.

Accounting policies of subsidiaries are usually consistent with the policies adopted by the Company. If there are differences, an adjustment is made in the consolidation process.

Non-controlling interests in the subsidiaries' equity and results are shown separately in the consolidated balance sheet, income statement, statement of comprehensive income and statement of changes in shareholders' equity. A change in a subsidiary's ownership interest, without loss of control, is accounted for as an equity transaction.

If the Company loses control over a subsidiary, it derecognizes the related assets, liabilities, non-controlling interests and other equity components and any resultant gain or loss is recognized in the income statement. Any investment retained is recognized at fair value.

In general, there is a presumption that a majority of voting rights results in control. When the Company has less than a majority of the voting rights of an investee, it considers all relevant facts and circumstances to determine whether it has control over the investee. This may include contractual arrangements with the other holders of voting rights in the investee; rights arising from other contractual arrangements; and the Company's voting rights and potential voting rights that will give it the practical ability to direct the relevant activities of the investee unilaterally.

Intercompany transactions, balances, and unrealized gains on transactions between companies in the consolidated group are eliminated in full on consolidation. Unrealized losses are also eliminated unless the transaction indicates impairment of the transferred asset.

(b) Associates

Associates are initially recognized at cost and adjusted thereafter by the equity method of accounting. An entity is considered to be an associate when the Company is able to exercise significant influence over the financial and operating policy decisions of the entity, without having control of the entity.

(c) Transaction with non-controlling interests

Transactions with non-controlling interests that do not result in a loss of control are recognized within shareholders' equity as transactions with equity owners of the consolidated group. A change in ownership interest results in an adjustment between the carrying amounts of the controlling and non-controlling interests to reflect their relative interests in the subsidiary. Any difference between the amount of the adjustment to non-controlling interests and any consideration paid or received is recognized in Additional paid in capital within shareholders' equity.

(d) Foreign currency translation

(i) Functional and presentation currency

Items included in the financial statements of each of the Company's entities are measured using the currency of the primary economic environment in which each entity operates ("the functional currency"). The Company's consolidated financial statements are presented in US Dollars ("USD"), which is NEXA's functional currency and the Company's reporting currency.

(ii) Transactions and balances

Foreign currency transactions are initially recorded by each of the Company's entities at their respective functional currency spot rates at the date the transaction is recognized. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies at the functional currency spot rate at the end of each reporting period are recognized in the income statement. Non-monetary items that are measured at historical cost in a foreign currency are translated using the exchange rate at the date of the initial transaction. Translation differences on assets and liabilities carried at fair value are reported as part of the fair value gain or loss.

(iii) Consolidated entities

The results of operations and financial position of the Company's entities that have a functional currency different from the Company's reporting currency are translated into the reporting currency as follows:

- Assets and liabilities for each balance sheet presented are translated at the closing rate at the date of that balance sheet;
- Income and expenses for each income statement and statement of comprehensive income presented are translated at average exchange rates for the annual period of that income statement and statement of comprehensive income, which are a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates; and

All resulting exchange differences are recognized in other comprehensive income and accumulated in a separate component of shareholders' equity. When a foreign operation is totally or partially disposed, the translation adjustments that were previously recorded in equity are reclassified to the income statement.

5 Changes in the main accounting policies and disclosures

(a) New standards and amendments – applicable as of January 1, 2024

The Company applied for the first time certain standards and amendments that are effective for annual periods beginning on January 1, 2024. The adoption of these new standards and amendments did not have a material impact on the Company's consolidated financial statements. The amendments to IAS 7 and IFRS 7 related to Supplier Finance Arrangements were early adopted by the Company in the financial statements at December 31, 2023. The Company has not early adopted any other standard, amendment or interpretation that has been issued but not yet effective.

Classification of Liabilities as Current or Non-current and Non-current liabilities with covenants –Amendments to IAS 1

The amendments to IAS 1 specify the requirements for classifying liabilities as current or non-current depending on the rights to defer settlement at the end of the reporting period.

In addition, an entity is required to disclose when a liability arising from a loan agreement is classified as non-current and the entity's right to defer settlement is contingent on compliance with future covenants within twelve months. These disclosures include the carrying amount of the liability, the information about the covenants; and facts and circumstances, if any, indicating that the entity might have difficulty complying with the covenants. Further disclosure about covenants is presented in note 24.

Lease Liability in Sale and Leaseback – Amendments to IFRS 16

The amendments in IFRS 16 specify the requirements that a seller-lessee uses in measuring the lease liability arising in a sale and leaseback transaction, to ensure the seller-lessee does not recognise any amount of the gain or loss that relates to the right of use it retains.

(b) New standards and interpretations not yet adopted

There were some standards and amendments that have been issued but are not yet effective, the impact on the Company's operations or financial statements is under evaluation.

Amendments to IAS 21 - Lack of Exchangeability

In August 2023, the IASB issued amendments to IAS 21 The Effects of Changes in Foreign Exchange Rates to specify how an entity should assess whether a currency is exchangeable and how it should determine a spot exchange rate when exchangeability is lacking.

The amendments also require disclosure of information that enables users of its financial statements to understand how the currency not being exchangeable into the other currency affects, or is expected to affect, the entity's financial performance, financial position and cash flows. The amendments will be effective for annual reporting periods beginning on or after 1 January 2025. Early adoption is permitted but will need to be disclosed. When applying the amendments, an entity cannot restate comparative information.

The amendments are not expected to have a material impact on the Company's Consolidate financial statements.

New standard - IFRS 18 - Presentation and Disclosure in Financial Statements

In April 2024, the IASB issued IFRS 18, which replaces IAS 1 Presentation of Financial Statements. IFRS 18 introduces new requirements for presentation within the statement of profit or loss, including specified totals and subtotals. Furthermore, entities are required to classify all income and expenses within the statement of profit or loss into one of five categories: operating, investing, financing, income taxes and discontinued operations, whereof the first three are new.

It also requires disclosure of newly defined management-defined performance measures, subtotals of income and expenses, and includes new requirements for aggregation and disaggregation of financial information based on the identified 'roles' of the primary financial statements (PFS) and the notes.

In addition, narrow-scope amendments have been made to IAS 7 Statement of Cash Flows, which include changing the starting point for determining cash flows from operations under the indirect method, from 'profit or loss' to 'operating profit or loss' and removing the optionality around classification of cash flows from dividends and interest, due to this changes there were consequential amendments to several other standards.

IFRS 18, and the amendments to the other standards, is effective for reporting periods beginning on or after 1 January 2027, but earlier application is permitted and must be disclosed. IFRS 18 will apply retrospectively.

The Company is currently working to identify the impacts to it financial statements regarding this new standard and the consequential amendments to other standards.

Amendments to IFRS 9 and IFRS 7 - Classification and Measurement of Financial Instruments

In May 2024, the IASB issued targeted amendments to IFRS 9 and IFRS 7 to respond to recent questions arising in practice, and to include new requirements not only for financial institutions but also for corporate entities. These amendments should clarify the date of recognition and derecognition of some financial assets and liabilities, with a new exception for some financial liabilities settled through an electronic cash transfer system, include further guidance for assessing whether a financial asset meets the payments of principal and interest (SPPI) criterion, define additional disclosures for certain instruments with contractual terms that can change cash flows (such as some financial instruments with features linked to the achievement of environment, social and governance targets), and update the disclosures for equity instruments designated at fair value through other comprehensive income (FVOCI).

The amendments will become effective for annual periods starting on or after January 1, 2026. Early adoption is permitted, with the option to adopt the amendments early for contingent features only.

The Company is currently working on identifying all the impacts the amendments will have on its financial statements.

Amendments to IFRS 9 and IFRS 7 - Classification and disclosure of own use and hedge accounting in 'Contracts Referencing Nature-dependent Electricity'

In December 2024, the IASB amended IFRS 9 and IFRS 7 to address the classification and disclosure of own use and hedge accounting in 'Contracts Referencing Nature-dependent Electricity'. The amendments pertain to own-use requirements, and hedge accounting requirements, together with related disclosures. The scope of the amendments is narrow and applies only to contracts meeting the specified scoping characteristics.

The effective date of the amendments is for annual reporting periods beginning on or after January 1, 2026, with early application permitted.

The Company is currently working on identifying all the impacts the amendments will have on its financial statements.

(c) Critical estimates, assumptions and judgments

The preparation of the Company's consolidated financial statements requires the use of estimates, assumptions, and judgments that affect the reported amounts of revenues, expenses, assets, and liabilities, as well as the accompanying disclosures and the disclosure of contingent liabilities as of the reporting date. By definition, critical estimates, assumptions, and judgments seldom equal the actual results and are continually evaluated to reflect changing expectations about future events. Management must also exercise judgment when applying the Company's accounting policies.

This note provides an overview of the areas that involve a higher degree of judgment or complexity, and of items which are more likely to be materially adjusted due to estimates and assumptions turning out to be wrong due to their uncertainty. Detailed information about each of these estimates, assumptions and judgments is included in other notes together with information about the basis of calculation for each affected item in the financial statements.

The critical accounting estimates, assumptions and judgments applied by the Company in the preparation of these financial statements are as follows:

- estimation of current and deferred income taxes – note 11
- estimation of fair value of financial instruments – note 14
- estimation of impairment of trade accounts receivables – note 17
- estimation of the net realizable value of inventories – note 18
- estimation of quantification of mineral reserves and resources for useful life calculation – note 22
- estimation of asset retirement, restoration and environmental obligations – note 27
- estimation of provisions for legal claims – note 28
- estimation of contractual obligations – note 29
- estimation of impairment of long-lived assets – note 31

Estimates, assumptions and judgments are continuously evaluated. They are based on historical experience and other factors, including expectations of future events that may have a financial impact on the Company and that are believed to be reasonable under the circumstances.

6 Net revenues

Accounting policy

Revenues represent the amount of the consideration received or receivable for the sale of goods in the ordinary course of the Company's activities. Revenues are shown net of value-added tax, returns, rebates and discounts, after eliminating sales between the consolidated companies.

The Company recognizes revenues when a performance obligation is satisfied by transferring a promised good or service to a customer. The asset is transferred when the customer obtains control of that asset.

To determine the point in time at which a customer obtains control of a promised asset the Company considers the following indicators: (i) the Company has a present right to payment for the asset; (ii) the customer has legal title to the asset; (iii) the Company has transferred physical possession of the asset; (iv) the customer has the significant risks and rewards of ownership of the asset; (v) the customer has accepted the asset.

Identification and timing of satisfaction of performance obligations

The Company has two distinct performance obligations included in certain sales contracts:

(i) the promise to provide goods to its customers; and (ii) the promise to provide freight and to contract insurance services to its customers.

Promise to provide goods: this performance obligation is satisfied when the control of such goods is transferred to the final customer, which is substantially determined based on the Incoterm agreed upon in each of the contracts with customers.

Promise to provide freight and contracting insurance services: this performance obligation is satisfied when the freight and insurance services contracted to customers are completed.

As a result of the distinct performance obligations identified, part of the Company's revenues is presented as revenues from services. Cost related to revenues from services is presented as Cost of sales.

Revenues from the sale of goods and from freight and contracting insurance services are recognized at a point in time when control is transferred and when contracted services are provided. It is at this point that a trade receivable is recognized because only the passage of time is required before the consideration is due. The Company does not have any contract assets, which give right to consideration in exchange for goods or services that the Company has transferred to the customer, since all rights to consideration of the contracts are unconditional.

In 2024, revenues of USD 718,272 approximately 24% of the total gross revenues, (2023: USD 773,230 approximately 27%, and 2022: nil) are derived from two main customers. These revenues are attributed to both segments, mining and smelting.

Contractual obligations are an entity's obligation to transfer goods or services to a customer for which the entity has received consideration from the customer (or the payment is due) but the transfer has not yet been completed. For contracts where performance obligations are satisfied over a period of time, the stage of completion is required to calculate how much revenue should be recognized to date and revenue shall be deducted from the prepayment to the extent that performance obligations are delivered. Refer to note 29 for the specific accounting policy and information related to NEXA's contractual obligations.

Determining the transaction price and the amounts allocated to performance obligations

The Company considers the terms of the contract and its customary business practices to determine the transaction price. The transaction price is the amount of consideration that the Company expects to be entitled to receive in exchange for transferring promised goods or services to its customers. Transaction price is allocated to each performance obligation on a relative standalone selling price basis.

The transaction prices included in the Company's sales contracts are mainly based on international prices references and subject to price adjustments based on the market price at the end of the relevant quotation period stipulated in the sales contract. These are referred to as provisional pricing arrangements which are subject to a monthly price adjustment as per the London Metal Exchange (LME) quotational periods. As of December 31, 2024, the pending price adjustments to be made were not material.

Additionally, the Company has a contractual obligation related to a long-term silver streaming arrangement linked to specific production of its Cerro Lindo mine. The Company received an upfront payment in advance of this specific production. The transaction price is linked to the silver production

and spot market prices, which change over time and, therefore, it is accounted for as variable consideration. For more details about this streaming transaction see note 29.

(a) Composition

(i) Gross billing reconciliation

	2024	2023	2022
Gross billing	**3,018,937**	**2,839,597**	**3,440,863**
Billing from products	2,925,797	2,731,872	3,330,975
Billing from freight, contracting insurance services and others	93,140	107,725	109,888
Taxes on sales	(249,202)	(263,979)	(402,064)
Return of products sales	(3,254)	(2,385)	(4,809)
Net revenues	**2,766,481**	**2,573,233**	**3,033,990**

(ii) Net revenues breakdown

	2024	2023	2022
Zinc	1,687,043	1,682,711	2,093,105
Lead	364,613	321,803	276,438
Copper	359,935	263,376	290,519
Silver	80,167	61,594	57,921
Other products	181,583	136,024	206,119
Freight, insurance services and others	93,140	107,725	109,888
Net revenues	**2,766,481**	**2,573,233**	**3,033,990**
Taxes on sales	249,202	263,979	402,064
Return of products sales	3,254	2,385	4,809
Gross billing	**3,018,937**	**2,839,597**	**3,440,863**

(b) Information on geographical areas in which the Company operates

The geographical areas are determined based on the location of the Company's customers. The net revenues of the Company, classified by geographical location and currency, are as follows:

(i) Net revenues by geographical location

	2024	2023	2022
Peru	833,918	654,216	840,362
Brazil	601,041	559,786	846,571
Singapore	234,846	229,278	166,412
Switzerland	224,292	209,312	124,726
United States	166,904	168,965	174,526
Argentina	81,503	94,144	94,433
Chile	78,215	83,459	120,060
Luxembourg	71,285	78,474	95,252
United Kingdom	62,589	14,815	3,439
South Korea	60,423	39,985	32,406
Austria	42,758	47,919	48,676
Japan	39,712	32,054	71,370
South Africa	39,446	41,350	55,864
Colombia	31,209	36,066	64,013
Taiwan	30,455	26,901	65,036
Germany	23,222	16,274	3,764
Turkey	20,593	26,606	54,955
Vietnam	18,724	5,006	8,396
Ecuador	11,088	14,554	15,433
Belgium	9,011	19,824	17,905
China	7,570	65,910	-
Netherlands	5,457	16,045	13,623
Italy	4,153	9,479	9,586
Malaysia	3,361	18,738	26,033
Other	64,706	64,073	81,149
Net revenues	**2,766,481**	**2,573,233**	**3,033,990**

(ii) Net revenues by currency

	2024	2023	2022
USD	2,239,869	2,050,053	2,251,866
Brazilian Real ("BRL")	526,612	523,180	782,124
Net revenues	**2,766,481**	**2,573,233**	**3,033,990**

7 Expenses by nature

Accounting policy

Cost of sales mainly consists of the cost of manufacturing the products sold by the Company and is recognized in the income statement on the date of delivery to the customer at the same time revenue is recognized from the related sale.

Selling, general and administrative expenses are recognized on the accrual basis and, if applicable, in the same period in which the income they are related to is recognized.

				2024
	Cost of sales (i)	Selling, general and administrative	Mineral exploration and project evaluation	Total
Raw materials and consumables used	(1,187,542)	-	-	(1,187,542)
Third-party services	(481,942)	(43,170)	(49,197)	(574,309)
Depreciation and amortization	(322,135)	(7,375)	(688)	(330,198)
Employee benefit expenses	(209,526)	(60,124)	(9,630)	(279,280)
Others	(27,265)	(16,659)	(8,461)	(52,385)
	(2,228,410)	**(127,328)**	**(67,976)**	**(2,423,714)**

				2023
	Cost of sales (i)	Selling, general and administrative	Mineral exploration and project evaluation	Total
Raw materials and consumables used	(1,228,138)	-	-	(1,228,138)
Third-party services	(508,556)	(44,441)	(73,210)	(626,207)
Depreciation and amortization	(306,251)	(4,025)	(199)	(310,475)
Employee benefit expenses	(204,269)	(53,534)	(13,786)	(271,589)
Others	(27,143)	(24,599)	(12,417)	(64,159)
	(2,274,357)	**(126,599)**	**(99,612)**	**(2,500,568)**

				2022
	Cost of sales	Selling, general and administrative	Mineral exploration and project evaluation	Total
Raw materials and consumables used	(1,421,712)	-	-	(1,421,712)
Third-party services	(474,280)	(40,237)	(64,959)	(579,476)
Depreciation and amortization	(283,928)	(4,286)	(58)	(288,272)
Employee benefit expenses	(181,375)	(58,864)	(18,030)	(258,269)
Others	(32,641)	(41,783)	(15,754)	(90,178)
	(2,393,936)	**(145,170)**	**(98,801)**	**(2,637,907)**

(i) As of December 31, 2024, the Company recognized USD 3,661 in Cost of sales related to idle-capacity costs in El Porvenir due to the suspension of the mine for ten days (USD 12,455 as of December 31, 2023) and USD 34,591 including depreciation of USD 9,092 (USD 77,639 including depreciation of USD 22,024 as of December 31, 2023) related to the idleness of the Aripuanã mine and plant capacity incurred during the ramp-up phase. Idle capacity costs are calculated considering the significant reduction in the level of production due to unusual events.

8 Mineral exploration and project evaluation

Accounting policy

Mineral exploration and project evaluation costs are expensed in the year in which they are incurred.

Mineral exploration activities involve the search for mineral resources from potential areas up to the determination of commercial viability and technical feasibility of an identified resource. Mineral exploration costs include gathering exploration data through geological and geophysical studies, conducting exploration drilling and sampling, and determining and examining the volume and grade of the identified resources.

Project evaluation costs are mainly related to scoping, pre-feasibility and feasibility studies for greenfield and brownfield projects. Additionally, these evaluation costs could also include costs incurred for studies

related to other corporate projects, research, innovation, automation, and information technology projects.

Note 22 describes when mineral exploration and project evaluation costs begin to be capitalized.

Composition

	2024	2023	2022
Mineral exploration	(48,855)	(57,988)	(61,925)
Project evaluation	(19,121)	(41,624)	(36,876)
	(67,976)	**(99,612)**	**(98,801)**

9 Other income and expenses, net

	2024	2023	2022
ICMS tax incentives (i)	-	32,338	56,697
Changes in fair value of offtake agreement - note 16 (e)	(3,347)	2,268	24,267
Pre-operating expenses related to Aripuanã (ii)	-	-	(45,800)
Impairment of other assets (iii)	-	-	(9,302)
Changes in fair value of derivative financial instruments – note 16 (c)	746	(1,385)	1,363
(Loss) gain on sale and write-off of property, plant and equipment	(16,183)	(3,734)	(698)
Changes in asset retirement, restoration and environmental obligations – note 27	13,750	(10,125)	(1,512)
Slow moving and obsolete inventory	(10,897)	(4,372)	(11,511)
Provision for legal claims	1,908	(13,892)	(7,664)
Contribution to communities	(14,554)	(13,134)	(17,233)
Tax Voluntary disclosure (iv)	-	(86,906)	-
Changes in fair value of energy forward contracts – note 16 (d)	81	(15,663)	-
Divestment and restructuring (v)	9,028	-	-
Others	(14,043)	4,021	8,719
	(33,511)	**(110,584)**	**(2,674)**

(i) In December 2021, the Company adhered to a Brazilian Law which states that government grants of the “Imposto sobre circulação de mercadorias e serviços” (“ICMS”) tax incentives are considered investment subsidies and should be excluded from taxable income for the purpose of calculating the Corporate Income Tax (“IRPJ”) and the Social Contribution on Net Income tax (“CSLL”).

