

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Since our founding in 1941, Companhia Brasileira de Alumínio (CBA) has produced aluminum using a responsible approach to our impacts on the environment and society. We are a publicly traded company, listed in an enhanced governance (Novo Mercado) segment of the Brazilian stock exchange, and a member of Brazilian conglomerate Votorantim S.A. CBA is the only vertically integrated aluminum producer in Brazil, and one of the few in the world, with operations that span from bauxite mining to the production of a comprehensive portfolio of primary aluminum (ingots, slabs, billets and rod) and downstream products (sheets and coils, foils and extruded profiles). Our self-sufficient bauxite and alumina capacity, combined with vertical integration across the value chain and 100% renewable generation capacity for our electricity requirement, position us in the first quartile of the global aluminum cost curve. In addition to our primary aluminum operations, CBA is also a major player in recycling. Adding to our scrap processing capacity at Metalex, in 2022 we took over and integrated Alux do Brasil, expanding our operations in the secondary alloy segment. Sustainability and innovation are at the core of our strategy, and our low-carbon aluminum and ESG 2030 program are setting the standard for our industry. CBA's success over the years has been enabled by valuable partnerships with our employees, customers, suppliers, communities, investors and other business partners.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

Reporting year

Start date

January 1 2022

End date

December 31 2022

Indicate if you are providing emissions data for past reporting years

Yes

Select the number of past reporting years you will be providing Scope 1 emissions data for

4 years

Select the number of past reporting years you will be providing Scope 2 emissions data for

4 years

Select the number of past reporting years you will be providing Scope 3 emissions data for

3 years

C0.3

(C0.3) Select the countries/areas in which you operate.

Brazil

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

BRL

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C-MM0.7

(C-MM0.7) Which part of the metals and mining value chain does your organization operate in?

Row 1
Mining
Bauxite
Nickel
Processing metals
Aluminum
Alumina

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, a Ticker symbol	CBAV3

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual or committee	Responsibilities for climate-related issues
Chief Executive Officer (CEO)	The CBA CEO is a member of the Sustainability Committee and the Executive Sustainability Committee. He is responsible for approving projects and decisions related to climate change. For example, he participated in the construction and was responsible for approving the 2030 ESG Strategy, which provides for GHG reduction goals in 2020, approving the internal carbon pricing and the implementation in CAPEX projects and CBA's commitment to TCFD in December 2021. . In April 2022, he approved our science-based target proposal sent for SBTi approval. In June 2022, he approved the creation of digital passports with the inclusion of carbon footprint indicators for our products. In August 2022, he approved the advancement of the action plan and reporting of information aligned with the TCFD in a specific report, and CBA's participation in the TFND. He is also responsible for the approval of the Strategic Plan, which sustainability is one of the pillars, and CAPEX projects, all developed to high standards of sustainability and with contribution to mitigate climate emissions. This approval occurs every year.
Chief Financial Officer (CFO)	The CBA CFO also accumulates responsibilities of CRO, CIO and CCO. He is also a member of the Executive Sustainability Committee. His role in the Committee is to assess the risks and opportunities for sustainability, including climate issues, from a financial point of view. For example, he was responsible for approving CBA's participation in CDP due to the visibility of investors. He also participated in preparing and approving of the 2030 ESG Strategy in 2020, which provides for goals for GHG reduction goals, and was responsible for approval to buy RECs to neutralize our scope 2 emissions from use of electricity every year. The CFO is also responsible for approving financing and fundraising activities related to sustainability aspects. In 2022, one of the financial highlights from the year was a US\$ 96.5 million loan secured via bilateral transactions to finance exports. These facilities are classified as Sustainability-Linked Loans, since CBA set annual targets to reduce greenhouse gas emissions in primary aluminum production, reinforcing its commitment to fight against climate change and guarantee low-carbon aluminum supply for the market. In December 2022, CBA and Metalex secured loans worth a total of R\$ 611 million from the Brazilian Development Bank (BNDES). The proceeds from the loans will be used toward the Pot Room 3 restart, the Smelter technology upgrade at Alumínio (SP) and the recycling expansion at Metalex. We anticipate that the new pot feed system will help to reduce greenhouse gas emissions at the smelting stage, where aluminum oxide is converted into molten aluminum. The new technology will also improve energy and water savings, plant efficiency and safety. The project will generate estimated energy savings equivalent to the electricity consumption of 30,000 average homes. The recycling project at Metalex, in Araçariçuama (SP), will improve emissions performance by progressively increasing the amount of scrap used in producing aluminum. As the three projects provide environmental benefits, they all qualified for sustainability credit lines carrying lower interest rates and maturities of up to 20 years.
Chief Operating Officer (COO)	The CBA COO for processed aluminum products is also a member of the Executive Sustainability Committee. His role in the Committee is to assess sustainability risks and opportunities for operations and clients, including climate issues. For example, he was responsible for approving a carbon neutralization study on aluminum foil. In 2020, he also participated in preparing and approving the 2030 ESG Strategy, which provides for GHG reduction goals. In November 2022, he approved the creation of the Alennium seal, being one of the responsible parties for implementing the seal at CBA's clients.
Chief Procurement Officer (CPO)	The CBA CPO is also a member of the Executive Sustainability Committee. Her role is to assess sustainability opportunities and risks in the supply chain, including climate issues. For example, in 2020, she also participated in preparing and approving the 2030 ESG Strategy, which provides for GHG reduction goals. Also in 2020, she was responsible for approving the Sustainable Procurement Program that aims to commit our main suppliers on relevant issues, including climate change. In 2021, she approved the integration of ESG aspects into the homologation process, and one of the evaluated points is the supplier's maturity in the topic of climate change. In November 2022, CBA revised its supplier performance scorecard and expanded its supplier performance dashboard. The new method will be implemented in 2023 to assess suppliers across the Financial, Governance, Operational, Business Relations and ESG dimensions, which includes climate change performance. This method was approved by CBA CPO.
Other, please specify (Sustainability General Manager)	The Sustainability General Manager is responsible for defining relevant topics, scheduling meetings, supporting and monitoring decisions by the Executive Sustainability Committee. For example, he was responsible for adopting climate change guidelines for evaluation by the Executive Sustainability Committee, including advancement of carbon pricing studies in Brazil, internal approval of science-based targets and implementation of the ESG 2030 Strategy. The Sustainability Manager is responsible for analyzing new topics raised by the Executive Sustainability Committee and sharing with his team to evaluate and structure new sustainability projects and initiatives. The Sustainability General Manager is responsible for defining relevant topics, supporting and monitoring decisions by the Executive Sustainability Committee. For example, he was responsible for adopting climate change guidelines for evaluation by the Executive Sustainability Committee, including advancement of carbon pricing studies in Brazil, internal approval of science-based targets and implementation of the ESG 2030 Strategy. He is also responsible for representing CBA in forums and associations (IAI, global Compact, Abal) to address the climate change issues.
Other, please specify (Environmental Manager)	The Sustainability General Manager is responsible for defining relevant topics, supporting, and monitoring decisions by the Executive Sustainability Committee. He is also responsible for implementing the ESG Strategy, ensuring that the emissions reduction targets are met. For example, he is responsible for including advancement of carbon pricing studies in Brazil, implementing an internal carbon pricing in CBA, get the internal approval of science-based targets. He is also responsible for representing CBA in forums and associations (IAI, Global Compact, Abal) to address the climate change issues and understanding risks and opportunities for our sector.