On December 29, 2023, a new law No. 14,789/2023 was published, revoking the treatment for purposes of IRPJ and CSLL of subsidies for investments by creating a new tax credit mechanism. The new rule also provides a limited concept of subsidy of investments only covering VAT benefits aimed to implement or expand an economic enterprise.

This new regulation came into effect in 2024, and the Company assessed that, for now, it should not continue to exclude the ICMS tax incentives from the IRPJ/CSLL basis.

(ii) In 2022, the main amounts were related to the idleness of the Aripuanã mine and plant relative to its nameplate capacity, which were recorded in this account until Aripuanã started to generate revenues in November 2022, when the idleness amounts started to be recorded as “*Cost of sales*”.

(iii) Amounts mainly related to the write-off of some non-commercial account receivables and taxes, which the Company does not expect to recover.

(iv) As previously reported throughout 2023, Nexa cooperated with the investigation carried out by the Fiscal Office of the State of Minas Gerais and the Public Ministry of Minas Gerais (the “MG Authorities”) of the practices of certain of Nexa’s former customers with respect to commercial transactions and related value-added tax (VAT), as well as Nexa’s relationship with such former customers.

This investigation concluded in the beginning of 2024. There still remain payments of 46 and 59 monthly installment to be adjusted by the SELIC (the Brazilian federal funds rate) interest rate. The Company has made 25 payments, and the SELIC interest rate varied between 0.97% and 0.93% during the year.

(v) Refers to divestments of the Peruvian subsidiaries, the Compañía Minera Cerro Colorado and the Minera Pampa de Cobre as well as, obligations related to restructuring expenses regarding the Morro Agudo sales agreement mentioned in note 1 (a).

10 Net financial results

Accounting policy

(i) Financial expenses
Financial costs of obligations are recognized as expenses when accrued, except for those directly attributable to the acquisition or the construction of qualifying assets, that is, assets that require a substantial amount of time to be ready for use, which are capitalized within property, plant and equipment and/or intangibles assets.

(ii) Financial income
Financial income is mainly composed of interest income and is recognized on an accrual basis to reflect the asset's effective yield under the effective interest rate method.

(iii) Other financial items, net is composed of the net of the income and expenses related to the fair value of loans and financings, derivative financial instruments, and foreign exchange gains or losses.

	2024	2023	2022
Financial income			
Interest income on financial investments and cash equivalents	11,853	11,622	16,913
Interest on tax credits	357	1,012	980
Monetary adjustments on assets	5,610	5,946	2,565
Other financial income	6,208	7,213	4,560
	24,028	**25,793**	**25,018**
Financial expenses			
Interest on loans and financings	(130,268)	(110,734)	(104,689)
Interest accrual on asset retirement and environmental obligations	(27,734)	(26,969)	(23,662)
Interest on lease liabilities - note 23 (b)	(13,517)	(6,134)	(1,626)
Interest on factoring operations and confirming payables	(16,391)	(16,624)	(4,791)
Interest on other liabilities	(15,014)	(9,215)	(11,472)
Bonds repurchase - note 24 (b)	(7,069)	-	(3,277)
Interest on contractual obligations	(6,424)	(5,329)	(5,801)
Interest on VAT matters – note 9 (iv)	(1,203)	(16,033)	-
Other financial expenses	(26,075)	(18,853)	(14,460)
	(243,695)	**(209,891)**	**(169,778)**
Other financial items, net			
Changes in fair value of loans and financings – note 24 (c)	(3,627)	(525)	(1,472)
Debt modification gain - note 24 (c)	3,142	-	-
Changes in fair value of derivative financial instruments – note 10 (c)	1,371	(606)	(83)
Net foreign exchange (loss) or gains (i)	(150,679)	18,171	11,504
	(149,793)	**17,040**	**9,949**
Net financial results	**(369,460)**	**(167,058)**	**(134,811)**

(i) The amounts for year 2024 and prior years are mainly due to exchange variation on the outstanding USD accounts receivables and accounts payables of Nexa BR with Nexa, intercompany loan of Nexa BR with its related parties, for which the exchange variation is not eliminated in the consolidation process, and loans in foreign currency. These transactions were impacted by the volatility of the Brazilian Real ("BRL"), which depreciated against the USD during 2024 (appreciated during 2023).

11 Current and deferred income tax

Accounting policy

The current income tax is calculated based on the tax laws enacted or substantively enacted as of the balance sheet date in the countries where the Company's entities operate and generate taxable income. Management periodically evaluates positions taken by the Company in the taxes on income returns with respect to situations in which the applicable tax regulations are subject to interpretation.

The Company establishes provisions or records a liability, where appropriate, and when the Company has a present obligation, considering amounts expected to be paid to the tax authorities.

The current income tax is presented net, separated by tax paying entity, in liabilities when there are amounts payable, or in assets when the amounts prepaid exceed the total amount due on the reporting date.

Deferred income tax is provided in full, using the balance sheet liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes at the reporting date. However, deferred tax liabilities are not recognized if they arise from the initial recognition of goodwill. Deferred income tax is determined using tax rates (and laws), of the Company's entities, that have been enacted or substantially enacted at the end of the reporting period and that are expected to be applied when the related deferred income tax asset is realized, or the deferred income tax liability is settled.

Deferred tax assets are recognized only to the extent it is probable that future taxable income will be available against which the temporary deductible differences and/or tax losses can be utilized. Deferred tax assets and liabilities are offset when there is a legally enforceable right and an intention to offset them in the calculation of current taxes, generally when they are related to the same legal entity and the same tax authority. Accordingly, deferred tax assets and liabilities in different entities or in different countries are generally presented separately, and not on a net basis.

Deferred tax liabilities and assets are not recognized for temporary differences between the carrying amounts and tax bases of investments in foreign operations where the Company is able to control the timing of the reversal of the temporary differences and it is probable that the differences will not be reversed in the foreseeable future.

Current and deferred tax is recognized in profit or loss, except to the extent that it relates to items recognized in other comprehensive income or directly in equity. In this case, the tax is also recognized in other comprehensive income or directly in equity, respectively.

There are discussions and ongoing disputes with tax authorities related to uncertain tax positions adopted by the Company in the calculation of its income tax, and for which management, supported by its legal counsel, has concluded that it is more-likely-than-not that its positions will be sustained upon examination. In such cases, tax amounts are not recognized.

The Company may have to pay income tax under discussion to continue the legal process either at the judicial or international arbitration levels, even though these taxes have not been provisioned considering the Company's risk assessment. Such payments may be made in several installments provided that a guarantee is placed before the courts. These amounts are recognized as outstanding under "*other assets*" as "*other tax claim payments*", for potential future recovery in cash or compensation of the future provisions if the Company loses the discussions or if the risk assessment is later revised leading the Company to conclude that it would no longer be more likely than not that its tax positions would be sustained upon examination.

Critical accounting estimates, assumptions and judgments

The Company is subject to income tax in all countries in which it operates where uncertainties arise in the application of complex tax regulations. Significant estimates, assumptions and judgments are required to determine the amount of deferred tax assets that would be recovered since this amount may be affected by factors including, but not limited to: (i) internal assumptions on the projected taxable income, which are based on production and sales planning, commodity prices, operational costs and planned capital costs; (ii) macroeconomic environment; and (iii) trade and tax scenarios.

In addition, there are many transactions and calculations for which the ultimate tax determination is uncertain. The Company also exercises judgment in the identification of these uncertainties over income tax treatments which could impact the consolidated financial statements as the Company operates in a complex multinational environment.

The Company and its subsidiaries are subject to reviews of income tax filings and other tax payments, and disputes can arise with the tax authorities over the interpretation of the applicable laws and regulations.

(a) Reconciliation of income tax (expense) benefit

	2024	2023	2022
(Loss) income before income tax	(71,851)	(296,084)	227,971
Luxembourg statutory income tax rate	24.94%	24.94%	24.94%
Expected income tax benefit (expense) at statutory rate	**17,920**	**73,843**	**(56,856)**
ICMS tax incentives permanent difference	-	10,995	19,277
Tax effects of translation of non-monetary assets/liabilities to functional currency	(1,323)	13,686	6,279
Withholding tax on dividends paid by subsidiaries	-	-	(5,263)
Impairment loss of goodwill	-	(12,585)	(18,247)
Special mining levy and special mining tax	(7,868)	(5,366)	(13,321)
Difference in tax rate of subsidiaries outside Luxembourg	12,591	24,665	(10,373)
Tax voluntary disclosure – VAT matters (i)	(2,403)	(29,548)	-
Unrecognized deferred tax on net operating losses (ii)	(25,515)	(52,091)	(66,069)
Adjustment to uncertain income tax (iii)	(94,764)	(5,194)	(3,866)
Other permanent tax differences	(14,194)	(14,131)	(2,544)
Income tax (expense) benefit	**(115,556)**	**4,274**	**(150,983)**
Current	(205,674)	(80,935)	(150,735)
Deferred	90,118	85,209	(248)
Income tax (expense) benefit	**(115,556)**	**4,274**	**(150,983)**

(i) VAT expense related to the tax voluntary disclosure (refer to note 9) is not deductible for income tax purposes and, consequently, Nexa did not recognize a deferred tax asset.

(ii) On December 31, 2024, the Company has not recognized a deferred tax asset over USD 93,385 (2023: USD 154,261) of net operating losses, based on the assessment made by the management that considers the future recoverability of this amount. As of December 31, 2024, the estimated accumulated amount of net operating losses without a deferred tax asset registered is of USD 1,174,837, of which USD 82 have an expiration limit of 5 years, USD 811,564 of 17 years, USD 13,958 of 20 years, and USD 349,232 can be carried forward indefinitely.

(iii) Primarily related to income tax provision of Cerro Lindo Stability Agreement for the years 2014 to 2021. For further details, please refer to note 11 (d).

(b) Analysis of deferred income tax assets and liabilities

	2024	2023
Tax credits on net operating losses	242,278	228,283
Tax credits on temporary differences		
Environmental liabilities	10,847	18,407
Asset retirement obligations	22,498	25,492
Inventory provisions	10,903	10,850
Tax, labor and civil provisions	7,886	9,588
Provision for employee benefits	5,196	7,319
Revaluation of derivative financial instruments	36	111
Others	10,773	16,938
Tax debits on temporary differences		
Depreciation, amortization and asset impairment	(70,985)	(29,612)
Added value of assets	(131,663)	(148,798)
Foreign exchange gains	14,222	(26,766)
Capitalized interest	(17,054)	(23,060)
Others	(585)	(20,085)
	104,352	**68,667**
Deferred income tax assets	236,887	235,073
Deferred income tax liabilities	(132,535)	(166,406)
	104,352	**68,667**

(c) Effects of deferred tax on income statement and other comprehensive income

	2024	2023	2022
Balance at the beginning of the year	**68,667**	**(24,886)**	**(37,277)**
Effect on loss for the year	90,118	85,209	(248)
Effect on other comprehensive income – Fair value adjustment	981	(1,269)	998
Effect on other comprehensive income – hedge accounting	535	198	(178)
Effect on other comprehensive income – Translation effect included in cumulative translation adjustment	(50,565)	9,415	8,481
Derecognition of Nexa's share of Enercan's deferred income taxes	-	-	3,338
Divestments – note 1 (a)	(3,348)	-	-
Others	(2,036)	-	-
Balance at the end of the year	**104,352**	**68,667**	**(24,886)**

(d) Summary of uncertain tax positions on income tax

As of December 31, 2024, the main uncertain tax positions are related to: (i) the interpretation of the application of the Cerro Lindo´s stability agreement; (ii) litigation of transfer pricing adjustments over transactions made with related parties; and (iii) the deductibility of certain costs and expenses.

The estimated amount of these contingent liabilities on December 31, 2024 is USD 430,567 which decreased compared to that estimated on December 31, 2023 of USD 478,329, mainly due to: (i) partial reduction of the amounts related to the 2014, 2015 and 2017 Cerro Lindo's stability agreement tax assessments, following SUNAT's recognition that part of these amounts assessed prescribed and are no longer due; (ii) changes in the risk assessment concluding that some positions are unlikely to be sustained, leading to the establishment of new provisions and a decrease in contingent liabilities; and (iii) partially offset by increases from other income tax assessment matters, based on reassessments by internal and external advisors.

SUNAT issued unfavorable decisions against the Company regarding Cerro Lindo´s stability agreement for the years from 2014 to 2017, arguing that the stabilized income tax rate granted under the stability agreement applies only to income generated from the production of 5,000 tons per day, rather than from the Company's entire production capacity, which expanded over time. The Company has filed strong appeals against these periods decisions. SUNAT is currently auditing 2019 and 2020 tax years, while audit remains open for the year 2021 (when the term of the stability agreement expired).

In the fourth quarter of 2024, SUNAT completed its audit of the 2018 tax period, recognizing that part of the income generated from production in such year was stabilized. In January 2025, Nexa's management opted to pay USD 18,300 to obtain a 60% reduction in fines and interests. However, the Company will continue its legal defense within the applicable deadlines and, therefore, these payments do not constitute an acknowledgment of liability for the tax debt.

(e) Pillar 2 – analysis on estimated effects

NEXA is within the scope of the OECD Pillar Two model rules which establish a new global minimum tax framework of 15% minimum tax. Pillar Two legislation was enacted in Luxembourg and in Brazil, already in effect for financial year beginning January 1, 2024, and January 1, 2025, respectively. However, no legislation regarding Pillar Two has been enacted in Peru yet.

The Company performed an assessment of the group's potential exposure to Pillar Two income taxes by running initial testing under the OECD transitional safe harbor rules based on the most recent information available of tax filings, country-by-country reporting and financial statements for the constituent entities in the group. Based on the assessment performed, the jurisdictions where the Company operates qualify for at least one of the transitional safe harbor rules and management is not currently aware of any circumstances under which this might change. Therefore, the Company does not expect a potential exposure to Pillar Two top-up tax.

(f) New transfer pricing rules in Brazil

As from January 1, 2024, Law 14.596/2023 became effective and introduced new transfer pricing rules (TP rules) in Brazil. These rules aim to align with the international standards established by the Organization for Economic Cooperation and Development (OECD), according to the arm's length

principle, which stipulates that the terms and conditions of a controlled transaction should be consistent with those that would be established between third parties in comparable transactions. The new rules are expected to affect only transactions involving Nexa BR, as transactions involving Nexa Peru and the Parent Company already comply with international standards established by the OECD.

The Company, with the support of its technical advisors, performed functional and economic analyses of its principal intercompany transactions, having identified and implemented the necessary adaptations during 2024. The Company continues to monitor the impacts of such new legislation and its recently enacted regulations and does not expect a relevant impact for the company and its subsidiaries.

12 Financial risk management

Accounting policies

The Company's activities expose it to a variety of financial risks: a) market risk (including currency risk, interest rate risk and commodities risk); b) credit risk; and c) liquidity risk.

A significant portion of the products sold by the Company are commodities, with prices pegged to international indices and denominated in USD. Part of the production costs, however, are denominated in BRL and Peruvian Soles ("PEN"), and therefore, there is a mismatch of currencies between revenues and costs. Additionally, the Company has debts linked to different indices and currencies, which may impact its cash flows.

To mitigate the potential adverse effects of each financial risk factor, the Company follows a Financial Risk Management Policy that establishes governance and guidelines for the financial risk management process, as well as metrics for measurement and monitoring. This policy establishes guidelines and rules for: (i) Commodities Exposure Management, (ii) Foreign Exchange Exposure Management, (iii) Interest Rate Exposure Management, (iv) Issuers and Counterparties Risk Management, and (v) Liquidity and Financial Indebtedness Management. All strategies and proposals must comply with the Financial Risk Management Policy guidelines and rules, be presented to and discussed with the Finance Committee of the Board of Directors, and, when applicable, submitted for the approval of the Board of Directors, under the governance structure described in such Policy.

(a) Market risk

The purpose of the market risk management process and all related actions is intended to protect the Company's cash flows against adverse events, such as changes in foreign exchange rates, interest rates and commodity prices, to maintain the ability to pay financial obligations, and to comply with liquidity and indebtedness levels defined by management.

(i) Sensitivity analysis

Presented below is a sensitivity analysis of the main risk factors that affect the pricing of the outstanding financial instruments related to cash and cash equivalents, financial investments, loans and financings, and other financial instruments. The main sensitivities are the exposure to changes in the USD exchange rate, the Interbank Deposit Certificate ("CDI") interest rates, the National Broad Consumer Price Index ("IPCA") and the commodity prices. The scenarios for these factors are prepared using market sources and other relevant sources, in compliance with the Company's policies. The scenarios on December 31, 2024, are described below:

- Scenario I: considers a change in the market forward yield curves and quotations as of December 31, 2024, according to the base scenario defined by the Company for March 31, 2025.
- Scenario II: considers a change of + or -25% in the market forward yield curves as of December 31, 2024.
- Scenario III considers a change of + or -50% in the market forward yield curves as of December 31, 2024.

			Impacts on income statement						Impacts on statement of comprehensive income				
					Scenarios II and III					Scenarios II and III			
Risk factor	**Quotation at December 31, 2024**	**Amount**	**Changes from 2024**	**Scenario I**	**-25%**	**-50%**	**+25%**	**+50%**	**Scenario I**	**-25%**	**-50%**	**+25%**	**+50%**
Cash and cash equivalents and financial investments													
Foreign exchange rates													
BRL	6.1923	58,279	4.15%	-	-	-	-	-	2,453	(14,773)	(29,545)	14,773	29,545
EUR	1.0394	3,126	1.98%	62	(781)	(1,563)	781	1,563	-	-	-	-	-
PEN	3.7611	34,444	(2.31%)	(795)	(8,611)	(17,221)	8,611	17,221	-	-	-	-	-
CAD	1.4390	694	1.70%	-	-	-	-	-	12	(174)	(347)	174	347
NAD	18.8730	1,593	(7.93%)	-	-	-	-	-	(126)	(398)	(797)	398	797
Interest rates													
BRL - CDI - SELIC	12.15%	57,969	151 bps	872	(1,761)	(3,552)	1,761	3,552	-	-	-	-	-
Loans and financings													
Foreign exchange rates													
BRL	6.1923	299,844	4.15%	-	-	-	-	-	(12,449)	74,961	149,922	(74,961)	(149,922)
Interest rates													
BRL - CDI - SELIC	12.15%	121,318	151 bps	(1,826)	3,685	7,370	(3,685)	(7,370)	-	-	-	-	-
USD - SOFR	4.30%	236,978	(13) bps	304	2,545	5,090	(2,545)	(5,090)	-	-	-	-	-
IPCA - TLP	4.83%	159,509	17 bps	(271)	1,926	3,852	(1,926)	(3,852)	-	-	-	-	-
TJLP	7.97%	19,018	54 bps	(103)	379	758	(379)	(758)	-	-	-	-	-
Other financial instruments													
Foreign exchange rates													
BRL	6.1923	(168)	4.15%	(7)	42	84	(42)	(84)	-	-	-	-	-
Interest rates													
BRL - CDI - SELIC	12.15%	(168)	151 bps	(194)	456	972	(405)	(767)	-	-	-	-	-
USD - SOFR	4.30%	1,651	(13) bps	-	49	98	(49)	(98)	(1)	(81)	(163)	81	162
Commodities price													
Zinc	2,974	1,651	(4.17%)	10,942	13,037	26,074	(13,037)	(26,074)	(8,013)	(9,547)	(19,094)	9,547	19,094

(ii) Foreign exchange risk

Foreign exchange risk is managed through the Company's Financial Risk Management Policy, which states that the objectives of derivative transactions are to reduce cash flow volatility, hedge against foreign exchange exposure and minimize currency mismatches.