Position of individual or committee	Responsibilities for climate-related issues
Other, please specify (Engineering and Technology Director)	The Engineering and Technology Director is also a member of the Executive Sustainability Committee. He is responsible for evaluating possible improvements that can be made through projects and innovation. For example, he is responsible for approving the inclusion of climate change issues when prioritizing projects. An example of this is a project to replace fuels in boilers, which will use biomass to replace natural gas and fuel oil. The new boiler system started operating in 2020. Since its operation, obtained approximately 60% decrease in Alumina Refinery emissions compared to 2019. He is also responsible for implementing projects that contribute in reducing GHG emissions in CBA's operations and for seeking new technologies that contribute to achieving ESG 2030 Strategy goals.
Other, please specify (Casting General Manager)	The Casting General Manager is also a member of the Executive Sustainability Committee. He is responsible for the operational and primary aluminum client view on sustainability issues, including climate. For example, he is responsible for investments in a new scrap treatment line at the Metalex and Alumínio Units, with the aim of increasing use of scrap and reducing the carbon footprint from billets produced.
Other, please specify (Legal, Governance and Compliance Director)	The Legal, Governance and Compliance Director is also a member of the Executive Sustainability Committee. He is responsible for the legal aspects of decisions made by this board and supporting assessment of legal impacts by the company's activities in terms of sustainability matters and projects.
Other, please specify (Independent members)	The CBA Executive Sustainability Committee has three independent members. The first two are the director of the Votorantim Institute and the general manager of the Votorantim Reserves. They are responsible for an external view of relevant sustainability issues, including climate. For example, they have raised synergy opportunities for carbon neutralization in CBA's private reserves and in places where local communities enjoy social benefits. The last independent member is a Brazilian reference in Sustainability and is responsible for an external view in Committee discussions, benchmarks and transparency in CBA's activities.
Board-level committee	In 2021 the Sustainability committee was created, to operate on a permanent basis, to advise the Company's Board of Directors on the following issues, among others: (i) Recommend to the Board of Directors approval of the Sustainability strategy and objectives; (ii) Recommend to the Board of Directors approval of the GRI Annual Report; (iii) Evaluate, monitor and recommend improvement of policies involving the Company's sustainability issues to the Executive Board, and when applicable to the Board of Directors; and (iv) Meet any other sustainability demands as requested by the Board of Directors. The Committee consists of three members, including two independent members (one from the Board of Directors and one external member specializing in Sustainability). It has quarterly meetings to deliberate on key initiatives and projects related to the ESG 2030 Strategy, which includes a dedicated program for climate change. In 2022, the main decisions were: -Continuation of projects for carbon neutrality, such as REDD Cerrado and Reflora (June/22) -Approval of the materiality matrix and inclusion of the climate change theme as material (August/22) -Membership in TNFD and development of a specific document on CBA's climate agenda following the TCFD framework (August/22) -Review of the ESG 2030 Strategy, with the creation of a new specific program for Renewable Energy and three new commitments: "Public Management Support in mitigating and adapting to climate change"; "Diversify renewables capacity beyond hydro"; "Implement water stewardship initiatives to improve water security in partnership with stakeholders" (November/22) -Approval of the disclosure for the market of the Alennium label, which certifies CBA's low-carbon aluminum, and a digital passport that includes product carbon footprint indicators (November/22)
Chief Sustainability Officer (CSO)	The CBA organizational, human development, health, safety, environment and Sustainability director is a member of the sustainability executive committee and is responsible for the implementation and monitoring the ESG 2030 Strategy and themain sustainability projects (including those focused on climate change) that are and will be developed by the company. This representative participated in the approval of initiatives such as the climate adaptation project and the implementation of carbon pricing in December 2021. In 2022, approved the SBTi emission reduction target submission. In august 2022, she approved the advancement of the action plan and reporting of information aligned with the TCFD in a specific report, and CBA's participation in the TFND.
Other, please specify (Sustainability Executive Committee)	The committee is composed of members from the Executive Board (CEO, CFO, Downstream Products, Innovation and Digital Transformation VP, Primary Products VP, Supply Chain and Procurement VP, Legal, Governance and Compliance VP, HR and Sustainability VP, Energy business VP, Engineering and Technology VP, Sustainability General Manager and Environmental Manager) and three external members: the Director of Votorantim Reserves, the Director of Votorantim Institute, and a professional with recognized experience in Sustainability. With bi-monthly meetings, it is responsible for executing the ESG 2030 Strategy and recommending topics for deliberation by the Sustainability Committee, which advises the Board of Directors. The Executive Sustainability Committee is directly committed to climate change issues in the company. This Committee is responsible for approving policies and guidelines related to sustainability, social responsibility, and environmental preservation. In 2022, the main topics discussed in this committee were: - Approval of the emissions reduction target to be submitted for approval by SBTi (April/22) - Discussion on the results obtained in the CDP (April and December/22) - Progress of the Reflora project (April and December/22) - Discussion and continuation of studies on new technologies for greenhouse gas emissions reduction, such as inert anode (June/22) - Approval of the model and information to be provided in the digital passport, including carbon footprint indicators (June/22) - Results of the materiality study, which includes the topic of climate change (August/22) - Membership in TNFD and development of a specific document on CBA's climate agenda following the TCFD framework (August/22) - Review of the ESG 2030 Strategy, with the creation of a new specific program for Renewable Energy and three new commitments: "Public Management Support in mitigating and adapting to climate change"; "Diversify renewables capacity beyond hydro"; "Implement water stewardship initiatives to improve water security in partnership with stakeholders" (November/22) Results of the 2022 variable remuneration ESG goals, including the emissions reduction target