The Company's Financial Risk Management Policy establishes guidelines and rules to manage the Foreign Exchange Risk, to consist in finance projects / companies in the same currency of its future cash flows (i.e. a project/company that will generate cash flows indexed to USD must be primarily financed with borrowings denominated in the same currency). This strategy aims to reduce the impact of currency fluctuations in the cash flow of the project/company, since revenues and expenses are denominated in the same currency. Presented below are the financial assets and liabilities in foreign currencies on December 31, 2024. These mainly result from NEXA BR's operations, for which the functional currency is the BRL. Intercompany loans balances are fully eliminated in the consolidated financial statements. However, the related foreign exchange gain or loss is not, and is presented as foreign exchange effects.

USD amounts of foreign currency balances	2024	2023
Assets		
Cash, cash equivalents and financial investments	98,067	105,802
Other Financial Instruments	70	29
Trade accounts receivables	19,553	19,885
	117,690	**125,716**
Liabilities		
Loans and financings	297,199	279,341
Other Financial Instruments	238	479
Trade payables	190,806	227,687
Lease liabilities	42,357	52,896
Use of public assets	18,047	22,733
	548,647	**583,136**
Net exposure	**(430,957)**	**(457,420)**

(iii) Interest rate risk

The Company's interest rate risk primarily arises from its long-term loans. Variable-rate loans expose the Company to cash flow interest rate risk, as changes in market rates directly impact future interest payments. Conversely, fixed-rate instruments may expose the Company to fair value risk, as fluctuations in market interest rates affect the fair value of the hedged instruments. For further details on interest rates, refer to note 24.

The Company's Financial Risk Management Policy establishes guidelines and rules to hedge against changes in interest rates that impact on the Company's cash flow. Exposure to each interest rate is projected until the maturity of the assets and liabilities are exposed to this index. Occasionally the Company enters floating to fixed interest rate swaps to manage its cash flow interest rate risk. In the case of loans and financings contracted together with swaps, the Company accounts for them under the fair value option to eliminate the accounting mismatch that would arise if amortized cost were used. Occasionally the Company enters floating to fixed interest rate swaps to manage its cash flow interest rate risk.

In the case of loans and financing contracts along with swaps, the Company may account for them under the fair value option to eliminate the accounting mismatch that would arise if amortized costs were used.

(iv) Commodity price risk

The commodity price risk is related to the volatility in the prices of the Company's commodities. Prices fluctuate depending on demand, production capacity, inventory levels, commercial strategies adopted by large producers, and the availability of substitutes for these products in the global market.

The Company's Financial Risk Management Policy establishes guidelines to mitigate the risk of fluctuations in commodity prices that could impact the Company's cash flows. The exposure to the price of each commodity considers the monthly production projections, inputs purchases, and the maturity flows of hedges associated with them.

Commodity prices hedge transactions are classified into the following hedging strategies:

Hedges for sales of zinc at a fixed price (Customer Hedge)

The objective is to convert fixed priced sales to floating prices, observed on the London Metal Exchange (LME). The purpose of the strategy is to maintain the revenues of a business unit linked to the LME prices. These transactions usually relate to purchases of zinc for future settlement on the over-the-counter market.

Hedges for mismatches of quotational periods (Hedge Book)

The objective is to hedge quotational periods mismatches arising between the purchases of metal concentrate or processed metal and the sale of the processed metal. These transactions usually relate to purchases and sales of zinc for future trading on the over-the-counter market.

(b) Credit risk

Trade receivables, derivative financial instruments, term deposits, bank deposit certificates ("CDBs") and government securities create exposure to credit risk with respect to the counterparties and issuers. The Company has a policy of making deposits in financial institutions that have, at least, a rating from two of the following international rating agencies: Fitch, Moody's or Standard & Poor's. The minimum rating required for counterparties is determined as follows:

- Onshore operations: rating "A", or equivalent, on a local scale by two rating agencies. In the case of foreign financial institutions that have a local rating by only one rating agency, it should be at least "AA-", and/or its headquarters shall have a rating "A" minimum on a global scale.

- Offshore operations: rating "BBB-", or equivalent, on a global scale by two rating agencies.

In the specific case of financial institutions in Peru or in Luxembourg, local ratings from local agency associated to the rating agencies approved in the Company's policy are accepted. In case that only a global rating assessment are available, it will be eligible provided it has a rating "BBB-" at least by one rating agency.

In the case of financial institutions that do not have a rating available for a specific country, it will be eligible provided its headquarters follow the minimum ratings specified above.

The pre-settlement risk methodology is used to assess counterparty risks in derivative transactions.

This methodology consists of determining the risk associated with the likelihood (via Monte Carlo simulations) of a counterparty defaulting on the financial commitments defined by contract.

The global ratings were obtained from the rating agencies Fitch, Moody's or Standard & Poor's ratings and are related to commitments in foreign or local currency, and, in both cases, they assess the capacity to honor these commitments, using a scale applicable on a global basis. Therefore, both ratings in foreign currency and in local currency are internationally comparable ratings.

The ratings used by the Company are always the most conservative ratings of the referred agencies.

In the case of credit risk arising from customer credit exposure, the Company assesses the credit quality of the customer, considering mainly the history of the relationship and financial indicators defining individual credit limits, which are continuously monitored.

The Company performs initial analyses of customer credit and, when deemed necessary, guarantees or letters of credit are obtained to mitigate the credit risk. Additionally, most sales to the United States of America, Europe and Asia are collateralized by letters of credit and credit insurance.

The carrying amount of the Company's financial instruments best represents the maximum exposure to their credit risk.

The following table reflects the credit quality of issuers and counterparties for transactions involving cash and cash equivalents, financial investments and derivative financial instruments. The variations presented are mainly related to the Company's transactions in the year and not to changes in the counterparties' ratings.

			2024			**2023**
	Local rating	**Global rating**	**Total**	**Local rating**	**Global rating**	**Total**
Cash and cash equivalents						
AAA	251,962	-	251,962	189,582	-	189,582
AA+	1	-	1	-	-	-
AA	-	95,461	95,461	1	-	1
AA-	-	18,714	18,714	-	46,317	46,317
A+	-	127,151	127,151	-	72,315	72,315
A	8,265	24,749	33,014	-	66,342	66,342
A-	-	61,935	61,935	-	70,155	70,155
BB+	-	-	-	-	1	1
No rating (i)	11,899	20,400	32,299	76	12,470	12,546
	272,127	**348,410**	**620,537**	**189,659**	**267,600**	**457,259**
Financial investments						
AAA	19,638	-	19,638	10,994	-	10,994
No rating (i)	55	-	55	64	-	64
	19,693	**-**	**19,693**	**11,058**	**-**	**11,058**
Derivative financial instruments						
AAA	71	-	71	29	-	29
A+	-	450	450	-	978	978
A	-	842	842	-	53	53
A-	-	3,919	3,919	-	6,667	6,667
BBB+	-	-	-	-	166	166
	71	**5,211**	**5,282**	**29**	**7,864**	**7,893**
Other assets						
AAA	883	-	883	-	-	-
	883	**-**	**883**	**-**	**-**	**-**

(i) Refers to subsidiaries of international financial institutions that do not have a global rating available in the international rating agencies. According to the Company's policy, for these financial institutions, the rating of the financial institution controlling entities is assumed, which must be at least BBB-.

(c) Liquidity risk

Liquidity risk is managed through the Company's Financial Risk Management Policy, which aims to ensure the availability of funds to meet the Company's financial obligations. The main liquidity measurement and monitoring instrument is the cash flow projection, using a minimum projection period of 12 months from the benchmark date. Financial institutions that provide the Company with financial services are within Nexa's rating policies and in the same level of the ones provided for the Company's credit risk.

A substantial part of the confirming payables arrangement is with one financial institution. However, there are other financial institutions that the Company has relations with that could be considered for future supplier financing transactions. If this service is not available, the entity may be required to increase its debt levels which may negatively impact its leverage ratios.

The table below shows the Company's financial obligations to be settled by the Company based on their maturity (the remaining period from the balance sheet up to the contractual maturity date). The amounts below represent the estimated undiscounted future cash flows, which include interests to be incurred and, accordingly, do not reconcile directly with the amounts presented in the consolidated balance sheet.

2024	Less than 1 year	Between 1 and 3 years	Between 3 and 5 years	Over 5 years	Total
Loans and financings	148,077	150,023	1,175,144	1,028,440	2,501,684
Lease liabilities	29,882	37,755	6,121	12,299	86,057
Derivative financial instruments	3,600	181	17	-	3,798
Trade payables	443,288	-	-	-	443,288
Confirming payables	268,175	-	-	-	268,175
Salaries and payroll charges	70,235	-	-	-	70,235
Dividends payable	3,707	-	-	-	3,707
Related parties	1,125	3,079	-	-	4,204
Asset retirement and environmental obligations	47,937	76,583	60,598	364,036	549,154
Use of public assets	1,457	3,180	3,585	28,226	36,448
	1,017,482	**270,801**	**1,245,465**	**1,433,001**	**3,966,749**

2023	Less than 1 year	Between 1 and 3 years	Between 3 and 5 years	Over 5 years	Total
Loans and financings	232,941	181,147	1,591,705	173,436	2,179,229
Lease liabilities	29,227	49,480	16,845	14,306	109,858
Derivative financial instruments	10,343	108	42	-	10,493
Trade payables	451,603	-	-	-	451,603
Confirming payables	234,385	-	-	-	234,385
Salaries and payroll charges	68,165	-	-	-	68,165
Dividends payable	2,830	-	-	-	2,830
Related parties	1,062	2,873	-	-	3,935
Asset retirement and environmental obligations	33,591	85,675	95,302	358,333	572,901
Use of public assets	1,902	3,240	3,921	17,570	26,633
	1,066,049	**322,523**	**1,707,815**	**563,645**	**3,660,032**

(d) Capital management

The Company's objectives when managing capital are to safeguard its ability to continue as a going concern, so it can continue to provide returns for shareholders and benefits for other stakeholders, and to maintain an optimal capital structure to reduce the cost of capital.

To maintain or adjust the capital structure, the Company may adjust the dividends level paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt. The Company monitors capital mainly using the leverage ratio, calculated as net debt to Adjusted EBITDA.

Net debt and Adjusted EBITDA measures should not be considered in isolation or as a substitute for net income or operating income, as indicators of operating performance, or as alternatives to cash flow as measures of liquidity. Additionally, management's calculation of Adjusted EBITDA may be different from the calculation used by other companies, including competitors in the mining and smelting industry, so these measures may not be comparable to those of other companies.

	Note	2024	2023	2022
Loans and financings	24 (a)	1,762,633	1,725,566	1,669,259
Derivative financial instruments	16 (a)	(1,484)	2,600	2,575
Lease liabilities	23 (b)	95,899	77,405	27,205
Cash and cash equivalents	15	(620,537)	(457,259)	(497,826)
Financial investments		(19,693)	(11,058)	(18,062)
Net debt (i)		**1,216,818**	**1,337,254**	**1,183,151**
Net (loss) income for the year		(187,407)	(291,810)	76,988
Plus (less):				
Depreciation and amortization	7	330,198	310,475	292,140
Share in the results of associates		(21,223)	(23,536)	(1,885)
Net financial results	10	369,460	167,058	134,811
Income tax expense (benefit)	11 (a)	115,556	(4,274)	150,983
Miscellaneous adjustments	2	107,496	248,128	110,168
Adjusted EBITDA (ii)		**714,080**	**406,041**	**763,205**
Leverage ratio (Net debt/Adjusted EBITDA)		**1.70**	**3.29**	**1.55**

(i) Net debt is defined as (a) loans and financings, plus lease liabilities, plus or minus (b) the fair value of derivative financial instruments, less (c) cash and cash equivalents, less (d) financial investments.

(ii) Adjusted EBITDA for capital management calculation uses the same assumptions described in note 2 for Adjusted EBITDA by segment.

13 Financial instruments

Accounting policy

Normal purchases and sales of financial assets are recognized on the trade date – the date on which the Company commits to purchase or sell the asset. Financial assets are initially recognized at fair value plus transaction costs for all financial assets not carried at fair value through profit or loss. Financial assets carried at fair value through profit or loss, if any, are initially recognized at fair value, and transaction costs are expensed in the income statement.

Financial assets are derecognized when the rights to receive cash flows from the investments have expired or the Company has transferred substantially all the risks and rewards of ownership. Financial assets at fair value through profit or loss and at fair value through other comprehensive income are subsequently carried at fair value. Financial assets at amortized costs are subsequently measured using the effective interest rate method.

Equity instruments may be irrevocably elected on their initial recognition for their fair value changes to be presented in other comprehensive income instead of in the income statement. Since the objective of the Company's equity instruments is to buy more participation in a project and not sell the investment, they have been classified as fair value through other comprehensive income.

Then, the Company classifies its financial assets and liabilities under the following categories: amortized cost, fair value through profit or loss and fair value through other comprehensive income.

(i) Amortized cost

Financial assets measured at amortized cost are assets held within a business model whose objective is to hold financial assets to collect contractual cash flows and for which the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest ("SPPI") on the principal amount outstanding.

Financial liabilities are measured at amortized cost, except for financial liabilities at fair value through profit or loss such as derivatives and some specific loans and financings.

(ii) Fair value through profit or loss

Financial assets measured at fair value through profit or loss are assets which an entity manages with the objective of realizing cash flows through the sale of such assets and financial assets that do not give rise to cash flows that are SPPI on the principal amount outstanding.

Financial liabilities measured at fair value through profit or loss are liabilities which are not measured at amortized cost, such as derivatives and loans and financings where the fair value option is adopted to eliminate an accounting mismatch that would arise if amortized cost were used. For these loans and financings, the fair value variation related to the Company's own credit risk is recorded in the OCI.

(iii) Fair value through other comprehensive income

Financial assets measured at fair value through other comprehensive income are held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets and for which the contractual terms of the financial asset give rise on specified dates to cash flows that are SPPI on the principal amount outstanding. Investments in equity instruments are measured at fair value through other comprehensive income as mentioned before.

(a) Breakdown by category

The Company's financial assets and liabilities are classified as follows:

	Note	Amortized cost	Fair value through profit or loss	Fair value through Other comprehensive income	2024 Total
Assets per balance sheet					
Cash and cash equivalents	15	620,537	-	-	620,537
Financial investments		19,693	-	-	19,693
Other financial instruments	16 (a)	-	5,282	-	5,282
Trade accounts receivables (iii)	17	39,008	101,785	-	140,793
Investments in equity instruments	14 (c)	-	-	5,093	5,093
Related parties (i)	20 (a)	2	-	-	2
		679,240	**107,067**	**5,093**	**791,400**
Liabilities per balance sheet					
Loans and financings	24 (a)	1,670,313	92,320	-	1,762,633
Lease liabilities	23 (b)	95,899	-	-	95,899
Other financial instruments	16 (a)	-	37,134	-	37,134
Trade payables	25	443,288	-	-	443,288
Confirming payables	26	268,175	-	-	268,175
Use of public assets (ii)		18,047	-	-	18,047
Related parties (ii)	20 (a)	4,204	-	-	4,204
		2,499,926	**129,454**	**-**	**2,629,380**

	Note	Amortized cost	Fair value through profit or loss	Fair value through Other comprehensive income	2023 Total
Assets per balance sheet					
Cash and cash equivalents	15	457,259	-	-	457,259
Financial investments		11,058	-	-	11,058
Other financial instruments	16 (a)	-	7,893	-	7,893
Trade accounts receivables	17	53,328	88,582	-	141,910
Investments in equity instruments	14 (c)	-	-	5,649	5,649
Related parties (i)	20 (a)	3	-	-	3
		521,648	**96,475**	**5,649**	**623,772**
Liabilities per balance sheet					
Loans and financings	24 (a)	1,634,163	91,403	-	1,725,566
Lease liabilities	23 (b)	77,405	-	-	77,405
Other financial instruments	16 (a)	-	46,122	-	46,122
Trade payables	25	451,603	-	-	451,603
Confirming payables	26	234,385	-	-	234,385
Use of public assets (ii)		22,733	-	-	22,733
Related parties (ii)	20 (a)	3,935	-	-	3,935
		2,424,224	**137,525**	**-**	**2,561,749**

(i) Classified as "Other assets" in the consolidated balance sheet.
(ii) Classified as "Other liabilities" in the consolidated balance sheet.

(iii) Fair value through profit or loss amounts, relates mainly to amounts included in a forfaiting program and sales that are subsequently adjusted to changes in LME prices.

14 Fair value estimates

Critical accounting estimates, assumptions and judgments

The fair value of financial instruments that are not traded in an active market is determined using valuation techniques. The Company uses judgment to select among a variety of methods and makes estimates and assumptions that are mainly based on market conditions existing at the end of each reporting period.

Although management has used its best judgment in estimating the fair value of its financial instruments, any technique for making said estimates and assumptions involves some level of inherent fragility.

(a) Analysis

The main financial instruments and the estimates and assumptions made by the Company for their valuation are described below:

- Cash and cash equivalents, financial investments, trade accounts receivables and other current assets – considering their nature, terms and maturity, the carrying amounts approximate their fair value.
- Financial liabilities – these instruments are subject to usual market interest rates. The fair value is based on the present value of expected future cash disbursements, at interest rates currently available for debt with similar maturities and terms and adjusted for the Company's credit risk. Loans and financings are measured at amortized cost, except for certain contracts for which the Company has chosen the fair value option.
- Energy forward contracts - part of the fair value of these financial instruments, are estimated based on the published price quotations in the active markets, as far as the data is existent and accessible in the market. The other part is estimated based on the use of valuation techniques that consider: (i) prices established in purchase and sale operations; (ii) supply risk margin; and (iii) projected market price in the period of availability.
- Other financial instruments – the fair value is determined by calculating their present value through yield curves at the closing dates. The curves and prices used in the calculation for each group of instruments are developed based on data from Brazilian Securities, Commodities and Futures Exchange – B3, Central Bank of Brazil, LME and Bloomberg, interpolated between the available maturities. The main derivative financial instruments are:

  - Swap contracts – the present value of both the assets and liabilities are calculated through the discount of forecasted cash flows by the interest rate of the currency in which the swap is denominated. The difference between the present value of the assets and the liabilities generates its fair value.
  - Forward contracts – the present value is estimated by discounting the notional amount multiplied by the difference between the future price at the reference date and the contracted price. The future price is calculated using the convenience yield of the underlying asset. It is common to use Asian non-deliverable forwards for hedging non-ferrous metals positions. Asian contracts are derivatives in which the underlying is the average price of certain asset over a range of days.
  - Option contracts – the present value is estimated based on the Black and Scholes model, with assumptions that include the underlying asset price, strike price, volatility, time to maturity and interest rate.

(b) Fair value by hierarchy

				2024
	Note	**Level 1**	**Level 2**	**Total**
Assets				
Other financial instruments	16 (a)	-	5,282	5,282
Trade accounts receivables		-	101,785	101,785
Investments in equity instruments (i)	14 (c)	5,093	-	5,093
		5,093	**107,067**	**112,160**
Liabilities				
Other financial instruments	16 (a)	-	37,134	37,134
Loans and financings designated at fair value (ii)		-	92,320	92,320
		-	**129,454**	**129,454**

				2023
	Note	**Level 1**	**Level 2**	**Total**
Assets				
Other financial instruments	16 (a)	-	7,893	7,893
Trade accounts receivables		-	88,582	88,582
Investment in equity instruments (i)	14 (c)	5,649	-	5,649
		5,649	**96,475**	**102,124**
Liabilities				
Other financial instruments	16 (a)	-	46,122	46,122
Loans and financings designated at fair value (ii)		-	91,403	91,403
		-	**137,525**	**137,525**

(i) To determine the fair value of the investments in equity instruments, the Company uses the share's quotation as of the last day of the reporting period.
(ii) Loans and financings are measured at amortized cost, except for certain contracts for which the Company has elected the fair value option.

The Company discloses fair value measurements based on their level on the following fair value measurement hierarchy and there were no transfers between levels 1, 2 or 3 for recurring fair value measurements during the year:

Level 1:

When fair value is calculated with quoted prices (unadjusted) in active markets for identical assets and liabilities traded in active markets at the balance sheet date. A market is regarded as active if quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service, or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis. The quoted market price used for financial assets held by the Company is the current bid price.

Level 2:

When fair value is calculated with valuation techniques since the financial instruments are not traded in an active market and all the significant inputs required to identify the fair value of an instrument are observable. Specific valuation techniques used to value financial instruments include:

- Quoted market prices or dealer quotes for similar instruments are used where available;
- The fair values of interest rate swaps are calculated at the present value of the estimated future cash flow based on observable yield curves; and
- The fair value of forward foreign exchange contracts is determined using forward exchange rates at the balance sheet date, with the resulting value discounted to present value.

Other techniques, such as discounted cash flows analysis, are used to determine the fair value of the remaining financial instruments.

Level 3:

When fair value is calculated with inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs). As of December 31, 2024, there were no financial assets and liabilities carried at fair value classified as Level 3.

(c) Investments in equity instruments – Increase of equity interest in Tinka Resources

In 2021, the Company acquired 9.0% of the issued and outstanding common shares of Tinka Resources Limited ("Tinka"), an exploration and development company which holds 100% of the Ayawilca zinc-silver project in Peru. On May 31, 2022, the Company subscribed to an additional 40,792 thousand common shares in a private transaction at a price of approximately USD 0.17 (CAD 0.22) per share for a total consideration of USD 7,000 (CAD 8,974 thousand) and on December 17, 2024, the Company subscribed to an additional 9,859 thousand common shares in a private transaction at a price of approximately USD 0.07 (CAD 0.10) per share for a total consideration of USD 700 (CAD 986 thousand). Upon the closing of the Private purchase transactions, Nexa holds 19.86% (2023 -18.23%) or 81,202 thousand (2023- 71,343 thousand) of the issued and outstanding common shares of Tinka and 4,930 warrants entitling Nexa to acquire 4,930 thousand additional common shares of Tinka, representing 56.68% of the outstanding warrants Tinka issued of approximately total of 8,697 thousand warrants.

Similar to the original acquisitions made in 2022, this transaction has been accounted for as an investment in equity instruments at its acquisition cost and all are being subsequently measured at fair value through other comprehensive income.

15 Cash and cash equivalents

Accounting policy

Cash and cash equivalents include cash, bank deposits, and highly liquid short-term investments (investments with an original maturity less than 90 days), which are readily convertible into a known amount of cash and subject to an immaterial risk of changes in value. Bank overdrafts are shown within Loans and financings in current liabilities in the balance sheet.

(a) Composition

	2024	2023
Cash and banks	424,258	352,814
Term deposits	196,279	104,445
	620,537	**457,259**

16 Other financial instruments

Accounting policy

Derivatives are initially recognized at fair value as at the date on which a derivative contract is entered into and are subsequently measured at fair value. Derivatives are only used for risk mitigation purposes and not as speculative investments. When derivatives do not meet the hedge accounting criteria, they are classified as held for trading and accounted for at fair value through profit or loss.

For derivatives that meet the hedge accounting criteria, the Company documents at the inception of the hedging transaction the relationship between hedging instruments and hedged items, as well as its risk management objectives and strategy for undertaking the hedge transactions. The Company also documents its assessment, both at hedge inception and on an ongoing basis, whether the derivatives that are used in hedging transactions and accounted for as hedge accounting were, and will continue to be, highly effective in offsetting changes in the fair value or cash flow of hedged items.

(i) Derivative financial instruments designated as cash flow hedge

Derivatives that are designated for hedge accounting recognition are qualified as cash flow hedges when they are related to a highly probable forecasted transaction. The effective portion of the changes in fair value is recognized in shareholders' equity in Accumulated other comprehensive income and is subsequently reclassified to the income statement in the same period when the hedged expected cash flows affect the income statement.

The reclassification adjustment is recognized in the same income statement line item affected by the highly probable forecasted transaction, while gains or losses related to the non-effective portion are immediately recognized as "*Other income and expenses, net*".

When a hedging instrument expires, is sold or no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in shareholders' equity at that time remains in shareholders' equity and is recognized when the forecast transaction is ultimately recognized in the income statement. When a forecasted transaction is no longer expected to occur, the cumulative gain or loss that was previously accounted in shareholders' equity is immediately transferred to the income statement within "*Other income and expenses, net*".

Currently, the Company classifies as cash flow hedge only some strategies related to mismatches of quotational periods.

(ii) Derivative financial instruments designated as fair value hedge

Derivatives that are designated for hedge accounting recognition are qualified as fair value hedges when they are related to assets or liabilities already recognized in the consolidated balance sheet.

Changes in the fair values of derivatives that are designated and qualify as fair value hedges and changes in the fair value of the hedged item are recorded in the income statement in the same period.

Currently, the Company does not have any derivatives designated as fair value hedge.

(iii) Derivatives financial instruments not designated as hedge accounting

Changes in the fair value of derivative financial instruments not designated as hedge accounting are recognized in the income statement in the line affected by the related transaction.

(iv) Energy forward contracts

The Company through its energy subsidiaries is an energy self-producer and authorized to sell energy both in the free and regulated markets as Energy Traders. A portion of these transactions involve contracts for delivery of energy for internal use to meet production demands and are not therefore classified as financial instruments.

Another portion of these transactions consists of sales of energy not used in production process. These transactions take place in an active market and meet the definition of financial instruments, because they are settled in energy and readily convertible into cash. Such contracts are recorded as derivatives and are recognized in the Company's balance sheet at fair value on the date the derivative is entered and subsequently revalued at their fair values at the reporting date. The fair value recognition and realization of these financial instruments are recorded under "Other income and expenses, net".

The fair values of these derivatives are estimated partly based on price quotes in active markets, as long as such market data exists, and partly through the use of valuation techniques, which consider: (i) prices established in the purchase and sale operations; (ii) the risk margin on the supply; and (iii) the projected market price during the period of availability. Whenever the fair value upon initial recognition for these contracts differs from the transaction price, a loss or gain on the fair value is recognized in the profit or loss for the year. The transactions carried out by the company Pollarix S.A. in the Free Contracting Environment ("ACL") resulted in a gain from the sale of surplus energy, which was recognized at its fair value on the transaction date.

(v) Offtake agreement

On January 25, 2022, the Company signed an offtake agreement with an international offtaker (the "Offtaker") a subsidiary of a BBB rated company, in which it agreed to sell 100% of the copper concentrate to be produced by Aripuanã for a 5-year period up to a total of 30,810 tons, at the lower of current spot market prices or a price cap. in July 2023, the contract was amended, including provisions for additional deliveries and time extension until Nexa fulfills the delivery of the originally agreed-upon volumes. The transaction price is the lower of current market prices or a price cap, from the most updated schedule of copper concentrates deliveries. The Company began deliveries of copper concentrates in June 2023.

The offtake agreement resulted from negotiations with the Offtaker to sell the copper concentrate in lieu of paying future royalties related to the previous acquisition of the Aripuanã project mining rights from the Offtaker. The amount of USD 46,100, representing the fair value of the agreement at its inception date, was recognized as an intangible asset and is being amortized over the life of the mine according to the Units of Production ("UoP") method.

Additionally, the Company opted to voluntarily and irrevocably designate the entire offtake agreement at fair value through profit and loss within the scope of IFRS 9, rather than separate the value of the embedded derivative associated with the price cap, recognizing a non-cash accumulated loss of USD 3,347 as of December 31, 2024 (gain as of December 31, 2023: USD 2,268), as disclosed in Note 9.

(a) Composition

	Derivatives financial instruments	Offtake agreement measured at FVTPL	Energy forward contracts at FVTPL (i)	2024
Current assets	5,279	-	-	5,279
Non-current assets	3	-	-	3
Current liabilities	(3,600)	(2,352)	(2,571)	(8,523)
Non-current liabilities	(198)	(17,314)	(11,099)	(28,611)
Other financial instruments, net	**1,484**	**(19,666)**	**(13,670)**	**(31,852)**

	Derivatives financial instruments	Offtake agreement measured at FVTPL	Energy forward contracts at FVTPL	2023
Current assets	7,801	-	-	7,801
Non-current assets	92	-	-	92
Current liabilities	(10,343)	(2,091)	(6,643)	(19,077)
Non-current liabilities	(150)	(17,474)	(9,421)	(27,045)
Other financial instruments, net	**(2,600)**	**(19,565)**	**(16,064)**	**(38,229)**

(i) On December 31, 2024, due to the current scenario of high energy supply in Brazil, the Company has a projected energy surplus on forward contracts with some suppliers. Consequently, the Company recognized the fair value arising from the mark-to-market of current purchase until 2026, which resulted in an income in the amount of USD 81. This amount was accounted for as an income within “Other income and expenses, net” (Note 9) and will vary according to the market’s energy prices.

(b) Derivative financial instruments: Fair value by strategy

			2024		2023
Strategy	**Per Unit**	**Notional**	**Fair value**	**Notional**	**Fair value**
Mismatches of quotational periods					
Zinc forward	ton	232,717	1,449	209,951	(3,175)
			1,449		**(3,175)**
Sales of zinc at a fixed price					
Zinc forward	ton	2,584	203	7,233	1,026
			203		**1,026**
Interest rate risk					
IPCA vs. CDI	BRL	100,000	(168)	100,000	(451)
			(168)		**(451)**
			1,484		**(2,600)**

(c) Derivative financial instruments: Changes in fair value – At the end of each year

Strategy	Cost of sales	Net revenues	Other income and expenses, net – Note 9	Net financial results – Note 10	Other comprehensive income	Realized (loss) gain
Mismatches of quotational periods	(33,063)	27,514	746	-	(872)	10,299
Sales of zinc at a fixed price	-	3,626	-	-	-	(4,449)
Interest rate risk – IPCA vs. CDI	-	-	-	135	-	148
Interest rate risk – EUR vs. CDI	-	-	-	1,236	-	(1,236)
2024	**(33,063)**	**31,140**	**746**	**1,371**	**(872)**	**4,762**
2023	**14,988**	**(483)**	**(1,385)**	**(606)**	**732**	**13,271**

(d) Energy forward contracts

	2024	2023	Notional 2024	Notional 2023
Balance at the beginning of the year	**(16,064)**	**-**	**-**	**-**
Changes in fair value	81	(15,663)	-	-
Foreign exchanges effects	2,313	(401)	-	-
Energy forward contracts (Megawatts)	-	-	747,498	688,877
Balance at the end of the year	**(13,670)**	**(16,064)**	**747,498**	**688,877**

(e) Offtake agreement measured at FVTPL: Changes in fair value

	2024	2023	Notional 2024	Notional 2023
Balance at the beginning of the year	**(19,565)**	**(21,833)**	**27,562**	**30,810**
Changes in fair value – note 9	(3,347)	2,268	-	-
Deliveries of copper concentrates	-	-	(5,274)	(3,248)
Price cap realized (i)	3,246	-	-	-
Balance at the end of the year	**(19,666)**	**(19,565)**	**22,288**	**27,562**

(i) During 2024, there were sales with the copper price higher than the price cap, therefore resulting in the reduction of the financial instrument liability for these sales, and the recognition of revenue at fair values.

17 Trade accounts receivables

Accounting policy

Trade accounts receivables are amounts due from customers for goods sold or services provided in the ordinary course of the Company's business.

Trade accounts receivables are recognized initially at fair value and subsequently measured at:

(i) Fair value through profit or loss when they are related to the Company's accounts receivables portfolio outstanding at the balance sheet date that is designated at inception to be included in a forfaiting program whereby the Company, at its discretion, can discount certain outstanding trade accounts receivables and receive payments in advance. The program is used to meet short-term liquidity needs. Trade accounts receivables within this program are derecognized since all risks and rewards, control of the assets and contractual rights to receive the assets cash flows are transferred to the counterparty.

(ii) Fair value through profit or loss when they are related to sales that are subsequently adjusted to changes in LME prices, which are recorded in net revenues. These accounts receivable do not meet the SPPI criteria because there is a component of commodity price risk that modifies the cash flows that otherwise would be required by the sales contract.

(iii) Amortized cost using the effective interest rate method, less impairment, when the receivables do not meet the aforementioned classifications.

Credit risk can arise from non-performance by counterparties of their contractual obligations to the Company. To ensure an effective credit risk evaluation, management applies procedures related to the application for credit granting and approvals, renewal of credit limits, continuous monitoring of credit exposure in relation to established limits and events that trigger requirements for secured payment terms. As part of the Company's process, the credit exposures with all counterparties are regularly monitored and assessed.

The Company applies the IFRS 9 simplified approach to measure the impairment losses for trade accounts receivables. This approach requires the use of the lifetime expected credit losses on its trade accounts receivables measured at amortized cost. To calculate the lifetime expected credit losses the Company uses a provision matrix and forward-looking information. The additions to impairment of trade accounts receivables are included in selling expenses. Trade accounts receivables are generally written off when there is no expectation of recovering additional cash.

(a) Composition

	2024	2023
Trade accounts receivables	145,409	147,619
Related parties - note 20	885	852
Impairment of trade accounts receivables	(5,501)	(6,561)
	140,793	**141,910**

(b) Changes in impairment of trade accounts receivables

	2024	2023
Balance at the beginning of the year	**(6,561)**	**(4,326)**
Additions	(11,754)	(4,101)
Reversals	12,084	2,023
Foreign exchange gains (losses)	730	(157)
Balance at the end of the year	**(5,501)**	**(6,561)**

(c) Analysis by currency

	2024	2023
USD	121,240	122,025
BRL	19,540	19,435
Other	13	450
	140,793	**141,910**

(d) Aging of trade accounts receivables

	2024	2023
Current	129,918	125,625
Up to 3 months past due	12,693	18,529
From 3 to 6 months past due	568	1,405
Over 6 months past due	3,115	2,912
	146,294	**148,471**
Impairment of trade accounts receivables	(5,501)	(6,561)
	140,793	**141,910**

18 Inventory

Accounting policy

Inventory is stated at the lower of cost and net realizable value. Cost is determined using the weighted average cost method. The cost of finished goods and work in progress comprises raw materials, direct labor, other direct costs and related fixed production overheads (based on normal operating capacity). The normal operating capacity is supported by the historical annual production. The idle capacity cost is calculated considering the reduction in the level of production due to unusual events and the level of production not achieved in the ramp-up period. Variable production overhead costs are included in inventory costs based on the actual production level. Imports in transit are stated at the accumulated cost of each import. At the end of the reporting period, the net realizable value of inventories is assessed and a provision for non-realizable, losses on obsolete or slow-moving inventory may be recognized.

The provision for net realizable value is estimated considering the current selling price in the ordinary course of business, less any additional selling expenses. The write-downs and reversals are recognized within Cost of sales.

A provision for obsolete inventory, finished products, semi-finished products, raw materials and auxiliary materials is recognized when items cannot be used in normal production or sold because they are damaged or do not meet the Company's specification and is recognized as "Other income and expenses".

Slow-moving provision is recognized for inventory items that are in excess of the expected normal use or sale. The amount of slow-moving provision recognized is determined based on 20% of the carrying amount for each six-month period without use or sale and is recognized as "Other income and expenses".

(a) Composition

	2024	2023
Finished products	126,916	97,396
Semi-finished products	94,980	90,220
Raw materials	37,857	69,439
Auxiliary materials and consumables	105,160	121,126
Inventory provisions	(39,717)	(38,510)
	325,196	**339,671**

(b) Changes in the provision of the year

	2024	2023
Balance at the beginning of the year	**(38,510)**	**(95,602)**
Additions	(30,258)	(28,428)
Reversals	21,663	89,200
Foreign exchange gains (losses)	5,445	(3,680)
Divestments – note 1 (a)	1,943	-
Balance at the end of the year	**(39,717)**	**(38,510)**

19 Other assets and other liabilities

(a) Other assets

	2024	2023
Other recoverable taxes (i)	103,261	128,738
Advances to third parties	7,575	7,452
Prepaid expenses	7,945	9,427
Judicial deposits and other tax claim payments (ii)	78,568	35,094
Receivables from mining contractors	-	14,722
Other assets	26,572	21,115
	223,921	**216,548**
Current assets	88,195	86,934
Non-current assets	135,726	129,614

(i) Other recoverable taxes are composed mainly of tax credits related to ICMS (Tax on Circulation of Goods and Services), primarily generated from purchases. Additionally, there are PIS (Social Integration Program) and COFINS (Contribution to Social Security Financing) credits, essentially arising from the acquisition of fixed assets.

(ii) This amount is mainly comprised of USD 60,134 related to (i) Judicial deposits related to withholding taxes and other payments, and (ii) income tax claim payments both related to legal processes and discussions, which the Company has not provisioned, but that the Company need to pay to continue discussing in judicial or administrative levels.

(b) Other liabilities

	2024	2023
Advances from customers (i)	76,395	24,798
Use of public assets	18,047	22,733
Other trade payables	20,921	24,790
Other liabilities	33,319	51,623
	148,682	**123,944**
Current liabilities	82,662	31,186
Non-current liabilities	66,020	92,758

(i) On December 12, 2024, the Company signed a commercial advance agreement with a customer, in which it agreed to sell concentrates produced by El Porvenir for twelve months and received an advance payment of USD50,000. The advance payment was recorded as "*Other Liabilities*" and the corresponding revenues will be recognized upon delivery of the concentrate when performance obligations are met.

20 Related parties

The Company's related parties are subsidiaries, joint ventures, associates, shareholders and its related entities and key management personnel of the Company.

(a) Balances

	Cash and cash equivalents		Trade accounts receivables		Related Parties' assets		Trade payables and leases		Dividends payable		Related parties' liabilities	
Assets and liabilities	**2024**	**2023**	**2024**	**2023**	**2024**	**2023**	**2024**	**2023**	**2024**	**2023**	**2024**	**2023**
Parent												
Votorantim S.A.	-	-	-	-	2	3	101	1,985	-	-	3,658	2,522
Related parties												
Auren Comercializadora de Energia Ltda.	-	-	-	-	-	-	907	-	-	-	-	-
Campos Novos Energia S.A.	-	-	-	-	-	-	7,104	14,835	-	-	-	-
Companhia Brasileira de Alumínio	-	-	299	193	-	-	70	-	-	-	7	-
Group Andrade Gutierrez	-	-	-	-	-	-	-	10,908	-	-	-	-
Scotiabank Peru S.A.A.	42,422	6,744	-	-	-	-	5,404	2,202	-	-	-	-
Votorantim Cimentos S.A.	-	-	586	653	-	-	412	137	-	-	-	-
Votorantim International CSC S.A.C	-	-	-	-	-	-	-	-	-	-	420	891
Other	-	-	-	6	-	-	22	127	3,707	2,830	119	522
	42,422	**6,744**	**885**	**852**	**2**	**3**	**14,020**	**30,194**	**3,707**	**2,830**	**4,204**	**3,935**
Current	42,422	6,744	885	852	-	-	10,994	28,747	3,707	2,830	-	-
Non-current			-	-	2	3	3,026	1,447	-	-	4,204	3,935
	42,422	**6,744**	**885**	**852**	**2**	**3**	**14,020**	**30,194**	**3,707**	**2,830**	**4,204**	**3,935**

(b) Transactions

	Sales			Purchases and financial expenses		
Profit and loss	**2024**	**2023**	**2022**	**2024**	**2023**	**2022**
Parent						
Votorantim S.A.	-	-	-	8,908	7,484	4,704
Related parties						
Auren Comercializadora de Energia Ltda.	1,140	744	744	6,384	7,971	4,974
Campos Novos Energia S.A.	-	-	-	51,973	61,545	4,954
Companhia Brasileira de Alumínio	640	161	9,708	-	210	3,787
Group Andrade Gutierrez (i)	-	-	-	19,832	73,757	38,907
Scotiabank Peru S.A.A. (ii)	-	-	-	282	17	41
Votorantim Cimentos S.A.	-	-	-	-	1,050	1,494
Votorantim International CSC S.A.C	-	-	-	-	5,122	5,049
Other	-	-	-	1,061	436	1,157
	1,780	**905**	**10,452**	**88,440**	**157,592**	**65,067**

(i) As part of the execution of the Aripuanã project, in June 2019 the Company entered into a mining development services agreement with Andrade Gutierrez Engenharia S.A., in which one of the Company board of directors' member close family members may have significant influence at its holding level. Additionally, in June 2020, NEXA entered into one additional agreement with Consórcio Construtor Nova Aripuanã (a consortium of the Andrade Gutierrez group of companies) in connection with construction and operational services for the Aripuanã project. In mid-2024, the board member related to this entity terminated its contract with Nexa, so Andrade Gutierrez ceased to be a related party.