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Reviewing and guiding annual budgets Overseeing major capital expenditures Overseeing acquisitions, mergers, and divestitures Overseeing and guiding employee incentives Reviewing and guiding strategy Overseeing and guiding the development of a transition plan Monitoring the implementation of a transition plan Overseeing the setting of corporate targets Monitoring progress towards corporate targets Reviewing and guiding the risk management process	<Not Applicable>	The responsibility of addressing sustainability matters lies with the Sustainability Committee and the Executive Sustainability Committee, both of which prioritize emissions as a crucial topic for the company. Emissions are frequently on the agenda of these committees. The Sustainability Committee is responsible for advising the Board of Directors on the development and implementation of the Sustainability Strategy, which encompasses guidelines and actions concerning environmental, social, and governance issues. They play a vital role in integrating these dimensions and ensuring their effective management. The committee meets once every two months and includes at least one member who is a sustainability expert and one member of the Board. During these meetings, at least one ESG topic, including water-related goals, is discussed, and the goals and targets are evaluated biannually. In 2019, the Executive Sustainability Committee was established to support the definition and implementation of the sustainability strategy. Its main objectives are to secure commitment from the leadership team, ensure the integration of sustainability across different business areas, and address climate change-related matters. This committee convenes every two months and dedicates significant attention to ESG topics. They review and provide suggestions on action plans and ESG documents/assessments before seeking approval from the Board, benefiting from their expertise in the field. Furthermore, the committee plays a crucial role in engaging with shareholders and conveying important topics to them. Examples of their actions include approving the CBA ESG 2030 Strategy, proposing SBTi targets, implementing carbon pricing, and conducting climate change adaptability studies. In 2022, discussions revolved around themes such as for example ISE(B3), TCFD, our low carbon product brand "Alennium," and our products digital passports.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	Yes	CBA has an independent member with sustainability and climate change experience and considered a reference in the topic in the Brazilian market. As published in CBA's 2022 Annual Report, one of its members is also a member of the Advisory Board of Instituto Ethos and WRI Brasil (World Resources Institute), both of which are widely known for their involvement in water issues, natural resources in general and SDGs. As these are important positions in renowned institutions, the member's technical knowledge on water-related topics can be affirmed. This member is responsible for advising our Sustainability Committee and bringing improvement ideas by means of his market vision of best practices.	<Not Applicable>	<Not Applicable>

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Position or committee

Chief Executive Officer (CEO)

Climate-related responsibilities of this position

Managing climate-related acquisitions, mergers, and divestitures
Developing a climate transition plan
Integrating climate-related issues into the strategy
Setting climate-related corporate targets
Monitoring progress against climate-related corporate targets

Coverage of responsibilities

<Not Applicable>

Reporting line

Reports to the board directly

Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

Please explain

The CBA CEO is a member of the Sustainability Committee and the Executive Sustainability Committee. He is responsible for approving projects and decisions related to climate change. For example, he participated in the construction and was responsible for approving the 2030 ESG Strategy, which provides for GHG reduction goals in 2020, approving the internal carbon pricing and the implementation in CAPEX projects and CBA's commitment to TCFD in December 2021. . In April 2022, he approved our science-based target proposal sent for SBTi approval.
In June 2022, he approved the creation of digital passports with the inclusion of carbon footprint indicators for our products. In August 2022, he approved the advancement of the action plan and reporting of information aligned with the TCFD in a specific report, and CBA's participation in the TFND. He is also responsible for the approval of the Strategic Plan, which sustainability is one of the pillars, and CAPEX projects, all developed to high standards of sustainability and with contribution to mitigate climate emissions. This approval occurs every year.

Position or committee

Chief Financial Officer (CFO)

Climate-related responsibilities of this position

Managing annual budgets for climate mitigation activities
Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
Managing climate-related acquisitions, mergers, and divestitures
Managing climate-related risks and opportunities

Coverage of responsibilities

<Not Applicable>

Reporting line

Reports to the board directly

Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

Please explain

The CBA CFO also accumulates responsibilities of CRO, CIO and CCO. He is also a member of the Executive Sustainability Committee. His role in the Committee is to assess the risks and opportunities for sustainability, including climate issues, from a financial point of view. For example, he was responsible for approving CBA's participation in CDP due to the visibility of investors. He also participated in preparing and approving of the 2030 ESG Strategy in 2020, which provides for goals for GHG reduction goals, and was responsible for approval to buy RECs to neutralize our scope 2 emissions from use of electricity every year. The CFO is also responsible for approving financing and fundraising activities related to sustainability aspects. In 2022, one of the financial highlights from the year was a US\$ 96.5 million loan secured via bilateral transactions to finance exports. These facilities are classified as Sustainability-Linked Loans, since CBA set annual targets to reduce greenhouse gas emissions in primary aluminum production, reinforcing its commitment to fight against climate change and guarantee low-carbon aluminum supply for the market. In December 2022, CBA and Metalex secured loans worth a total of R\$ 611 million from the Brazilian Development Bank (BNDES). The proceeds from the loans will be used toward the Pot Room 3 restart, the Smelter technology upgrade at Alumínio (SP) and the recycling expansion at Metalex. We anticipate that the new pot feed system will help to reduce greenhouse gas emissions at the smelting stage, where aluminum oxide is converted into molten aluminum. The new technology will also improve energy and water savings, plant efficiency and safety. The project will generate estimated energy savings equivalent to the electricity consumption of 30,000 average homes. The recycling project at Metalex, in Araçatiguama (SP), will improve emissions performance by progressively increasing the amount of scrap used in producing aluminum. As the three projects provide environmental benefits, they all qualified for sustainability credit lines carrying lower interest rates and maturities of up to 20 years.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	Sustainability targets (including greenhouse gas emissions) aligned with company strategy and linked to cash bonuses to eligible employees (leaders at all levels).

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive

Board Chair

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Achievement of climate transition plan KPI
 Progress towards a climate-related target
 Achievement of a climate-related target
 Reduction in emissions intensity
 Energy efficiency improvement
 Increased share of renewable energy in total energy consumption
 Increased engagement with customers on climate-related issues
 Increased supplier compliance with a climate-related requirement
 Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)

Incentive plan(s) this incentive is linked to

Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)

Sustainability goals to disseminate our 2030 ESG Strategy to all the company, including greenhouse gas emissions knowledge.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

Illustrating the importance we attach to ESG practices, CBA has set corporate targets that align with our 2030 ESG Strategy and are tied to variable compensation for eligible employees in our Aluminum and Energy business units. These targets reflect each employee's role within the business. The target for senior management is based on average performance across the business. CBA offers long-term incentives aimed at promoting alignment between its interests and those of the shareholders to ensure the continuous creation of value, as defined by the Board of Directors. The model provides for the use of the Total Shareholder Return (TSR) methodology to determine the long-term incentive, aiming to engage management in the development and implementation of a consistent strategic plan, as well as to attract and retain executives.

Entitled to incentive

Board/Executive board

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Achievement of climate transition plan KPI
 Progress towards a climate-related target
 Achievement of a climate-related target
 Reduction in emissions intensity
 Energy efficiency improvement
 Increased share of renewable energy in total energy consumption
 Increased engagement with customers on climate-related issues
 Increased supplier compliance with a climate-related requirement
 Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)

Incentive plan(s) this incentive is linked to

Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)

Sustainability goals to disseminate our 2030 ESG Strategy to all the company, including greenhouse gas emissions knowledge.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

Illustrating the importance we attach to ESG practices, CBA has set corporate targets that align with our 2030 ESG Strategy and are tied to variable compensation for eligible employees in our Aluminum and Energy business units. These targets reflect each employee's role within the business. The target for senior management is based on average performance across the business. CBA offers long-term incentives aimed at promoting alignment between its interests and those of the shareholders to ensure the continuous creation of value, as defined by the Board of Directors. The model provides for the use of the Total Shareholder Return (TSR) methodology to determine the long-term incentive, aiming to engage management in the development and implementation of a consistent strategic plan, as well as to attract and retain executives.

Entitled to incentive

Director on board

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Achievement of climate transition plan KPI
 Progress towards a climate-related target
 Achievement of a climate-related target
 Reduction in emissions intensity
 Energy efficiency improvement
 Increased share of renewable energy in total energy consumption
 Increased engagement with customers on climate-related issues
 Increased supplier compliance with a climate-related requirement
 Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)

Incentive plan(s) this incentive is linked to

Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)

Sustainability goals to disseminate our 2030 ESG Strategy to all the company, including greenhouse gas emissions knowledge.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

Illustrating the importance we attach to ESG practices, CBA has set corporate targets that align with our 2030 ESG Strategy and are tied to variable compensation for eligible employees in our Aluminum and Energy business units. These targets reflect each employee's role within the business. The target for senior management is based on average performance across the business. CBA offers long-term incentives aimed at promoting alignment between its interests and those of the shareholders to ensure the continuous creation of value, as defined by the Board of Directors. The model provides for the use of the Total Shareholder Return (TSR) methodology to determine the long-term incentive, aiming to engage management in the development and implementation of a consistent strategic plan, as well as to attract and retain executives.

Entitled to incentive

Corporate executive team

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Achievement of climate transition plan KPI
Progress towards a climate-related target
Achievement of a climate-related target
Reduction in emissions intensity
Energy efficiency improvement
Increased share of renewable energy in total energy consumption
Increased engagement with customers on climate-related issues
Increased supplier compliance with a climate-related requirement
Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)

Incentive plan(s) this incentive is linked to

Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)

Sustainability goals to disseminate our 2030 ESG Strategy to all the company, including greenhouse gas emissions knowledge.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

Illustrating the importance we attach to ESG practices, CBA has set corporate targets that align with our 2030 ESG Strategy and are tied to variable compensation for eligible employees in our Aluminum and Energy business units. These targets reflect each employee's role within the business. The target for senior management is based on average performance across the business. CBA offers long-term incentives aimed at promoting alignment between its interests and those of the shareholders to ensure the continuous creation of value, as defined by the Board of Directors. The model provides for the use of the Total Shareholder Return (TSR) methodology to determine the long-term incentive, aiming to engage management in the development and implementation of a consistent strategic plan, as well as to attract and retain executives.

Entitled to incentive

Chief Executive Officer (CEO)

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Achievement of climate transition plan KPI
Progress towards a climate-related target
Achievement of a climate-related target
Reduction in emissions intensity
Energy efficiency improvement
Increased share of renewable energy in total energy consumption
Increased engagement with customers on climate-related issues
Increased supplier compliance with a climate-related requirement
Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)

Incentive plan(s) this incentive is linked to

Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)

Sustainability goals to disseminate our 2030 ESG Strategy to all the company, including greenhouse gas emissions knowledge.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

Illustrating the importance we attach to ESG practices, CBA has set corporate targets that align with our 2030 ESG Strategy and are tied to variable compensation for eligible employees in our Aluminum and Energy business units. These targets reflect each employee's role within the business. The target for senior management is based on average performance across the business. CBA offers long-term incentives aimed at promoting alignment between its interests and those of the shareholders to ensure the continuous creation of value, as defined by the Board of Directors. The model provides for the use of the Total Shareholder Return (TSR) methodology to determine the long-term incentive, aiming to engage management in the development and implementation of a consistent strategic plan, as well as to attract and retain executives.

Entitled to incentive

Chief Financial Officer (CFO)

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Achievement of climate transition plan KPI
Progress towards a climate-related target
Achievement of a climate-related target
Reduction in emissions intensity
Energy efficiency improvement
Increased share of renewable energy in total energy consumption
Increased engagement with customers on climate-related issues
Increased supplier compliance with a climate-related requirement
Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)

Incentive plan(s) this incentive is linked to

Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)

Sustainability goals to disseminate our 2030 ESG Strategy to all the company, including greenhouse gas emissions knowledge.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

Illustrating the importance we attach to ESG practices, CBA has set corporate targets that align with our 2030 ESG Strategy and are tied to variable compensation for eligible employees in our Aluminum and Energy business units. These targets reflect each employee's role within the business. The target for senior management is based on average performance across the business. CBA offers long-term incentives aimed at promoting alignment between its interests and those of the shareholders to ensure the continuous creation of value, as defined by the Board of Directors. The model provides for the use of the Total Shareholder Return (TSR) methodology to determine the long-term incentive, aiming to engage management in the development and implementation of a consistent strategic plan, as well as to attract and retain executives.