(ii) Related to interest expenses on lease contracts with Scotiabank Peru S.A.A., for which one of the Company's board of directors' member is an independent chairman and may have significant influence.

(c) Key management compensation

Key management includes the members of the Company's global executive team and Board of Directors. Key management compensation, including all benefits, was as follows:

	2024	2023
Short-term benefits	7,713	7,276
Other long-term benefits	116	77
	7,829	**7,353**

Short-term benefits include fixed compensation, payroll charges and short-term benefits under the Company's variable compensation program. Other long-term benefits relate to the variable compensation program.

21 Property, plant and equipment

Accounting policy

Property, plant and equipment are stated at their historical cost of acquisition or construction less accumulated depreciation and any recognized impairment losses. Historical cost includes expenditures that are directly attributable to the acquisition and construction of the assets. The mining projects development costs that are registered within Property, plant and equipment include (i) direct and indirect costs attributed to building the mining facilities; (ii) financial charges incurred during the construction period; (iii) depreciation of other fixed assets used during construction; and (iv) estimated decommissioning and site restoration expenses.

Subsequent costs are included in the asset's carrying amount, or recognized as a separate asset as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Company and they can be measured reliably. The carrying amount of any component accounted for as a separate asset is derecognized when replaced. All other repairs and maintenance are charged to the income statement during the reporting period in which they are incurred.

Replacement costs are included in the carrying amount of the asset when it is probable that the Company will realize future economic benefits in excess of the benefits expected from the asset in its current condition. Replacement costs are depreciated over the remaining useful life of the related asset.

Land is not depreciated. Depreciation of other assets is calculated using the straight-line method to reduce their costs to their residual values over their estimated useful lives.

The assets' residual values and useful lives are reviewed annually and adjusted if appropriate.

An asset's carrying amount is reduced to its recoverable amount when it is greater than the estimated recoverable amount, in accordance with the criteria adopted by the Company to determine the recoverable amount.

Gains and losses on disposals are determined by comparing the proceeds with the carrying amount and are recognized within "*Other income and expenses, net*" in the income statement.

Loans and financings costs directly related to the acquisition, construction or production of a qualifying asset that requires a substantial period of time to prepare for its intended use or sale are capitalized as part of the cost of that asset when it is probable that future economic benefits associated with the item will flow to the Company and costs can be measured reliably.

Stripping costs

In its surface mining operations, the Company must remove overburden and other waste to gain access to mineral ore deposits. The removal process is referred to as stripping. During the development of a mine, before production commences, when the stripping activity improves access to the ore body, the component of the ore body for which access has been improved can be identified and the costs can be measured reliably, a stripping activity asset is capitalized as part of the investment in the construction of the mine and is accounted for as part of Property, plant and equipment within assets and projects under construction. Subsequently, when the operation starts, the stripping costs are transferred to "Dams and Buildings" and are depreciated by a linear calculation considering the asset's useful life.

Stripping costs incurred during the production phase of operations are treated as production costs and are part of the inventory cost.

Mining Projects

The Company starts to capitalize a project's mineral exploration and evaluation costs at the beginning of its feasibility study phase, following completion of a pre-feasibility study in which probability of economic feasibility has been established and where there is sufficient geologic and economic certainty of converting mineral resources into proven and probable mineral reserves at a development stage (construction or execution phase) or production stage based on various factors including the known geology, metallurgy and life-of-mine ("LOM") plans.

Capitalized costs incurred during a project's mineral exploration and evaluation stages are classified within Mining projects, under Property, plant and equipment until the project starts its development stage and are only depreciated by the UoP method once the development stage finishes and the project's operation starts.

Costs incurred during a project's development stage are also capitalized under Property, plant, and equipment but within Assets and projects under construction. In this way, the capitalized mineral exploration and evaluation costs will remain within Mining projects and will only be depreciated by the UoP method once the development stage finishes and the project´s operation starts.

Once the development stage is finished and the project's operation starts, the capitalized development costs are reclassified to the appropriate group of assets considering their nature and are depreciated on a linear calculation based on the assets' useful life.

Based on the above, once a project begins operation, there will be depreciation coming from the project's capitalized mineral exploration and evaluation costs within the Mining projects account and based on the UoP method and from the project's capitalized development costs within the corresponding group of assets based on their useful life.

The carrying value of the capitalized mineral exploration and evaluation costs, which remain within Mining projects, and the capitalized development costs, which are within Assets and projects under construction, of the projects are assessed for impairment at least annually or whenever evidence indicates that the assets may be impaired in accordance with IFRS 6 and IAS 36. If the Company decides at any moment to discontinue the project, this could be an impairment indicator that will be assessed under the impairment test. For purposes of this impairment assessment, the projects are allocated to cash generating units ("CGUs") when applicable. The annual impairment test is disclosed in note 31.

Refer to note 8 for the Company's accounting policy related to expensed mineral exploration and project evaluation costs for mining projects.

Costs to acquire exploration legal mining rights are included as Intangible within Rights to use natural resources as explained in note 23.

Asset retirement obligations

An asset retirement obligation is an obligation related to the permanent removal from service of a tangible long-lived asset that results from the acquisition, construction or development, or the normal operations of a tangible long-lived asset. At the initial recognition of an asset retirement obligation and at the periodical revisions of the expected disbursements and the discount rate, the changes in the liability are charged to Property, plant and equipment.

The capitalized amount recognized in Property, plant and equipment is depreciated based on the UoP method. Any reduction in the provision that exceeds the carrying amount of the asset, is immediately recognized in the income statement as "Other income and expenses, net."

Impairment

Refer to note 31 for the Company's accounting policy related to impairment of Property, plant and equipment.

(a) Changes in the year

							2024
	Lands, dams and buildings	**Machinery, equipment, and facilities**	**Assets and projects under construction**	**Asset retirement obligations**	**Mining projects (i)**	**Other**	**Total**
Balance at the beginning of the year							
Cost	1,710,083	2,896,565	512,925	219,449	215,913	44,601	5,599,536
Accumulated depreciation and impairment	(795,717)	(2,048,145)	(67,485)	(139,088)	(94,153)	(16,334)	(3,160,922)
Balance at the beginning of the year	**914,366**	**848,420**	**445,440**	**80,361**	**121,760**	**28,267**	**2,438,614**
Additions	-	667	276,839	45,891	-	85	323,482
Disposals and write-offs	(23)	(3,408)	(8,984)	-	(4,111)	(53)	(16,579)
Depreciation	(104,929)	(113,679)	-	(5,221)	(834)	(1,201)	(225,864)
Impairment (loss) reversal of long-lived assets - note 31	12,147	964	(7,149)	1,495	(50,197)	336	(42,404)
Divestments – note 1 (a)	(2,990)	(4,265)	(290)	(1,377)	(4,150)	(381)	(13,453)
Foreign exchange effects	(163,559)	(133,501)	(34,196)	(16,857)	(2,946)	(4,369)	(355,428)
Remeasurement	-	-	-	(9,947)	-	-	(9,947)
Transfers	243,150	112,594	(357,948)	-	30	1,261	(913)
Balance at the end of the year	**898,162**	**707,792**	**313,712**	**94,345**	**59,552**	**23,945**	**2,097,508**
Cost	1,673,095	2,515,318	381,216	204,903	208,627	34,978	5,018,137
Accumulated depreciation and impairment	(774,933)	(1,807,526)	(67,504)	(110,558)	(149,075)	(11,033)	(2,920,629)
Balance at the end of the year	**898,162**	**707,792**	**313,712**	**94,345**	**59,552**	**23,945**	**2,097,508**
Average annual depreciation rates %	4	9	-	UoP	UoP		

							2023
	Lands, dams and buildings	**Machinery, equipment, and facilities**	**Assets and projects under construction**	**Asset retirement obligation**	**Mining projects (i)**	**Other**	**Total**
Balance at the beginning of the year							
Cost	1,512,360	2,636,582	521,191	200,665	221,077	44,094	5,135,969
Accumulated depreciation and impairment	(671,028)	(1,870,591)	(65,386)	(125,118)	(92,652)	(15,919)	(2,840,694)
Net balance at the beginning of the year	**841,332**	**765,991**	**455,805**	**75,547**	**128,425**	**28,175**	**2,295,275**
Additions	113	953	309,039	318	-	45	310,468
Disposals and write-offs	-	(212)	(3,834)	-	-	(43)	(4,089)
Depreciation	(90,258)	(121,004)	-	(5,165)	(1,372)	(1,212)	(219,011)
Impairment loss of long-lived assets - note 31	(16,857)	(27,748)	(10,890)	(6,691)	(7,257)	(2,513)	(71,956)
Foreign exchange effects	47,840	43,495	18,088	4,698	1,502	1,455	117,078
Remeasurement	-	-	-	11,654	-	-	11,654
Transfers	132,196	186,945	(322,768)	-	462	2,360	(805)
Balance at the end of the year	**914,366**	**848,420**	**445,440**	**80,361**	**121,760**	**28,267**	**2,438,614**
Cost	1,710,083	2,896,565	512,925	219,449	215,913	44,601	5,599,536
Accumulated depreciation and impairment	(795,717)	(2,048,145)	(67,485)	(139,088)	(94,153)	(16,334)	(3,160,922)
Balance at the end of the year	**914,366**	**848,420**	**445,440**	**80,361**	**121,760**	**28,267**	**2,438,614**
Average annual depreciation rates %	4	9	-	UoP	UoP		

(i) Only the amounts of the operating unit Atacocha are being depreciated under the UoP method.

22 Intangible assets

Accounting policy

Goodwill

Goodwill arising from business combinations is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree, and the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net assets acquired. Goodwill is not amortized but is tested for impairment annually and whenever circumstances indicate that the carrying amount may not be recovered. Refer to note 31 for the Company's impairment accounting policy and critical estimates and assumptions and judgments.

Rights to use natural resources

The significant costs incurred for the acquisition of legal rights to explore mining concessions and develop mineral properties are capitalized and are amortized as production costs when the associated projects start their commercial operation using the UoP method over their useful lives. Useful lives consider the period of extraction for both mineral reserves and mineral resources, which includes a portion of the Company's inferred resources in the Company's mining operations. The costs for the acquisition of legal rights attributed to mining projects are not depreciated until the project becomes operational and production activities start.

The costs incurred are impaired if the Company determines that the projects and their mineral rights associated have no future economic value. For purposes of impairment assessment, rights to use natural resources are allocated to CGUs. Refer to note 31 for the Company's impairment accounting policy.

Critical accounting estimates, assumptions and judgments - Quantification of mineral reserves and resources for useful life calculation

The Company classifies proven and probable reserves, and measured, indicated and inferred resources based on the definitions of the United States Securities and Exchange Commission's (SEC) Modernized Property Disclosure Requirements for Mining Registrants as described in Subpart 229.1300 of Regulation S-K, Disclosure by Registrants Engaged in Mining Operations (S-K 1300) and Item 601 (b)(96) Technical Report Summary.

The useful life determination applied to the rights to use natural resources reflect the pattern in which the benefits are expected to be derived by the Company and is based on the estimated life of mine ("LOM"). Any changes to the LOM, based on new information regarding estimates of mineral reserves and mineral resources and mining plan, may affect prospectively the LOM and amortization rates.

The estimation process of mineral reserves and mineral resources is based on a technical evaluation, which includes geological, geophysics, engineering, environmental, legal and economic estimates and may have relevant impact on the economic viability of the mineral reserves and mineral resources. These estimates are reviewed periodically, and any changes are reflected in the expected LOM. Management is confident based on testing, continuity of the ore bodies and conversion experience that a part of the inferred resources will be converted into measured and indicated resources, and if they are economically recoverable, and such inferred resources may also be classified as proven and probable mineral reserves. Where the Company can demonstrate the expected economic recovery with a high level of confidence, inferred resources are included in the amortization calculation.

However, the future conversion of inferred resources is inherently uncertain and involves estimates, assumptions and judgments that could have a material impact on the Company's results of operations.

(a) Changes in the year

				2024
	Goodwill (i)	**Rights to use natural resources**	**Other**	**Total**
Balance at the beginning of the year				
Cost	630,787	1,859,147	53,865	2,543,799
Accumulated amortization and impairment	(323,675)	(1,279,596)	(31,249)	(1,634,520)
Balance at the beginning of the year	**307,112**	**579,551**	**22,616**	**909,279**
Additions	-	-	5,748	5,748
Disposals and write-offs	-	(226)	(116)	(342)
Amortization	-	(65,710)	(2,435)	(68,145)
Impairment reversal of long-lived assets – note 31	-	9,534	-	9,534
Foreign exchange effects	(1,715)	(15,433)	(5,152)	(22,300)
Transfers	-	(225)	1,138	913
Balance at the end of the year	**305,397**	**507,491**	**21,799**	**834,687**
Cost	316,087	1,810,609	49,896	2,176,592
Accumulated amortization and impairment	(10,690)	(1,303,118)	(28,097)	(1,341,905)
Balance at the end of the year	**305,397**	**507,491**	**21,799**	**834,687**
Average annual depreciation rates %	-	UoP	5	

				2023
	Goodwill (i)	**Rights to use natural resources**	**Other**	**Total**
Balance at the beginning of the year				
Cost	611,909	1,855,014	65,246	2,532,169
Accumulated amortization and impairment	(267,342)	(1,207,596)	(40,304)	(1,515,242)
Balance at the beginning of the year	**344,567**	**647,418**	**24,942**	**1,016,927**
Additions	-	-	3,087	3,087
Amortization	-	(71,488)	(3,041)	(74,529)
Impairment (loss) reversal of long-lived assets – note 31	(42,660)	-	(27)	(42,687)
Foreign exchange effects	346	3,489	1,727	5,562
Transfers	4,859	132	(4,072)	919
Balance at the end of the year	**307,112**	**579,551**	**22,616**	**909,279**
Cost	630,787	1,859,147	53,865	2,543,799
Accumulated amortization and impairment	(323,675)	(1,279,596)	(31,249)	(1,634,520)
Balance at the end of the year	**307,112**	**579,551**	**22,616**	**909,279**
Average annual depreciation rates %	-	UoP	5	

(i) As of December 31, 2024, the Company's recognized goodwill balances were as follows: USD 95,087 (2023 - USD 95,717) allocated to Cajamarquilla CGU, USD 3,887 (2023 - USD 4,972) allocated to Juiz de Fora, and USD 206,423 (2023 - USD 206,423) allocated to the Mining Peru group of CGUs. In 2024, the recoverability of goodwill was tested, as explained in note 31.

23 Right-of-use assets and lease liabilities

Accounting policy

Right-of-use assets represent the right to use an underlying asset for the lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease.

Lease terms are negotiated on an individual asset basis and contractual provisions contain a wide range of different terms and conditions. The lease agreements do not impose any covenants, but leased assets may not be used as security for borrowing purposes.

The Company accounts for non-lease components such as service costs separately, whenever applicable. The Company's lease terms may include options to extend or terminate the lease and when it is reasonably certain that we will exercise that option, the financial effect is included in the contract's measurement.

Payments associated with short-term leases, and all leases of low-value assets, are recognised on a straight-line basis as an expense in profit or loss. Short-term leases are leases with a lease term of 12 months or less without a purchase option.

Measurement

Liabilities arising from a lease contract are initially measured on a present value basis, using the incremental borrowing rate approach. The incremental borrowing rate is determined by the Company based on equivalent financial costs that would be charged by a counterparty for a transaction with the same currency and a similar amount, term and risk of the lease contract. The finance cost charged to the income statement produces a constant periodic rate of interest over the lease term. On December 31, 2024, incremental borrowing rate were between 7.90 to 13.65% for Brazil; 2.85% to 9.53% for Peru and 5.00% for Luxembourg.

Lease contracts are recognized as a liability with a corresponding right-of-use asset at the date at which the leased asset is available for use by the Company. The right-of-use asset also includes any lease payments made, and it is amortized over the shorter of the asset's useful life and the lease term on a straight-line basis. Amortization expenses are classified either in "*Cost of sales*" or "Administrative *expenses*" based on the designation of the related assets.

When the lease liability is remeasured, a corresponding adjustment is made to the carrying amount of the right-of-use asset or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

(c) Right-of-use assets - Changes in the year

					2024	2023
	Lands and Buildings	Machinery, equipment, and facilities	IT equipment	Vehicles	Total	Total
Balance at the beginning of the year						
Cost	16,327	75,632	1,064	18,539	111,562	55,608
Accumulated amortization	(3,969)	(23,832)	(697)	(8,246)	(36,744)	(28,610)
Balance at the beginning of the year	**12,358**	**51,800**	**367**	**10,293**	**74,818**	**26,998**
New contracts (*)	16,500	43,569	293	4,593	64,955	68,428
Disposals and write-offs	(1,792)	-	-	(3,556)	(5,348)	(7,374)
Amortization	(3,306)	(28,001)	(263)	(4,619)	(36,189)	(16,935)
Remeasurement	(388)	532	-	-	144	1,105
Foreign exchange effects	(1,867)	(9,341)	(51)	(1,856)	(13,115)	2,710
Transfers	-	-	-	-	-	(114)
Balance at the end of the year	**21,505**	**58,559**	**346**	**4,855**	**85,265**	**74,818**
Cost	24,592	119,566	910	12,640	157,708	111,562
Accumulated amortization	(3,087)	(61,007)	(564)	(7,785)	(72,443)	(36,744)
Balance at the end of the year	**21,505**	**58,559**	**346**	**4,855**	**85,265**	**74,818**
Average annual amortization rates %	31	34	33	34		

(i) During the fourth quarter of 2024, the Company identified certain lease contracts from previous years in its Peruvian subsidiaries that were not initially recognized in accordance with IFRS 16. The Company's management performed quantitative and qualitative analysis and concluded that the misstatement is immaterial to the current year of 2024 and to the previously issued financial statements as of and for the years ended December 31, 2023, and 2022. Therefore, the effects of these contracts in the current year were recorded as an out-of-period adjustment. As of December 31, 2024, the Company recognized USD 21,664 as "Right of use" assets, USD 25,174 as "Lease liabilities" and USD 3,510 as expense in "Profit and Loss". If the Company had recorded these amounts in 2023, these would have been USD 32,871, USD 36,597 and USD 3,726, respectively.