Entitled to incentive

Chief Operating Officer (COO)

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Achievement of climate transition plan KPI
Progress towards a climate-related target
Achievement of a climate-related target
Reduction in emissions intensity
Energy efficiency improvement
Increased share of renewable energy in total energy consumption
Increased engagement with customers on climate-related issues
Increased supplier compliance with a climate-related requirement
Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)

Incentive plan(s) this incentive is linked to

Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)

Sustainability goals to disseminate our 2030 ESG Strategy to all the company, including greenhouse gas emissions knowledge.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

Illustrating the importance we attach to ESG practices, CBA has set corporate targets that align with our 2030 ESG Strategy and are tied to variable compensation for eligible employees in our Aluminum and Energy business units. These targets reflect each employee's role within the business. The target for senior management is based on average performance across the business. CBA offers long-term incentives aimed at promoting alignment between its interests and those of the shareholders to ensure the continuous creation of value, as defined by the Board of Directors. The model provides for the use of the Total Shareholder Return (TSR) methodology to determine the long-term incentive, aiming to engage management in the development and implementation of a consistent strategic plan, as well as to attract and retain executives.

Entitled to incentive

Process operation manager

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Achievement of climate transition plan KPI
Progress towards a climate-related target
Achievement of a climate-related target
Reduction in emissions intensity
Energy efficiency improvement
Increased share of renewable energy in total energy consumption
Increased engagement with customers on climate-related issues
Increased supplier compliance with a climate-related requirement
Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

Sustainability goals to disseminate our 2030 ESG Strategy to all the company, including greenhouse gas emissions knowledge.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

Illustrating the importance we attach to ESG practices, CBA has set corporate targets that align with our 2030 ESG Strategy and are tied to variable compensation for eligible employees in our Aluminum and Energy business units. These targets reflect each employee's role within the business. The target for senior management is based on average performance across the business.

Entitled to incentive

Other, please specify (Todos os empregados profissionais (RV))

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Achievement of climate transition plan KPI

Progress towards a climate-related target

Achievement of a climate-related target

Reduction in emissions intensity

Energy efficiency improvement

Increased share of renewable energy in total energy consumption

Increased engagement with customers on climate-related issues

Increased supplier compliance with a climate-related requirement

Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

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C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	1	Risk mitigation actions enter in the budget for the following year
Medium-term	1	5	The Company's strategic planning is evaluated for the next 5 years.
Long-term	5	30	Some long-term risk costs are provisioned in the ARO and ORO accounts, such as risks associated with decommissioning.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

The topics and risks, including those related to climate, are classified based on their potential impact on finance, reputation, environment, society, legality, and health and safety. Climate-related risks are assessed in terms of their financial impact, ranging from R\$ 45 MM (minor impact) to values exceeding R\$ 180 MM (extreme impact). The financial impact scale defines an event as EXTREME when it consumes 50% or more of the Risk Appetite (approved by the Board of Directors), calculated annually considering the company's Strategic Planning cycle.

In the context of climate-related risks, the reputational impact is considered strategic when there is negative exposure at the local level affecting only one stakeholder group (such as CBA legal representatives, government authorities, society, opinion makers, market, and internal public). It reaches an extreme level when it affects clients or critical suppliers, or when long-term damage to reputation occurs, resulting in negative exposure at the national and/or international level through press coverage and social networks, impacting all stakeholders.

Regarding environmental concerns, a climate-related risk becomes strategic if it involves an event of environmental liability. It becomes an extreme climate-related risk when this liability causes a significant impact of such magnitude that it becomes financially unfeasible to reverse the damage to species, habitats, and ecosystems, consequently hindering the continuity of operations.

For social issues, a climate-related risk becomes strategic when it impacts a specific neighborhood or community, affecting the economic (employment or income), environmental (natural resources), or physical (health and safety) well-being of residents. It reaches an extreme level when it leads to severe regional impacts, with communities and/or public entities capable of interrupting operations, causing significant disruptions in social dynamics and resulting in permanent or lasting changes in people's way of life.

In terms of health issues, climate-related risks are relevant when they affect employees, resulting in the need for medical leave (e.g., heat-related illnesses in warmer temperatures). They can be classified as extreme when weather events associated with these risks lead to fatalities.

Although Brazil does not currently have significant laws addressing climate-related risks in the private sector, any emerging regulations, such as carbon regulations (e.g., carbon pricing or border defense mechanisms), that could have a financial impact on the company are considered strategic climate-related risks.

Within the company's risk mapping structure, impacts are categorized into four levels: Minor, Moderate, Major, and Extreme. For CBA, significant risks are those rated as Major or Extreme.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

CBA has a Risk Management Policy for managing financial, operational, socio-environmental, strategic and compliance risks that consider climate risk analysis and climatic attributes. The Company's Risk Management Policy is based on (i) governance guidelines, Company corporate bylaws; (ii) applicable rules issued by the Brazilian Securities Commission ("CVM"); (iii) the Novo Mercado Listing Regulations by B3 S.A. - São Paulo Stock Exchange; (iv) the guidelines and principles described in the Company's Code of Conduct as well as in the internal regulations of the Statutory Audit Committee and the Board of Directors; and (v) the COSO-ERM model - Committee of Sponsoring Organizations of Treadway Commission - Enterprise Risk Management ("COSO ERM"); and (iv) the ABNT NBR ISO 31000:2018 standard - Risk management - guidelines.

The Risk Management Policy has the main objective of establishing guidelines and responsibilities for the Company's Risk Management, as well as guiding the processes of contextualizing, identification, evaluation, analysis, treatment, recording, monitoring and communication of risks inherent to its activities, incorporating risk elements into strategic decision-making and in accordance with best market practices. The Risk Management Policy is applicable to all areas of the Company and its units, which must use the tools made available by Risk Management and Internal Controls to support the conduct of its processes in order to seek reduction of risk exposure, internal or external, inherent to CBA's business and that were detected, contextualized, identified, prioritized, evaluated, recorded, treated and monitored.

For the Company, "Risk" is the possibility that an event will occur and adversely affect achieving objectives, with "Risk Management" being a set of coordinated activities to direct and control an organization as it pertains to risk, the purpose of which is to create and protect value, to improve performance, encourage innovation and support the achievement of strategic objectives

The company has a risk identification step that performs search, recognition and description of Risks, based on the established context and supported by communication and consultation with the parties' stakeholders, internally and externally. The aim is to produce a comprehensive list of Risks, including causes, sources and events, which may have an impact on achieving objectives identified in the context establishment stage. In addition, there is the Risk Analysis stage, responsible for understanding the nature of the Risk and determining the level of Risk, providing the basis for assessment and for decisions on the treatment of Risks. The result of the Risk analysis will be to assign, for each identified Risk, a rating both for "Probability" (measure of the possibility of a Risk event) and for the "Impact" (consequence of materialization of a Risk event in the objectives), which combination will determine the level of Risk. Next, there is the risk assessment stage, with the purpose of carrying out a Risk assessment and assisting in decision making. based on the results of the Risk analysis, in which Risks need treatment and priority for implementing treatment. This involves comparing the level of Risk with the criteria of Risks established when the context has been considered, to determine whether the Risk and/or its magnitude is acceptable or tolerable or if any treatment is required. Finally, there is the risk treatment stage, which involves selection of one or more options to modify the level of Risk and prepare treatment plans, which once implemented, will imply introducing new controls or modifying those existing

The purpose of risk identification is to find, recognize and describe risks that can affect CBA in achieving objectives defined. This analysis is carried out considering all the risk factors detected through the risk assessment process and are evaluated according to the impact and probability of the risk. The evaluation criteria involve the comparison between risk rules and probability of occurrence in internal and external environments, as well as the controls in place to mitigate the risks. The result of the assessment must be registered, communicated and validated by the governance bodies: Executive Board, Audit Committee and Board of Directors. Inside our risks document there is a space to select if the risks are related to some climate change attribute, and if so, the respondent should complete a climate change annex where there is more detailed information on how climate attributes can increase, or the impact or the probability and financial impact (This document was revised considering TCFD recommendations). Inside the annex will be seen if it is a transition or physical risk, and if it has any political/legal, technological, market or reputation bias. Opportunities are mapped by each area of the company and registered in a multi-disciplinary Competitiveness Management platform. Assessments are made several times during the year and actions and indicators are systematically monitored. This platform also evaluates the magnitude of the opportunity to determine whether it would have a significant financial or strategic impact. Opportunities are also considered in the short, medium and long term. The main opportunities are also submitted to the Board of Directors. Climate opportunities may involve mitigation projects that have financial gains, possibilities for increasing margins or share in low-carbon products, development of the supply chain to be prepared for climate change, among others. Climate risks and opportunities can be physical (acute or chronic) or transitional (current and emerging regulation, technology, legal, market and reputational).

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & Inclusion	Please explain
Current regulation	Relevant, sometimes included	Current regulations do not offer significant risks to CBA, since today, only the company is required to report its scope 1 and 2 emissions. CBA reports its total and assured emissions inventory within the public emissions registry. The company considers this disclosure important to ensure transparency of one of the most material topics for the company, and failing to publish this data is not an option for the company's climate change management, and goes against the ESG 2030 strategy and its positioning of a reference in sustainability. We follow the regulation updates closely to assess whether this risk may arise, and always prioritize following discussions of regulatory changes and being aligned with best market practices, that way we can reduce impacts by significant changes to the company's activities. To CBA, an extreme risk would be if the change in current regulations has the power to stop our operations. CBA has a risk form that must be completed every time a new risk is detected. Inside this document there is an option "Governance and Conformity" in the risk assessment form to classify the type of risk, for signaling whether the risk can adversely impact current regulations applicable. In the same document we have the option to select if the risk has any kind of climate change bias, and if so, the person responsible for this risk should complete an annex with more information on how climate aspects can increase the probability or impact the scenario in question.
Emerging regulation	Relevant, always included	This topic can cause significant financial impacts to the company since we have processes with relevant direct emissions, although our emissions are low compared to other primary aluminum producers in the world. This can be applied to border protection mechanisms such as European CBAM (Carbon Border Adjustment Mechanism) as well. In Brazil, carbon pricing is being studied and it could become a regulation. There is a "Governance and Conformity" option in the risk assessment form to rate the type of risk, in which emerging regulations should be considered. In the same document we have the option to select if the risk has any kind of climate change bias, and if so, the person responsible for this risk should complete an annex with more information on how climate aspects can increase the probability or impact the scenario in question.
Technology	Relevant, always included	With the introduction of new technologies that are more competitive in terms of emissions, former ones start to have a commercial disadvantage. Considering the inclusion of carbon pricing systems and border protection systems, companies with "backward" technologies with higher emission intensity would have to pay more in carbon pricing systems, increasing the cost of its product and impacting CBA's competitiveness in the market. After development of our Climate Change Adaptability study, technology risks were deemed relevant to the company. With the evidence of global warming (IPCC report) and the increase in discussions and market demands on the role of the private sector in the process of reducing GHG emissions. There is a "Strategic topic" option in the risk assessment form to classify the type of risk. Inside the annex it is possible to select the "Technological" rating for this climate risk. In the same document we have the option to select if the risk has any kind of climate change bias, and if so, the person responsible for this risk should complete an annex with more information on how climate aspects can increase probability or impact the scenario in question.
Legal	Relevant, sometimes included	Current regulations and the legal system do not offer significant risks to CBA, as the company only is currently required to report its scope 1 and 2 emissions. CBA reports its total and ensured emissions inventory within the public emissions registry. The company considers this disclosure important to ensure transparency of one of the most material topics for the company and failing to publish this data is not an option for the company's climate change management, and goes against the ESG 2030 strategy and its positioning as a reference in sustainability. We comply with current legislation and watch all the updates closely to assess whether this risk may arise or not in coming years. To CBA an extreme risk would be if the change in current regulations has the power to stop our operations. There is a "Governance and Conformity" option in the risk assessment form to classify this type of risk.
Market	Relevant, always included	This topic can generate financial results, since it would lose market share. CBA and the aluminum sector as a whole has as its main manufacturing model counter-arguments of dealumination in the activity and low carbon emissions are being studied. The aluminum market may suffer a significant impact from climate change, mainly due to stigmatizing it as a major polluter. Thus, some clients may look for alternative materials to be used instead of aluminum. In the world some companies are already trying to create aluminum-free packaging known as alu-free, causing a decrease in aluminum demand throughout the market. As a result, CBA's sales may be affected, directly impacting its revenues. This has not yet occurred, but it is a real risk that the company and all the aluminum sector are structuring a decarbonizing strategy to decrease the risk's probability and impact (Today this kind of discussion is more frequent among packaging companies). There is a "strategic topic" option in the risk assessment form to classify the type of risk in which the market may be considered. Market is a relevant topic for CBA that should always be considered.
Reputation	Relevant, always included	Reputation is an important issue for CBA and can result in market loss, and adversely impact the company's share price in the B3 stock exchange. Several mining and metallurgy companies are suffering criticism for taking few actions or not ambitious measures on climate issues. In this way CBA also runs the risk of having its reputation impacted by this topic, and that is why we have several actions to engage with climate change issues inside our value chain to mitigate this risk. CBA has plans to be a sustainability market reference and one of our main topics is our carbon strategy and management, one of our materiality topics, and hence we care about the perception that society and the market have of our activities There is a "strategic topic" option in the risk assessment form to rate the type of risk. Inside the annex it is possible to select the "Reputational" rating for this climate risk.
Acute physical	Relevant, always included	CBA has exercised climate projections for all of its units in the aluminum business to increase its climate resilience to acute physical risks. One of our acute risks is the impact on critical suppliers due to climate-related events, whether extreme weather events and/or reduced rainfall can impact suppliers' operations, reducing availability of critical materials for CBA's production. That could lead to a situation that CBA may have to stop or reduce its operations, which could lead to a reduction in income generation. There is the "operational" option in the risk assessment form to classify the type of risk, in which acute physical risks should be considered.
Chronic physical	Relevant, always included	CBA has produced climate projections for all of its units in the aluminum business to increase its climate resilience to chronic physical risks. Climate projections indicate a risk of drought and reduced rainfall, causing a possible water crisis which may limit use of water in the operation and have adverse impacts on CBA's structure with production downtime. In the event of a lack of water, the community can also be impacted and the government can act to reduce the volume of grants for industrial processes. This could lead to a situation whereby CBA would have to stop or reduce operations, which could lead to a reduction in income generation. There is the "operational" option in the risk assessment form to classify the type of risk in which chronic physical risks should be considered.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation	Carbon pricing mechanisms
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Primary potential financial impact

Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Brazil does not currently have regulations on climate change, but through the PMR Brasil Project and other state projects that were studying alternatives to apply carbon pricing in the country aligned to an emissions trade scenario. The pricing proposal will be applied to aluminum industries producers with significant emissions (above 25,000 t CO2e/year). Currently, the plant's emissions by the unit located in the town of Alumínio (SP) are 1,285.6 thousand tCO2e (scope 1) and Itapissuma (PE) are 36,190.2 tCO2e (scope 1) in 2022. This increase in costs may affect CBA's competitiveness in relation to other smaller domestic companies, which will not have such significant

pricing or regarding aluminum imported into Brazil from countries that do not have carbon pricing. CBA has a vertically integrated plant with all the production steps of the aluminum chain (Refinery, Smelters, Casthouse and Downstream production), however the great majority of other companies in the area have one or two of these steps within their operations, which can lead to a scenario whereby not every aluminum company has to pay the price for carbon emissions, causing financial impacts to CBA due to loss of market competitiveness.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

21259000

Potential financial impact figure – maximum (currency)

44369000

Explanation of financial impact figure

The financial impact was calculated through CBA's internal pricing study. The study relied on the assessment by an external carbon pricing expert and looked at the proposed structure of PMR Brasil and PL 528/21, pricing systems in countries of interest (CBA exports) and considered the Company's Mitigation Projects.

The potential financial impact reported refers to the annual impact on the company's operating profit based on its scope 1 emissions in that year for both plants (Aluminio and Itapissuma). In this study it was calculated that our carbon pricing will be R\$22.85. Following PMR statements, emissions threshold (it was taken into account that the business units to be included in a carbon pricing mechanism are those that emit more than 25000 t CO2e/year).

Assumptions for final value: (i) Same current export profile for processed (%); (ii) Carbon pricing system implementation in Brazil: early 2025, price (R\$40.00) increases and free allocation (50%) + offsets (20%) gradually reduced; (iii) CBAM system implementation: start 2026, gradual increase; (iv) Dollar: BRL 5.69; (v) Discount rate=0.

Indicator calculation:

Final result = Purchase of licenses (CP) + Purchase of offsets (CO) + Boundary adjustment value (AF)

For CP, CO and AF, the volume of emissions needing reconciliation was established, following PMR and the European CBAM assumptions, applying to the CBA emissions scenario.

CP = Volume of emissions priced by the PMR * Licensing cost (R\$40.00 for 2025 and R\$60.00 for 2035);

CO = Volume of offsets allowed by the PMR * Offset cost (R\$21.57);

AF = Volume of emissions priced by CBAM * Cost of border adjustment (R\$13.97 for 2025 and R\$19.19 for 2035);

This calculation was performed twice, once for 2025 (lower value reported) and once for 2035 (higher value reported)

Cost of response to risk

41000

Description of response and explanation of cost calculation

With the Brazilian scenario posing risks associated with carbon pricing, CBA recognized the importance of understanding carbon pricing concepts and operating in the market. To achieve this, the company sought training and simulation opportunities at the Center for Sustainability Studies at FGV, a renowned institution in Brazil for simulating the carbon market. The training and simulations proved highly valuable, enabling CBA to improve its understanding of carbon markets and make more informed decisions, such as purchasing allowances at more favorable prices later in the year. Additionally, CBA now has a better grasp of the documents released by the PMR Brasil Project, allowing the company to provide clear responses regarding the project's impact on CBA and its activities during public consultations.

CBA actively engaged with the PMR Brasil Project, responding to three questionnaires and providing comprehensive insights into the potential impacts of the project on the company. In 2021, CBA collaborated with FGV once again to further analyze internal carbon pricing. Furthermore, in 2022, CBA participated in discussions, facilitated by ABAL (Brazilian Aluminum Association), regarding the potential effects of the European CBAM (Carbon Border Adjustment Mechanism) on the domestic market and the aluminum sector.

These efforts aim to minimize the disruptions resulting from the implementation of carbon pricing mechanisms and enhance CBA's preparedness for future reporting requirements. It is anticipated that reporting to the European CBAM will commence in 2023, with a pricing system set to be established in Brazil by mid-2024 and 2025. The costs associated with these endeavors included a carbon pricing study conducted in collaboration with FGV, costing R\$25,000, and support for a sectoral study facilitated by ABAL, with a payment of R\$16,000 made by CBA. Other actions taken by CBA, such as internal management decisions, governance establishment, reporting, monitoring, and considering emission reduction projects, were regarded as internal activities without additional costs. Should the risk materialize, the response would involve managerial decisions, such as adapting carbon price values based on project data to align with the pricing instrument implemented.

Comment

CBA regularly monitors the progress of this carbon pricing project around the world.