(b) Lease liabilities - Changes in the year

	2024	2023
Balance at the beginning of the year	**77,405**	**27,205**
New contracts	64,955	68,428
Disposals and write-offs	(4,853)	(6,790)
Payments of lease liabilities	(32,056)	(15,170)
Interest paid on lease liabilities	(11,645)	(6,086)
Remeasurement	144	1,105
Accrued interest – note 10	13,517	6,132
Foreign exchange effects	(11,568)	2,581
Balance at the end of the year	**95,899**	**77,405**
Current liabilities	32,747	21,678
Non-current liabilities	63,152	55,727

24 Loans and financings

Accounting policy

Loans and financings are initially recognized at fair value, net of transaction costs incurred, and are subsequently measured at amortized cost, unless they are designated as fair value option, if necessary to eliminate the accounting mismatch that would arise if amortized cost were used. Any difference between the proceeds (net of transaction costs) and the total amount payable is recognized in the income statement as interest expense over the period of the loans using the effective interest rate method, except for the loans measured at fair value.

Loans and financings are classified as current liabilities unless the Company has the unconditional right to defer repayment of the liability for at least 12 months after the reporting period.

Fees paid on the establishment of loan facilities are recognized as transaction costs of the loan to the extent that it is probable that some or all of the facility will be drawn down. In this case, the fee is deferred until the drawdown occurs.

To the extent that there is no evidence that it is probable that some or all of the facility will be drawn down, the fee is capitalized as a prepayment for liquidity services and amortized over the period of the facility to which it relates.

(a) Composition

					Total		Fair value
				2024	2023	2024	2023
Type	**Average interest rate**	**Current**	**Non-current**	**Total**	**Total**	**Total**	**Total**
Eurobonds – USD	Pre-USD 6.43%	20,399	1,210,730	1,231,129	1,212,554	1,247,522	1,207,918
BNDES	TJLP + 2.82% SELIC + 3.10% TLP - IPCA + 5.84%	23,072	154,325	177,397	208,947	156,565	187,796
Export credit notes	SOFR TERM + 2.50% SOFR + 2.40%	2,385	181,750	184,135	237,862	184,737	237,791
Debentures	CDI+ 1.50%	3,040	104,270	107,310	-	105,012	-
Other		1,987	60,675	62,662	66,203	58,779	64,497
		50,883	**1,711,750**	**1,762,633**	**1,725,566**	**1,752,615**	**1,698,002**
Current portion of long-term loans and financings (principal)		20,811					
Interest on loans and financings		30,072					

(b) Loans and financing transactions during the year ended on December 31, 2024

In March 2024, Nexa Recursos Minerais (Nexa BR) entered into a Note agreement in the total principal amount of EUR 27,917 thousand (approximately USD 30,244) at an annual gross interest rate of 5.6% p.a., maturing in June 2024. Additionally, a global derivative contract was established to swap the currency fluctuation of the euro to hedge this loan operation, with a notional value of EUR 27,917, maturing on June 3, 2024, and a coverage percentage of 100% at a cost of CDI (Interbank Certificate of Deposit) + 0.90%. Both contracts were classified as fair value through profit or loss. On June 3, 2024, the Note Agreement was settled in cash, with a total payment of USD 30,683 (EUR 28,234), comprised of USD 30,244 of principal and USD 360 of interest expenses, including USD 79 of exchange variation.

On April 2, 2024, Nexa BR concluded a debenture issuance in the amount of BRL 650,000 (approximately USD 130,099), with an annual interest rate of CDI plus 1.50% p.a., for a 6-year term with semi-annual payments. The debenture was issued under the "Private Instrument of Indenture of the 1st (First) Issuance of Simple Debentures" and submitted for registration with the Brazilian Securities Commission ("CVM") under the automatic distribution registration procedure, pursuant to CVM Resolution 160. The Debenture is characterized as "ESG-linked debentures", as the Company will have an option of redemption or amortization premium in case it meets certain agreed upon ESG goals.

Early redemption of the full notes or anticipated amortization options will be available from April 1, 2026, subject to an annually decreasing payment of a premium. This premium could be reduced if Nexa meets the annual 2025-2028 greenhouse gas emission reduction targets outlined in Nexa's ESG goals framework.

On April 9, 2024, the Company concluded a bond offering in the amount of USD 600,000, for a period of 10 years, at an interest rate of 6.75% per year, and used the proceeds to repurchase part of its 2027 and 2028 notes in a concurrent tender offer.

On June 12, 2024, Nexa BR drew from BNDES (Brazilian national bank for economic and social development) an ESG credit line linked to the continuous improvement of the Company's environmental and social indicators, in the amount of BRL 200,000 (approximately USD 40,030), maturing in March 2032. The amortization will occur in 72 consecutive installments after a 2-year grace period provided in the contract, at an annual cost of IPCA plus 5.41% p.a., and a spread rate of 1.84%. After the 2-year grace period, the spread rate of 1.84% can be reduced to 1.44% if ESG goals are met, otherwise, the rate is increased to 2.84%.

Bonds repurchase

On April 10, 2024, the Company repurchased USD 484,504 of its 2027 Notes, or 69.2% of the total outstanding principal amount. In connection with the 2027 tender, the Company paid USD 11,285 in accrued interest, with a total disbursement of USD 495,789. Additionally, related to this transaction, the Company amortized the proportional portion of debt issue costs in the amount of USD 2,605.

On April 15, 2024, concluding the Tender Offer, the Company repurchased a portion of its 2028 Notes, in the amount of USD 99,499, or 19.9% of the total outstanding principal amount. Along with this repurchase, the Company paid USD 1,563 in accrued interest and a premium of USD 1,989, totaling a disbursement of USD 103,051. Furthermore, on the transaction date, the Company also amortized the proportional portion of debt issue costs in the amount of USD 743.

By December 2024, Nexa had a total expense of USD 7,069 (Note 10) regarding bond repurchases (including USD 1,732 in agent fees). Following these transactions, the remaining outstanding principal amounts are USD 215,496 for the 2027 Notes and USD 400,501 for the 2028 Notes.

(c) Changes in the year

	2024	2023
Balance at the beginning of the year	**1,725,566**	**1,669,259**
New loans and financings- note 24 (b)	799,439	56,408
Debt issue costs	(7,577)	(74)
Interest accrual	130,896	112,612
Amortization of debt issue costs	6,182	2,362
Changes in fair value of loans and financings - note 10	3,627	525
Changes in fair value of financing liabilities related to changes in the Company's own credit risk	1,572	583
Debt modification gain - note 24 (g)	(3,142)	-
Payments of loans and financings	(681,475)	(27,087)
Foreign exchange effects	(84,387)	23,996
Interest paid on loans and financings	(128,068)	(113,018)
Balance at the end of the year	**1,762,633**	**1,725,566**

(d) Maturity profile

							2024
	2025	2026	2027	2028	2029	As from 2030	Total
Eurobonds – USD (i)	20,399	(2,609)	216,328	399,896	(541)	597,656	1,231,129
BNDES	23,072	23,642	16,714	16,714	12,142	85,113	177,397
Export credit notes	2,385	(398)	89,591	(419)	92,976	-	184,135
Debentures	3,040	(164)	(164)	(164)	(164)	104,926	107,310
Other	1,987	1,779	1,779	51,779	1,779	3,559	62,662
	50,883	**22,250**	**324,248**	**467,806**	**106,192**	**791,254**	**1,762,633**

(i) The negative balances refer to related funding costs (fee) amortization.

(e) Analysis by currency

			2024	2023
	Current	Non-current	Total	Total
USD	22,954	1,442,480	1,465,434	1,446,225
BRL	27,929	269,270	297,199	279,341
	50,883	**1,711,750**	**1,762,633**	**1,725,566**

(f) Analysis by index

			2024	2023
	Current	Non-current	Total	Total
Fixed rate	20,399	1,210,730	1,231,129	1,212,554
SOFR	2,557	231,750	234,307	233,671
TLP	12,000	146,052	158,052	174,000
CDI	3,040	104,270	107,310	54,385
TJLP	5,439	13,374	18,813	26,511
BNDES SELIC	7,448	5,574	13,022	24,445
	50,883	**1,711,750**	**1,762,633**	**1,725,566**

(g) Export Credit Note rollover

In March 2024, the Company renegotiated a term loan with a principal amount of USD 90,000, maturing in October 2024, and with a cost based on the three-month term SOFR (“Secured Overnight Financing Rate”) plus 1.80% p.a. The renegotiated debt with the same counterparty has a maturity of February 2029 and a cost of three-month term SOFR plus 2.40% p.a. This transaction has been accounted for as debt modification, and a gain of USD 3,142 as disclosed in Note 9.

(h) Guarantees and financial covenants

The Company has certain loans and financing agreements subject to certain financial covenants at a consolidated level, such as (i) leverage ratio and (ii) capitalization ratio, and (iii) debt service coverage ratio that are measured annually at the end of each reporting period. When applicable, these compliance obligations are standardized for all debt agreements.

In the event of non-compliance with any of the financial covenants, the Company has the possibility of remedying it by granting real guarantees, surety bonds, or presenting bank guarantees for the total outstanding balances, within a period ranging from 60 (sixty) to 120 (one hundred and twenty) days from the date of the filing of the consolidated financial statements or the date of the formal written communication issued by the bank, after bank has received the covenant performance report from the Company, depending on each contract. In case the Company fails to provide any of the remedial measures within the stipulated period, it may result in an event of early maturity of the loans. As a result, the Company may lose the right to defer the payments for more than 12 months and, consequently, may have to classify the loans as current.

As of December 31, 2024, the Company did not comply with one of the financial covenants included in the BNDES loan agreements, referring to the capitalization ratio, which is measured as Equity/Total Assets, and must be equal to or greater than 0.3. This non-compliance is primarily due to losses accumulated in the last three years, impairment losses, one-off events, and negative impacts resulting from the extended ramp-up phase of Aripuanã. The debt continues to be presented as non-current, as the Company obtained bank guarantees prior to December 31,2024. In addition, on February 19, 2025 (subsequent event), the Company obtained a waiver for this covenant comprising the period of December 31, 2024 to December 31, 2025.

The Company remains committed to adopt measures to ensure compliance with all financial ratios and covenants in the up-coming periods, including the review of its capital structure, the implementation of initiatives to improve operational performance and the reduction of risk exposure.

Except for BNDES discussion above, no relevant changes to the contractual guarantees occurred in the year ending on December 31, 2024.

25 Trade Payables

Accounting policy

Trade payables represent liabilities for goods and services that were provided to the Company before the end of the financial year which are unpaid. Trade and other payables are presented as current liabilities unless payment is not due within 12 months after the reporting period. These amounts are recognized initially at their fair value and subsequently measured at amortized cost using the effective interest method.

(a) Composition

	2024	2023
Trade payables	434,672	423,611
Trade payable with related parties - note 20 (a)	8,616	27,992
	443,288	**451,603**

26 Confirming Payables

Accounting policy

The Company has contracts with some suppliers whose commercial payment varies between 90 and 180 days, which can be negotiated individually with the supplier and reach 210 days, without any additional guarantees, except for a specific supplier for which a letter of guarantee is provided. In these contracts, the supplier has the option to request a bank to advance the payment of their commercial invoice within 180 days, before the invoice matures. As a result of those contracts between the suppliers and the bank, the commercial terms agreed with the Company do not change. In accordance with the commercial agreement, the supplier communicates to the Company its interest in selling the invoice to the bank, and it is only the supplier who can decide to sell its invoice at any time during the commercial period. With this option, suppliers can improve their working capital position. The bank pays the supplier with an interest discount rate and the Company assumes part of the interest payment to the supplier. In certain cases, the supplier assumes the integral payment of interest. While the nature of the trade payable does not change, the Company believes that the separate presentation of these accounts within "*Confirming payables*" is relevant to the understanding of the Company's financial position.

Based on concepts of IFRS 9, the Company assesses whether the payment term extension arrangement substantially modifies the original liability based on qualitative and quantitative assessments. If the original liability has not been substantially modified, the original liability remains and is disclosed as "*Confirming Payable*". If the original liability has been substantially modified, the Company derecognizes the original liability (confirming payables) and recognizes a new financial liability as "*Other financial liabilities*". Any gain/loss is recognized in the "*Income Statement*".

The Company concluded that for December 31, 2024, the transactions maintain their essence as "confirming payables" taking into consideration Nexa's assessment policy.

Payments of the principal amounts and interest reimbursements are presented within the "operating activities group" in the Company's cash flow statement, in accordance with IAS 7, as the Company classifies the actual transactions as confirming payable.

(a) Carrying amount of financial liabilities

	2024	2023
Confirming Payables	268,175	234,385

As of December 31, 2024, financial institutions have paid the total amount of confirming payables to the suppliers.

(b) Range of payments due dates

	2024 Days after invoice	2023 Days after invoice
Liabilities that are part of confirming payables	60 - 210	60 - 210
Comparable trade payables that are not part of a confirming payables	30 - 120	30 - 120

(c) Non-cash changes

There were no business combinations or material foreign exchange differences in either period.

27 Asset retirement, restoration and environmental obligations

Accounting policy

Provision for asset retirement obligations include costs for restoration and closure of the mining assets and is recognized due to the development or mineral production, based on the net present value of estimated closure costs. Other restoration obligations regarding the de-characterization of their structures includes estimated mandatory costs as required by the Brazilian Government. Management uses its judgment and previous experience to determine the potential scope of rehabilitation work required and the related costs associated with that work, which are recognized as a *"Property, plant and equipment"* for asset retirement obligations relating to operating mining assets or as "*Other income and expenses, net*" for non-operating structures and for de-characterization of environmental obligations and other restoration obligations include costs related to rehabilitation of areas damaged by the Company in its extractive actions (for example - soil contamination, water contamination, among others) or penalties. Therefore, it becomes an event that creates obligations when these environmental damages are detected by the Company, when a new law requires that the existing damage be rectified or when the Company publicly accepts any responsibility for the rectification, creating a constructive obligation. The costs to remedy an eventual unexpected contamination, which give rise to a probable loss and can be reliably estimated, must be recognized in "*Other income and expenses, net*" in income statement.

In addition, investments in infrastructure, machinery and equipment regarding operational improvements to avoid future environmental damage, are not provisioned, because it is expected that these assets will bring future economic benefits to the operating units, thus it is capitalized as Property, plant and equipment.

The liabilities are discounted to present value using a credit risk-adjusted rate that reflects current market assessments of the time value of the money and the specifics risks for the asset to be restored. The interest rate charges relating to the liability are recognized as an accretion expense in the Net financial results. Difference in the settlement amount of the liability is recognized in the income statement.

Critical accounting estimates, assumptions and judgments

The initial recognition and the subsequent revisions of the asset retirement obligations, other restoration obligations, and environmental obligations consider critical future closure and repairing costs and several assumptions such as interest rates, inflation, useful lives of the assets and the estimated moment that the expenditure will be executed. These estimates are reviewed annually by the Company or when there is a relevant change in these assumptions.

Cost estimates can vary in response to many factors of each site that include timing, expected LOM, changes to the relevant legal or government requirements and commitments with stakeholders, review of remediation and relinquishment options, emergence of new restoration techniques, stage of engineering evaluation maturity among others. Engineering projects for each liability are in different stages of maturity, some of them still in the conceptual engineering phase, for which the estimation of expenditures includes in its methodology a high degree of uncertainty in the definition of the total cost of the project in accordance with best market practices.

External experts support the cost estimation process where appropriate. These factors either isolated or consolidated could significantly affect the future income statement and balance sheet position.

(a) Changes in the year

				2024	2023
	Asset retirement obligations	**Environmental obligations**	**Other restoration obligations**	**Total**	**Total**
Balance at the beginning of the year	**253,533**	**54,265**	**7,121**	**314,919**	**266,319**
Additions (ii)	54,968	1,407	-	56,375	13,979
Write-offs	-	(710)	-	(710)	-
Reversals	-	(1)	-	(1)	-
Payments	(13,552)	(4,233)	-	(17,785)	(12,383)
Divestments – note 1 (a)	(31,702)	(176)	-	(31,878)	-
Foreign exchange effects	(26,440)	(11,153)	(1,775)	(39,368)	11,917
Interest accrual - note 7	22,096	3,445	517	26,058	26,969
Remeasurement - discount rate (i) / (ii)	(18,495)	(10,685)	956	(28,224)	8,118
Balance at the end of the year	**240,408**	**32,159**	**6,819**	**279,386**	**314,919**
Current liabilities	40,555	3,935	3,071	47,561	33,718
Non-current liabilities	199,853	28,224	3,748	231,825	281,201

(i) As of December 31, 2024, the credit risk-adjusted rate used for Peru was between 3.39% and 12.29% (December 31, 2023: 10.86% and 12.52%) and for Brazil was between 4.02% and 8.51% (December 31, 2023: 6.94% and 11.11%).

(ii) The change in the year ended on December 31, 2024, was mainly due to an "out of period" adjustment of USD 13,416 in the asset retirement obligation related to old and non-operational structures in the Peruvian subsidiaries, which were not identified in previous years and therefore were not recognized by the Company. Additionally, there were changes in the time of expected disbursements on decommissioning obligations in certain operations, in accordance with updates in their dams' obligations, asset retirement and environmental obligations studies, along with an increase in the discount rates, as described above. As a result, as of December 31, 2024, the Company's asset retirement obligations for operational assets increased by USD 35,944 (December 31, 2023: decrease of USD 11,972) as shown in note 21; and asset retirement and environmental obligations for non-operational assets gain in USD 13,750 (December 31, 2023: expense of USD 10,125) as shown in note 9.

28 Provisions

Accounting policy

Provisions for legal claims and judicial deposits

Provisions for legal claims are recognized when there is a combination of the following conditions: (i) the Company has a present legal or constructive obligation as a result of past events; (ii) it is probable (more likely than not) that an outflow of resources will be required to settle the obligation; and (iii) the amount can be reliably estimated. The provisions are periodically estimated, and the likelihood of losses is supported by the Company's legal counsel.

Provisions are measured at the present value of the expenditure expected to be required to settle the obligation using a discount rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to the passage of time is recognized as Financial Expenses.

When a claim is secured by a judicial deposit, the Company offsets the provision with the judicial deposit amount in the consolidated balance sheet. However, the Company also has judicial deposits for claims for which the likelihood of loss is possible or remote and for which no provision is recognized. In such cases, these amounts are recognized as outstanding judicial deposits in the Company's assets.

Critical accounting estimates and assumptions – Provisions for legal claims

The Company is part of ongoing tax, labor, civil and environmental lawsuits which are pending at different court levels. The provisions for potentially unfavorable outcomes of litigation in progress are established and updated based on management evaluation and require a high level of judgment regarding the matters involved, supported by the positions of external legal advisors. Income tax claims are discussed at the current and deferred income tax section (note 11).

(a) Changes in the year

					2024	2023
	Tax	Labor	Civil	Environmental	Total	Total
Balance at the beginning of the year	**9,912**	**22,294**	**760**	**23,821**	**56,787**	**43,897**
Additions	272	7,723	1,433	3,697	13,125	20,957
Reversals	(1,612)	(7,768)	-	(5,653)	(15,033)	(7,065)
Interest accrual	623	1,472	79	228	2,402	455
Payments	(15)	(2,727)	(20)	(1,564)	(4,326)	(6,966)
Foreign exchange effects	(1,993)	(4,190)	(70)	(1,474)	(7,727)	4,029
Other	(83)	605	(118)	-	404	1,480
Balance at the end of the year	**7,104**	**17,409**	**2,064**	**19,055**	**45,632**	**56,787**

(b) Breakdown of legal claims provisions

The provisions and the corresponding judicial deposits are as follows:

			2024			2023
	Judicial deposits	Provisions	Carrying amount	Judicial deposits	Provisions	Carrying amount
Tax	(1,118)	8,222	7,104	(1,372)	11,284	9,912
Labor	(985)	18,394	17,409	(1,810)	24,104	22,294
Civil	-	2,064	2,064	-	760	760
Environmental	-	19,055	19,055	-	23,821	23,821
Balance at the end of the year	**(2,103)**	**47,735**	**45,632**	**(3,182)**	**59,969**	**56,787**

As of December 31, 2024, the Company's outstanding judicial deposits, that are not presented net of the provisions are USD 13,539 and are recorded as "Other Assets" in the balance sheet (December 31, 2023: USD 13,740).

(c) Contingent liabilities

Legal claims that have a possible likelihood that an obligation will arise are disclosed in the Company's consolidated financial statements. The Company does not recognize a liability when it is not probable that an outflow of resources will be required or because the amount of the liability cannot be reliably calculated. These legal claims are summarized below:

	2024	2023
Tax (i)	110,165	133,038
Labor (ii)	24,530	48,274
Civil (iii)	17,821	12,823
Environmental (iv)	106,799	124,773
	259,315	**318,908**

(i) Comments on contingent tax liabilities

The main contingent liabilities relating to tax lawsuits are discussed below.

Income tax over transfers of shares in Peru

Relates to assessments issued by the SUNAT, where the Company was jointly and severally liable for the payment of income tax by a foreign investor, in a supposed capital gain on transfer of shares. The estimated financial effect of this contingent liability is USD 41,723 (2023: USD 84,050).

Compensation for exploration for mineral resources

Relates to assessments issued by the Brazilian National Department of Mineral Production for the alleged failure to pay or underpayment of financial compensation for the exploration of mineral resources ("CFEM"). The estimated financial effect of this contingent liability is USD 10,676 (2023: USD 12,927).

Indirect taxes on sales

Relates to assessments issued by the Brazilian Internal Revenues Service concerning certain credits taken by the Company when calculating those indirect taxes on sales. The estimated financial effect of this contingent liability is USD 3,452 (2023: USD 4,272).

Value-added tax on sales
Relates to assessments issued by the tax authorities of the State of Minas Gerais concerning the following:

- Incidence of value-added tax on sales of certain energy contracts. The estimated financial effect of this contingent liability is USD 15,410 (2023: USD 20,903).
- The Company was challenged by the tax authorities regarding certain credits to the purchases of property, plant and equipment. The estimated financial effect of this contingent liability is USD 6,610 (2023: USD 8,052).

(ii) Comments on contingent labor liabilities

Include several claims filed by former employees, third parties and labor unions and labor public attorney's office mostly claiming the payment of indemnities related to dismissals, such as overtime, work at night hours, commuting hours, health hazard premiums and hazardous duty premiums, as well as indemnity claims by former employees and third parties based on alleged occupational illnesses, work accidents and payment of social benefits. The individual amount of the claims is not material.

(iii) Comments on contingent civil liabilities

The civil proceedings identified as potential contingent liabilities are related to indemnity lawsuits filed against the Company, alleging property damages, contractual breaches, personal injuries, consequential damages, loss of prospective earnings, and other general losses. The estimated financial effect of this contingent liability is USD 17,821 (2023: USD 12,823).

(iv) Comments on contingent environmental liabilities

The main contingent environmental liabilities in Brazil were filed by fishermen communities against the Company for indemnification, compensation for material and moral damages due to alleged pollution of the São Francisco River close to the Company's Três Marias operation in Brazil. The estimated financial effect of these contingent liabilities is USD 93,634 (2023: USD 85,399).

29 Contractual obligations

Accounting policy

Contractual obligations consist of advance payments received by the Company under a silver streaming agreement, signed with a counterparty (the "Streamer") and by which referential silver

contents found in the ore concentrates produced by the Company's Cerro Lindo mining unit are sold to the Streamer.

Determining the accounting treatment of silver streaming transactions requires the exercise of high degree of judgment.

The Company assesses whether those advances obtained under this agreement should be recognized as contractual obligations (a sale of a non-financial item) or as a financial liability. For that purpose, the Company takes into consideration factors such as which party is exposed to the operational risk, the risk of access to the resources, the price risk, and assesses whether the transaction involves a sale of an own use asset for the counterparty. In those cases, in which the Company concludes that, in essence, the Streamer shares substantially the operational risks, the resource access and price risks, it delivers a non-financial item that qualifies as an "own use" item; any advance payment obtained is recognized as a contractual obligation in the framework of IFRS 15: Revenue from contracts with customers. Otherwise, the Company would recognize a financial liability in the framework of the provisions of IFRS 9: Financial instruments.

When a contractual obligation is recognized, the balance is initially recognized at the amount received, and it is subsequently recognized as revenue when the control of the respective assets is transferred, that is, upon the physical delivery of the nonfinancial item (silver certificate). Contractual obligations are recognized within non-current liabilities, except for the portion of silver certificates that are estimated to be delivered over the 12 months following the balance sheet date.

The advance payment obtained under the silver streaming transaction entered by the Company in 2016 is recognized as contractual obligation to the extent that the risk assessment conducted by management indicates the relevant risks are substantially shared with the Streamer and the qualifying conditions of a sale of an "own use" item are met.

The advance payment was recognized as a Contractual obligation and the corresponding revenues are recognized as the silver is delivered, which is the time that the contractual performance obligations are satisfied. The Company delivers the certificates as the silver contents of its concentrate sales are collected from its customers that buy ore concentrates.

The recognition of interest on contractual obligation is based on the opening balance of the year of the contractual obligations applying a market rate percent, representing the effect of passage of time over the length of the Metal Purchase Agreement.

Determination of the transaction price

The transaction price is the amount of consideration to which the Company expects to be entitled in return for transferring the promised goods to its counterparty. The transaction price is allocated to each performance obligation based on the relative standalone selling prices. In the silver streaming transaction, the Company has variable considerations related to the production capacity of the mine linked to its LOM and to the LME. IFRS 15 requires that for contracts containing variable considerations, the transaction price be continually updated and re-allocated to the transferred goods. For this purpose, the contractual obligations require an adjustment to the transaction price per unit each time there is a change in the underlying production profile of a mine or the expected metal prices. The change in the transaction price per unit results in a retroactive adjustment to revenues in the period in which the change is made, reflecting the new production profile expected to be delivered under the streaming agreement or the expected metal prices. A corresponding retroactive adjustment is made to accretion expenses, reflecting the impact of the change in the contractual obligation balance.

Critical accounting estimates, assumptions and judgments

The recognition of revenues and of the contractual obligation related to the silver transaction require the use of critical accounting estimates and assumptions including, but not limited to: (i) allocation of revenues on relative prices; (ii) estimate prices for determining the upfront payment; (iii) discount rates used to measure the present value of future inflows and outflows; and (iv) estimates of LOM, reserves and mineral production.

(a) Composition

In 2016, the Company entered a silver streaming arrangement for the anticipated sale of a portion of the silver contained in the ore concentrates produced by the Cerro Lindo mining unit, which consisted of i) an upfront payment of USD 250,000 and ii) additional payments at the date of each delivery of the ounces of payable silver equivalent to 10% of the spot price at the date of settlement. In addition, by this agreement, sales of silver certificates to Triple Flag are limited to a total of 19.5 million of the ounces that Nexa Peru sells to its customers. Once that limit is reached, sales under the streaming will be made for 25% of the silver content in the Nexa Peru's sales of concentrate for a period equivalent to the life of said mining unit.

The changes in the contractual obligation are shown below:

	2024	2023
Balance at the beginning of the year	**117,112**	**132,160**
Revenues recognition upon ore delivery	(43,662)	(30,498)
Remeasurement adjustment (i)	21,084	10,121
Interest on contractual obligations - note 10	6,424	5,329
Balance at the end of year	**100,958**	**117,112**
Current	31,686	37,432
Non-current	69,272	79,680

(i) In September 2024, the Company recognized a remeasurement adjustment in its contractual obligations of silver streaming with a corresponding reduction in revenues for an amount of USD 21,084, respectively, and an increase in accretion for an amount of USD 5,153 (in 2023: reduction in revenues for an amount of USD 10,121 and an increase in accretion for an amount of USD 1,219), given the higher long-term prices and the updated mine plan for its Cerro Lindo Mining Unit. According to the Company's silver streaming accounting policy, prices and changes in the LOM given an update in mine plans are variable considerations and the recognized revenue under the streaming agreement should be adjusted to reflect the updated variables.

30 Shareholders' equity

Accounting policy

Common shares are classified in shareholders' equity. Each time a share premium is paid to the Company for an issued share, the respective share premium is allocated to the share premium account. Each time the repayment of a share premium is decided, such repayment shall be done pro-rata to the existing shareholders.

The distribution of dividends to the Company's shareholders is recognized as a liability in the Company's consolidated financial statements in the period in which the dividends are approved by the Company's shareholders.

Shares repurchased under buyback programs that are not cancelled, are reported as treasury shares and are deducted from shareholders' equity. These shares are also deducted in the earnings per share calculation.

(a) Capital

As of December 31, 2024, the outstanding capital of USD 132,438 (2023: USD 132,438) is comprised of 132,438 thousand subscribed and issued common shares (2023: 132,438 thousand), with par value of USD 1.00 per share. In addition to the subscribed and issued common shares, NEXA also has an authorized, but unissued and unsubscribed share capital set at USD 231,925.

Treasury shares

On June 4, 2020, at NEXA's Extraordinary General Meeting ("EGM"), the Company's shareholders approved the cancellation of the 881,902 shares held in treasury, purchased based on a share buyback program in prior years. For this reason, after the cancellation that occurred on June 4, 2020, VSA holds 64.68% of NEXA's equity.

(c) Share premium

The share premium, if any, may be distributed to the shareholders in accordance with Luxembourg Commercial Companies Act by a resolution of the Board of Directors.

(d) Additional paid-in capital

Additional paid in capital arises from transactions recognized in equity that do not qualify as capital or share premium in accordance with Luxembourg Commercial Companies Act and, therefore, cannot be distributed to the shareholders of the Company.

Accumulated other comprehensive income

The changes in the accumulated other comprehensive income are as follows:

	Cumulative translation adjustment	Hedge accounting	Changes in fair value of financial instruments	Total
At January 01, 2022	**(337,340)**	**1,593**	**(10,948)**	**(346,695)**
Translation adjustment on foreign subsidiaries	64,460	-	-	64,460
Cash flow hedge accounting, net of income tax	-	(331)	-	(331)
Changes in fair value of financial liabilities related to changes in the Company's own credit risk	-	-	343	343
Changes in fair value of investments in equity instruments	-	-	(3,608)	(3,608)
At December 31, 2022	**(272,880)**	**1,262**	**(14,213)**	**(285,831)**
Translation adjustment on foreign subsidiaries	81,413	-	-	81,413
Cash flow hedge accounting, net of income tax	-	(537)	-	(537)
Changes in fair value of financial liabilities related to changes in the Company's own credit risk	-	-	(385)	(385)
Changes in fair value of investments in equity instruments	-	-	(1,466)	(1,466)
At December 31, 2023	**(191,467)**	**725**	**(16,064)**	**(206,806)**
Translation adjustment on foreign subsidiaries	(184,446)	-	-	(184,446)
Cash flow hedge accounting, net of income tax	-	109	-	109
Changes in fair value of financial liabilities related to changes in the Company's own credit risk	-	-	(1,037)	(1,037)
Changes in fair value of investments in equity instruments	-	-	(1,256)	(1,256)
At December 31, 2024	**(375,913)**	**834**	**(18,357)**	**(393,436)**
Attributable to NEXA's shareholders				(335,565)
Attributable to non-controlling interests				(57,871)

(f) Earnings per share

Basic earnings per share are computed by dividing the net income attributable to NEXA's shareholders by the average number of outstanding shares for the year. Diluted earnings per share is computed in a similar way, but with the adjustment in the denominator when assuming the conversion of all shares that may be dilutive. The Company does not have any potentially dilutive shares and consequently the basic and diluted earnings per share are the same.

	2024	2023	2022
Net (loss) income for the year attributable to NEXA's shareholders	(205,030)	(291,968)	49,695
Weighted average number of outstanding shares – in thousands	132,439	132,439	132,439
Earnings (losses) per share - USD	**(1.55)**	**(2.20)**	**0.38**

(g) Dividend distribution

On April 30, 2024, Pollarix's shareholders approved an additional dividend distribution to its shareholders for the 2023 fiscal year. Nexa BR will receive USD 3,018 (BRL 15,741 thousands) for its common shares, while the non-controlling interest, which holds preferred shares, will receive USD 11,654 (BRL 60,778 thousands). Pollarix has made a first payment on June 24, 2024, in the amount of USD 4,327 (BRL 22,567 thousands) and a second payment on September 27, 2024, in the amount of USD 6,891 (BRL 38,212 thousands). Both payments were made in cash to the non-controlling interest.

On December 16, 2024, Pollarix's Board of Directors approved an early distribution of dividends to its shareholders for the 2024 fiscal year. Nexa BR will be entitled to receive USD 1,239 (BRL 7,239 thousands) for common shares and the non-controlling interest will be entitled to receive USD 4,784 (BRL 27,951 thousands) for preferred shares. On December 17, 2024, Pollarix made a partial cash payment of these dividends to non-controlling interest, in the amount of USD 3,398 (BRL 19,857 thousands).

On April 22, 2024, Enercan's Board of Directors approved an additional dividend distribution to its shareholders related to the 2023 fiscal year, entitling the Company's subsidiary Pollarix S.A. ("Pollarix") to receive USD 23,319 (BRL 120,072 thousands). Pollarix received a first payment on May 24, 2024, in the amount of USD 9,683 (BRL 50,497 thousands), a second payment on August 22, 2024, in the amount of USD 6,475 (BRL 35,909 thousands), and a third payment on December 5, 2024, in the amount of USD 5,762 (BRL 33,665 thousands). All payments were made in cash from the outstanding amount of the dividend distribution.

On December 23, 2024, Enercan's Board of Directors approved an early distribution of dividends to its shareholders for the 2024 fiscal year, entitling the Company's subsidiary Pollarix S.A. ("Pollarix") to receive USD 3,265 (BRL 19,077 thousands). On December 23, 2024, Pollarix received the payment in the amount of USD 3,265 (BRL 19,077 thousands).

Additionally, on March 27, 2024, Nexa Resources Peru S.A.A approved the distribution and payment of dividends in the amount of USD 5,549, related to the 2023 profits, Nexa CJM was entitled to receive USD 4,636 for its shares, while the non-controlling interest, and amount of USD 913. On July 12, 2024 Nexa Peru made a cash payment of these dividends to non-controlling interest, in the amount of USD 913.

(h) Non-controlling interests

Summarized balance sheet	NEXA PERU		Pollarix S.A.	
	2024	2023	2024	2023
Current assets	840,727	581,466	21,597	12,283
Current liabilities	381,329	292,067	8,169	11,734
Current net assets	**459,398**	**289,399**	**13,428**	**549**
Non-current assets	1,176,393	1,361,412	53,843	73,312
Non-current liabilities	422,555	385,208	11,099	9,421
Non-current net assets	**753,838**	**976,204**	**42,744**	**63,891**
Net assets	**1,213,236**	**1,265,603**	**56,172**	**64,440**
Accumulated non-controlling interests	205,102	207,966	42,569	46,747

Summarized income statement	NEXA PERU		Pollarix S.A.	
	2024	2023	2024	2023
Net revenues	881,122	735,337	27,919	11,740
Net (loss) gain for the year	(41,999)	12,491	28,959	13,700
Other comprehensive (loss) income	-	-	(14,886)	5,606
Total comprehensive income for the year	**(41,999)**	**12,491**	**14,073**	**19,306**
Comprehensive (loss) income attributable to non-controlling interests	(5,229)	(9,206)	15,026	14,261
Dividends paid to non-controlling interests	**5,938**	**124**	**14,616**	**23,589**

Summarized statement of cash flows	NEXA PERU		Pollarix S.A.	
	2024	2023	2024	2023
Net cash provided by (used in) operating activities	253,005	206,163	(11,615)	(5,189)
Net cash used in investing activities	(108,517)	(226,991)	2,130	36,993
Net cash (used in) provided by financing activities	(23,800)	(3,604)	13,783	(32,185)
(Decrease) increase in cash and cash equivalents	**120,688**	**(26,145)**	**4,298**	**(381)**

On November 18, 2024, Nexa Atacocha's General Shareholders Meeting approved a capital increase of up to USD 37,000 to finance the development of the Cerro Pasco Integration Project with the issuance of up to 2,182,866 thousands shares (1,203,513 class A and 979,353 class B thousands shares).

On November 29, 2024, Nexa El Porvenir acquired a total of 35,917 thousand class A common shares of Nexa Atacocha (representing a 3.80% stake) at a purchase price of USD 0.0239 and USD 0.0084 respectively. The carrying value at the acquisition date was USD 12,629. As a result, the Company de-recognized the non-controlling interest, recording a decrease in equity attributable to owners of the controlling interest of USD 1,871.

In December 2024, Nexa El Porvenir paid USD 31,174 for the acquisition of Atacocha's 1,537,189 thousand shares (1,178,166 thousand class A common shares and 359,023 thousand class B common shares) representing 16.23% stake, at a purchase price of USD 0.0239 and USD 0.0084 respectively. As a result, the Company de-recognized the non-controlling interest, recording a decrease in equity attributable to owners of the controlling interest of USD 2,765.

Consequently, as of December 31, 2024, the Company acquired a total of 1,573,107 thousand shares (representing a 20.03% stake) and recorded a total decrease in equity attributable to owners of the controlling interest for a total amount of USD 4,635 in the year 2024.

31 Impairment of long-lived assets

Accounting policy

Impairment of goodwill

As part of the impairment testing procedures, the goodwill arising from a business combination is allocated to a CGU or groups of CGUs that are expected to benefit from the related business combination and is tested at the lowest level that goodwill is monitored by management. Goodwill is tested annually for impairment, regardless of whether there has been an impairment indicator or, more frequently, if circumstances indicate that the carrying amount may not be recovered.

Impairment of long-lived assets

The Company assesses at each reporting date, whether there are indicators that the carrying amount of an asset or CGU, including goodwill balance, may not be recovered. If any indicator exists, such
as a change in forecasted commodity prices, a significant increase in operational costs, a significant decrease in production volumes, a reduction in LOM, the cancelation or significant reduction in the scope of a project, foreign exchange rate, market conditions or unusual events that can affect the business, the Company estimates the recoverable amount of the assets or CGUs.

The recoverable amount is estimated by reference to the higher of an assets or CGUs fair value less cost of disposal ("FVLCD") and its value in use ("VIU"). The recoverable amount is determined for an individual asset unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets, in which case, the asset is tested as part of a larger CGU to which it belongs.

If the carrying amount of an asset or CGU exceeds its recoverable amount, the asset or CGU is considered impaired and is reduced to its recoverable amount. Non-financial assets other than goodwill that were adjusted due to impairment are subsequently reviewed for possible reversal of the impairment at each reporting date. Generally, the opposite of indicators that gave rise to an impairment loss would be considered indicators that impairment losses might have to be reversed. If the underlying reasons for the original impairment have been removed or the service potential of the asset or CGU has increased, an assessment of impairment reversals is performed by the Company. Reversals of impairment losses that arise simply from the passage of time or related with prior goodwill impairments are not recognized.

For individual assets, if there is any indicator that an asset become unusable by damage or a decision that would lead the asset to not contribute economically to the Company, it is impaired. In addition, greenfield projects for which the Company decides to quit exploration and there is no expectation that in the future will bring cash inflows are also impaired.

Impairment of exploration and evaluation costs and development projects costs

Exploration assets (greenfields) representing mineral rights acquired in business combinations, mineral rights, and other capitalized exploration and evaluation costs, as well as development projects costs capitalized included in Property, plant and equipment are tested for impairment individually or allocated in aggregation with CGU or groups of CGUs that include producing assets, when applicable, through FVLCD when there are indicators that capitalized costs might not be recoverable. The allocation of exploration and evaluation costs, and development project costs to CGUs or group of CGUs is based on 1) expected synergies or share of producing assets infrastructure, assets and/or processing facilities 2) legal entity level, and 3) country level. When testing a CGU or a group of CGUs that include exploration and evaluation costs and development project costs, the Company performs the impairment test in two steps. In the first step, producing assets or group of producing assets, and exploration and evaluation costs and development projects costs that are not expected to share infrastructure assets are tested for impairment on an individual basis. In the second step, exploration and evaluation costs and development project costs that shared infrastructure assets and/or processing facilities are allocated to a CGU or a group of CGUs and tested for impairment on a combined basis.

Valuation methods and assumptions for recoverable amount based on FVLCD

FVLCD

FVLCD is an estimate of the price that the Company would receive to sell an asset, CGU or group of CGUs in an orderly transaction between market participants at the measurement date, less the cost of disposal. FVLCD is not an entity-specific measurement but is focused on market participants' assumptions for a particular asset when pricing the asset. FVLCD is estimated by the Company using discounted cash flows techniques (using a post-tax discount rate) and market past transaction multiples (amount paid per ton of minerals for projects in similar stages) for greenfield projects for which resources allocation is under review, although the Company considers observable inputs, a substantial portion of the assumptions used in the calculations are unobservable. These cash flows are classified as level 3 in the fair value hierarchy. No CGUs are currently assessed for impairment by reference to a recoverable amount based on FVLCD classified as level 1 or level 2.

VIU

VIU is determined as the present value of the estimated future cash flows expected to arise from the continued use of the asset in its current condition and its residual value. VIU is determined by applying assumptions specific to the Company's continued use and does not consider enhancements or future developments. These assumptions are different from those used in calculating FVLCD and consequently the VIU calculation is likely to give a different result (usually lower) than a FVLCD calculation. Additionally, it is applied to the estimated future cash flows a pre-tax discount rate.

Forecast assumptions

The cash flow forecasts are based on management's best estimates of expected future revenues and costs, including the future cash costs of production, capital expenditure, and closure, restoration, and environmental costs. The resulting estimates are based on detailed LOM and long-term production plans. When calculating FVLCD, these forecasts include capital and operating expenditures related to expansions and restructurings of both brownfield and greenfield projects that a market participant would consider in seeking to obtain the highest and best use of the asset, considering their evaluation, eventual changes in their scope or feasibility, and their development stage.

The cash flow forecasts may include net cash flows expected to be realized from the extraction, processing and sale of material that does not currently qualify for inclusion in ore reserves. Such non-reserve material is only included if the Company has a high level of confidence that it will be converted to reserves. This expectation is usually based on preliminary drilling and sampling of areas of mineralization that are contiguous with existing ore reserves, as well as on the historical internal conversion ratio. Typically, the additional evaluation required for conversion to reserves of such material has not yet been done because this would involve incurring evaluation costs earlier than is required for the efficient planning and operation of the producing mine.

For purposes of determining FVLCD from a market participant's perspective, the cash flows incorporate management's internal price forecasts that also reflects the view of market participants. The internal price forecasts are developed using a robust model that incorporates market-based supply, demand and cost data. The internal price forecasts used for ore reserve estimation testing and the Company's strategic planning are generally consistent with those used for the impairment testing.

Cost levels incorporated in the cash flow forecasts are based on the current LOM plan and long-term production plan for the CGU, which are based on detailed research, analysis and iterative modeling to optimize the level of return from investment, output and sequence of extraction. The mine plan considers all relevant characteristics of the orebody, including waste-to-ore ratios, ore grades, haul distances, chemical and metallurgical properties of the ore, process recoveries and capacities of processing equipment that can be used. The LOM plan and long-term production plans are, therefore, the basis for forecasting production output and production costs in each future year.

The discount rates applied to the future cash flow forecasts represent the Company's estimate of the rate that a market participant would apply to the time value of money and the risks specific to the asset for which the future cash flow estimates have not been adjusted. The Company's weighted average cost of capital is generally used for determining the discount rates, with appropriate adjustments for the risk profile of the countries in which the individual CGUs operate.

With respect to the estimated future cash flows of capitalized exploration assets and development projects, for some assets the Company applies a price to net assets value ratio discount in order to reflect the inherent risk of such projects and that are neither adjusted in the discount rate nor in the future cash flows. The discount is based on the stage of the project and the type of metal.

Critical accounting estimates, assumptions and judgments - Impairment of long-lived assets

Impairment is assessed at the CGU level. A CGU is the smallest identifiable asset or group of assets that generates independent cash inflows. Judgment is applied to identify the Company's CGUs, particularly when assets belong to integrated operations, and changes in CGUs could impact impairment charges and reversals.

External and internal factors are quarterly monitored for impairment indicators. Judgment is required to determine, for example, whether the impact of adverse spot commodity price movements is significant and structural in nature. Also, the Company's assessment of whether internal factors, such as an increase in production costs and delays in projects, result in impairment indicators requires significant judgment. Among others, the long-term zinc price, foreign exchange rate considering Brazilian real (BRL) per US dollar (USD) for Brazilian operations, and the discount rate may have a significant impact on the Company's' impairment estimations.

The process of estimating the recoverable amount involves the use of assumptions, judgment and projections for future cash flows. These calculations use cash flow projections based on financial and operational budgets for a five-year period. After the five-year period, the cash flows are extended until the end of the useful LOM or indefinitely for the smelters. The smelters cash flows do not use growth rates in the cash flow projections of the terminal value. Management's assumptions and estimates of future cash flows used for the Company's impairment testing of goodwill and long-lived assets are subject to risk and uncertainties, including metal prices and macroeconomic conditions, which are particularly volatile and partially or totally outside the Company's control. Future changes in these variables may differ from management's expectations and may materially change the recoverable amounts of the CGUs.

Impairment test analysis

Throughout 2024, the Company, at each reporting date, assessed whether there were indicators that the carrying amount of an asset, goodwill, or cash generation unit (CGU) might not be recoverable, or if a previously recorded impairment needed to be reversed for its entire CGU located in Brazil and Peru.

Goodwill assessment

The goodwill, included in "*intangible assets*", has a balance of USD 206,423. In the third quarter of 2024, Nexa conducted its annual impairment test for the CGUs to which goodwill has been previously allocated including Mining Peru group of CGUs (Composed of Cerro Pasco and Cerro Lindo CGUs), Cajamarquilla and Juiz de Fora in accordance with the assumptions and projections outlined in the Company's strategic planning process. As a result, no impairment was identified.

Peruvian CGU

In the third quarter of 2024, the Company identified indicators of reversal, primarily driven by the increase of short-term and long-term metal prices. As a result, an impairment reversal for USD 22,206 was recognized at the CGU Cerro Pasco.

Magistral Project assessment

In the second quarter of 2024, because of the rejection of the Company's Modification of the Environmental Impact Assessment (MEIA) described in Note 32 (a), in June 2024, the Magistral Project was tested for impairment resulting in a loss of USD 58,435, recognized in profit or loss. The recoverable amount was determined using the fair value less cost of disposal (FVLCD), based on market past transaction multiples (amount paid per ton of minerals for projects in similar stages).

Pukaqaqa Project assessment

In the second quarter of 2024, Nexa´s management analyzed alternatives for the sale of Pukaqaqa mining project, part of Nexa Peru´s portfolio and in the third quarter of 2024 the Company signed a purchase and sale agreement to sell the Compañía Minera Cerro Colorado S.A.C. owner of the greenfield Pukaqaqa Project. This triggered an impairment assessment as the project's assets had been fully impaired based on the 2022 impairment evaluation.

The Company considered the most recent negotiation with the third-party to calculate the fair value less cost of disposal, considering the sales price and other obligations defined in the offer.

The sale transaction was completed on November 22, 2024 (as further described in Note 1 (a)) and the Company recorded an impairment reversal of USD 3,978 for the year.

Compañía Minera Shalipayco S.A.C.

In June 2024, the Compañía Minera Shalipayco S.A.C. (the joint operation between Nexa and PAS) decided not to renew the rights for the mining concessions of the Shalipayco project. As a result of this decision, it was agreed to commence the dissolution process of said Company after unsuccessful attempts to find a potential buyer. This investment project in Nexa Peru was impaired in 2022 as part of Nexa's portfolio review. Consequently, no further material adjustment has been recognized in the year.

Morro Agudo CGU

In the first quarter of 2024, Nexa received a binding sale offer from a third party for Morro Agudo CGU. The sale transaction was completed on July 1, 2024 (as further described in Note 1 (a)), and the Company recorded an impairment reversal of USD 10,291 for the year.

Aripuanã CGU

The Company tested Aripuanã CGU after identifying impairment indicators related to (i) a devaluation of the exchange rate of BRL/USD; and (ii) an increase in operational costs for Aripuanã. No impairment was identified after the impairment assessment.

For the quarter ended on December 31, 2024, the Company did not identify any additional impairment trigger for the goodwill and UCGs mentioned above.

Impairment test summary

In summary, for the year 2024, Nexa recognized the following impairment loss/reversal:

Impairment (losses) reversals	2024	2023
Magistral Project	(58,435)	-
Cerro Pasco CGU	22,206	(42,660)
Morro Agudo	10,291	(59,002)
Pukaqaqa Project	3,978	-
Others individual assets	(10,910)	(12,976)
Total	**(32,870)**	**(114,643)**

(a) Key assumptions used in impairment tests

The recoverable amounts for each CGU were determined based on the FVLCD method, which were higher than those determined based on the VIU method.

The Company identified long-term metal prices, discount rate, exchange rate considering Brazilian real (BRL), and LOM as key assumptions in determining the recoverable amounts, due to the material impact such assumptions may have on the recoverable value. Part of these assumptions are summarized below:

	2024	2023	2022
Long-term zinc price (USD/t)	2,930	2,800	2,787
Discount rate (Peru)	7.08%	7.22%	6.93%
Discount rate (Brazil)	7.64%	8.02%	8.03%
Exchange rate (BRL x USD)	5.66	4.84	5.22
Brownfield projects - LOM (years)	From 3 to 25	From 4 to 21	From 5 to 24

(b) Impairment reversal – Cerro Pasco CGU

As mentioned above, the impairment reversal was identified at the CGU level, not being directly related to a single asset. Then, the gain was allocated on a pro rata basis to the following assets:

	Carrying amount prior to impairment reversal	Impairment reversal	Carrying amount after impairment reversal
Property, plant and equipment	223,788	12,400	236,188
Intangible assets	176,967	9,806	186,773
Other net liabilities	(114,152)	-	(114,152)
	286,603	**22,206**	**308,809**

The Company performed a stress test on the key assumptions used for the calculation of the recoverable amount of the CGU Cerro Pasco. A decrease of 5% in the long-term LME zinc price to USD 2,784 per ton compared to management's estimation as of September 30, 2024, would have resulted in an impairment loss of USD 39,292 (or an impairment loss addition of USD 61,498). Also, an increase of 5% in the discount rate compared to management's estimation, would have resulted in an impairment reversal of USD 14,932 (or a decrease in the impairment reversal of USD 7,274).

(c) Sensitivity analysis –Tested CGUs and Cajamarquilla Goodwill

The Company estimated the amount by which the value assigned to the key assumptions must change in order for the assessed CGU recoverable amount, which was not impaired, to be equal to its carrying amount:

CGU	Excess over recoverable amount	Decrease in Long term Zinc (USD/t)		Increase in WACC		Appreciation of BRL over USD (i)	
		Change	Price	Change	Rate	Change	Price
Juiz de fora	146,341	(23.33%)	2,246	71.13%	13.08%	(13.00%)	4.92
Cajamarquilla	681,438	(20.01%)	2,344	94.42%	13.77%	-	-
Cerro Lindo	269,150	(24.81%)	2,203	169.19%	19.07%	-	-
Mining Peru	82,740	(7.43%)	2,712	38.35%	9.80%	-	-
Aripuanã	305,093	(15.43%)	2,478	56.34%	11.95%	(13.88%)	4.87

(i) This analysis is only applicable to Juiz de Fora and Aripuanã CGUs, as these are in Brazil and their functional currency are BRL. Therefore, the appreciation of BRL over USD impacts the operational cost and expense, reducing the recoverable amount of these CGUs in USD, for consolidated purposes.

32 Long-term commitments

(a) Projects evaluation

On February 8, 2024, the Peruvian Government approved an extension of the deadline for the Accreditable Investment Commitment under the Magistral Transfer Contract from September 2025 to August 2028. As of December 31, 2024, the unexecuted Accreditable Investment Commitment was USD 323,000, and if not completed by August 2028, the potential penalty exposure could be USD 97,029.

In December 2021, the Company submitted a request for the Modification of the Environmental Impact Assessment (MEIA) for the Magistral Project to the National Environmental Certification Agency (SENACE), through the applicable legal process. During the approval process, the Peruvian Water Authority (ANA) and the Protected Natural Areas Service - (SERNANP) raised unfavorable observations. On May 24, 2024, SENACE formally rejected the MEIA (refer to note 31 for further information on the impairment test).

According to the contract, the Company is currently in direct negotiations with the relevant authorities to discuss the impact of this situation on the Project's execution and expects to reach a solution in the coming months.

(b) Environmental Guarantee for Dams

On December 30, 2023, Minas Gerais State published Decree 48,747 of 2023, which regulated the requirement for an environmental guarantee as provided for in Law 23,291 of February 25, 2019 (the State Policy for Dam Safety). This guarantee aims to ensure environmental recovery in the event of an accident or deactivation of dams and applies to all dams with the characteristics established by the law.

During the second quarter of 2024, the Decree was amended to modify, among other provisions, the deadline for mining companies to indicate the type(s) of guarantee method(s) they would use. The Company complied with this requirement in September 2024. The amendment also established that mining companies must present 50% of the chosen guarantees by the end of 2024.

Nexa's obligation is to provide a guarantee in the amount of approximately USD 19,122 (BRL 118,411 thousand). On December 27, 2024, the Company provided 50% of the required guarantees, totaling approximately USD 9,561 (BRL 56,206 thousand), for all its structures in Minas Gerais through bank guarantees. The Company plans to provide an additional 25% by the end of December 2025 and the final 25% by the end of 2026, following the schedule previously established by the Decree.

However, on December 31, 2024, a new Decree was published, further amending the wording of Decree 48,747/2023. This amendment stipulated that the deadline for submitting guarantees would only begin after the environmental agency approves the proposal. Since the new Decree was published after Nexa submitted its guarantees, it will be necessary to await the environmental agency's analysis and address any adjustments required under the revised wording.

33 Events after the reporting period

(a) Capital increase

On January 15, 2025, the subscription and payment process for the shares of the capital increase through new monetary contributions by Nexa Atacocha, as approved by the General Shareholders' Meeting on November 18, 2024, was completed. As a result, 100% of the Class A shares and Class B shares, which represent 1,203,513,164 and 979,353,191 respectively, were subscribed. Consequently, Nexa's percentage of shares in Nexa Atacocha changed to 82.08%.

(b) Brazilian tax reform

On January 16, 2025, Complementary Law No. 214 was published, regulating the Brazilian tax reform on consumption. The reform introduced significant changes to the Brazilian tax system, aiming to simplify collection, reduce bureaucracy, and promote greater tax justice. Among the main changes are the creation of the CBS (Contribution on Goods and Services) and the IBS (Tax on Goods and Services), a dual VAT model that will replace the current PIS, COFINS, IPI, ICMS, and ISS taxes. The transition to the new system will begin in 2026, in a staggered manner, with full implementation by 2033. The Company will begin the necessary adjustments to its processes in 2025 to comply with the new requirements and deadlines, as well as adjust its accounting estimates that will be impacted. Consequently, there is no effect of the Reform on the financial statements as of December 31, 2024.

(c) Other tax claim payments

In January 2025, the Company paid a total amount of USD 42,547 and is continuing legal processes either at the judicial or administrative levels regarding specific Peruvian uncertain income tax discussions. Such payments were placed before the courts, and a provision may be recorded against such amounts in the future if the likelihood of loss becomes probable or the payments could be recoverable in cash if the Company prevails in these discussions. These payments did not materially change the balances recorded and disclosed on December 31, 2024.

(d) Share premium reimbursement

On February 20, 2025, the Company's Board of Directors recommended, subject to approval by the Company's Annual General Meeting expected to be held on or around May 8, 2025, a cash distribution to the Company's shareholders of approximately USD 13,400 to be paid on June 24, 2025, as share premium reimbursement, in accordance with the dividend policy effective in January 2025.

..*

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of

Nexa Resources S.A.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Nexa Resources S.A. and its subsidiaries (the "Company") as of December 31, 2024 and 2023, and the related consolidated income statement, consolidated statement of comprehensive income, consolidated statement of changes in shareholders' equity and consolidated statement of cash flows for each of the three years in the period ended December 31, 2024, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2024, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2024 and 2023, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2024 in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2024, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the Management's Report on Internal Control over Financial Reporting appearing under Item 15. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Impairment Assessments – Goodwill and long-lived assets

As described in Notes 22 and 31 to the consolidated financial statements, the Company's goodwill balance was US$ 305,397 thousand as of December 31, 2024, comprised by the goodwill allocated to the following cash generating units (CGU): Cajamarquilla, in the amount of US$ 95,087 thousand, Juiz de Fora, in the amount of US$ 3,887 thousand and Mining Peru, in the amount of US$ 206,423 thousand. Management conducts a goodwill impairment test on an annual basis or, more frequently, if circumstances indicate that the carrying value of goodwill may be impaired. Management also evaluates impairment losses and reversals indicators for the long-lived assets, such as intangible, property plant and equipment and investments in associate companies. Potential impairment is identified by comparing the Fair Value Less Cost of Disposal (FVLCD) of a CGU to its carrying value, including goodwill, when applicable. Fair value is estimated by management using a discounted cash flow model or by market past transaction multiples. Management's cash flow projections included significant judgments and assumptions mainly related to long-term zinc price and discount rates. The goodwill impairment assessments resulted in no impairment losses. The Company has also tested for impairment the assets that showed indicators of impairment losses and the assets other than goodwill that showed any indication that an impairment loss either no longer exists or has decreased. As a result of these impairment tests, the Company recorded US$ 69,345 thousand of impairment losses, mainly related to the Magistral Project, and recorded US$ 36,475 thousand of impairment reversals related to the Cerro Pasco and Morro Agudo CGUs and the Pukaqaqa Project.

The principal considerations for our determination that performing procedures relating to impairment assessments of the goodwill and long-lived assets is a critical audit matter are (i) the significant judgment by management when developing the fair value estimates of the CGUs and individual assets; (ii) a high degree of auditor judgment, subjectivity, and effort in performing procedures and evaluating management's significant assumptions related to long-term zinc price and discount rates; and (iii) the audit effort included involving the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's impairment assessments, including controls related to the significant assumptions. These procedures also included, among others (i) assessing the Company's determination of its cash generating units; (ii) testing management's process for developing the fair value estimates; (iii) evaluating the appropriateness of the discounted cash flow model used by management; (iv) testing the completeness and accuracy of underlying data used in the discounted cash flow model; and (v) evaluating the reasonableness of the significant assumptions used by management related to long-term zinc price and discount rates. Evaluating management's assumptions related to long-term zinc price and discount rates involved evaluating whether the assumptions used by management were reasonable considering (i) the consistency with external market and industry data; and (ii) whether the assumptions were consistent with evidence obtained in other areas of the audit. Professionals with specialized skill and knowledge were used to assist in evaluating (i) the appropriateness of the discounted cash flow model and (ii) the reasonableness of the long-term zinc price and discount rates used.

/s/ PricewaterhouseCoopers Auditores Independentes Ltda.

Curitiba, Brazil

February 20, 2025

We have served as the Company's auditor since 2001.