As the implementation project in Brazil demonstrates more clarity in definitions, financial calculations are revised.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical	Drought
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Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

In its industrial unit in the town of Alumínio (SP), we have our integrated plant featuring all the aluminum chain production steps. Today water is used in the refinery stage (raw material digestion), smelter stage (gas treatment), casthouse and downstream stages (product cooling). Water is essential to our production process, and with climate change aggravation projections there is a possibility of rainfall reduction and increase in hydro stress in water basins. CBA has produced climate projections for all of its units in the aluminum business with the purpose of taking the results and creating an action plan to increase CBA's climate resilience. With the changes in rainfall parameters, our units are exposed to the risk of lack of water, that can compromise our production and as a consequence our revenues. In the projections carried out by CBA as a result, some changes in weather patterns for the coming decades can be observed:

- 1) Rainfall can be reduced by up to 10%;
- 2) The risk of drought will increase to a medium-high degree;
- 3) Seasonal variability will increase in all units;
- 4) There may be an increase in minimum and maximum temperatures of up to 10%;
- 5) Heavy rain can increase by up to 20% in two regions evaluated by the company.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

64500000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

To measure this financial impact, it was considered that CBA did not have water available for six months, in a way that would interrupt 100% of its aluminum production operations. The company would then have a drop in the volume of aluminum sales during this period, so that only what was in the company's inventories would be sold. In a possible scenario of production stoppage, the company would have reduced costs from raw material purchases for the production process, including electricity that is currently supplied to us largely by its own plants, so in a stoppage scenario this generated energy could be sold in the market to reduce the financial impacts created by the lack of aluminum production.

Calculation of the indicator:

Final result (R\$64,500,000) = Reduction in revenue from aluminum sales (RR) – Sale of inventories (SI) – Sale of Energy (SE) – Reduced costs due to declining purchases of raw materials (RCPRM)

Cost of response to risk

1100000

Description of response and explanation of cost calculation

With the increased risk of water shortages (inserted in our climate projections and the aggravation of the drought period that Brazil faced in 2021) CBA traced an action plan to build a new water collection well and approved a total investment of MMR\$ 1.1. To prevent the lack of water that could adversely impact its operations and reduce our production capacity, the company organized itself to carry out feasibility studies for the project's development, carried out an analysis and prepared the budget for the service that will include drilling a new well and construction of a new network of pipes to transport the collected water in order to serve as a supply support in periods of low rainfall and when the reservoirs are at lower than expected levels. With this project, the expected outcome is for CBA to achieve greater climate resilience during periods of drought, where the company would have a new water supply option. This measure could support the company in the coming decades, as indicated by climate projections conducted by the company, which have identified potential reductions of up to 10% in precipitation in certain regions.

Cost calculation: This investment was made through the service budget sent by the companies responsible for the new well construction. Approximately 27% of the total investment will be for drilling. The remaining sum will be applied to construction of the structure, in addition to other adaptations to the company's current structure to receive water produced by the new well.

Comment

So far, CBA's actions have been effective and have been able to prevent the occurrence of this risk, even in events of drought periods

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of recycling

Primary potential financial impact

Reduced direct costs

Company-specific description

Aluminium is recognized as a solution for developing less resource-intensive and more circular supply chains that re-utilize materials and minimize waste and environmental impact. Reusing materials is an important way to reduce pressures on the world's natural resources, while also minimizing waste from discarding end-of-life products. This makes recycling process scrap one of the most important processes at CBA. Recycling provides an additional source of raw materials in the value chain by reusing scrap produced on- and off-site. This supports not only higher production volumes but also increased cost efficiency. It also provides savings on raw materials, inputs and electric power, generating higher value-added aluminium and reduced environmental impact. In a process known as remelting, process scrap is recycled into new products. At the CBA unit called Metalex located in Araçatuba/SP, investments are planned to increase scrap consumption in the casting stage. With more efficient furnaces using the sidewall technology, the expected increase is to achieve 80% of the scrap consumption in this process between 2023 and 2027.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

66424761

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The project to increase scrap consumption will be dealt with on two different fronts. The first deals with the purchase and installation of a new Sidewall furnace, while the second deals with the adaptation of Metalex's cold production line, which will make it possible to increase both the plant's production to 72,000 tons of aluminum/year and increase the percentage of scrap in the composition of the Metalex product.

The installation of the new furnace will bring gains in the improvement of the metallic yield of the process, which will be responsible for 1% of the positive financial impact of the project.

Meanwhile, the adaptation of the cold line (which will represent 99% of the gains) will bring annual benefits such as increasing the metallic yield of scrap at the Metalex plant (29% of the impact), gain in the increase of the weighted margin (12% of the impact), gain in metallic yield at the CBA plant (13% of the impact), gain in the purchase price of scrap that will replace the input of external ingot (34% of the impact), gain in the disposal of process waste (2% of the impact) and others gains from making the scrap line viable (13% of the impact).

Cost to realize opportunity

115000000

Strategy to realize opportunity and explanation of cost calculation

Scrap is an additional source of raw material in the value chain, allowing an increase in aluminum production and dilution of the fixed costs of the process, once the existing structure is optimized. With this in mind, CBA structured the project to install a scrap treatment line at Metalex unit, allowing the Company to use different types of scrap and, therefore, have more flexibility in the metal supply secondary in the market, contributing to the increase of recycled content in its products and adding around 50ktpa of additional production capacity by the end of 2025. In the Company's view, from the point of view of the ESG strategy, the projects contribute to the circularity of aluminum through (i) increased use of recycled aluminum in production; (ii) reduction of CO2 emissions since the energy used for production at from recycling is 95% lower compared to regular production; (iii) innovation that results in the possibility of recycling multi-layer packaging. The project have an expected investment amount of R\$115,000.000.00. Project in progress, with disbursements expected until 2023.

Cost Calculation: The annual gains are of approximately 16% of the reported amount was from the purchase of the new Sidewall oven, 64% of the investment was for the acquisition of materials and equipment necessary for the adaptation of the production area, 12% was for contracting services to support the adaptation, 6% for project management and maintenance and 2% for engineering expenses

Comment

Not applicable.

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of more efficient production and distribution processes

Primary potential financial impact

Reduced direct costs

Company-specific description

CBA uses Söderberg technology in its Smelting operations (Alumínio city), where aluminium oxide is transformed into smelting aluminum. Our Updating Smelter technology project (initially called Green Söderberg project), launched in 2018, is automating the furnace feed process to reduce emissions from the process while also improving efficiency and safety. Currently 150 cells have the technology installed to test and optimize results. The project will undergo a progressive startup process between 2023 and 2025. Once the project is properly installed and stabilized, it could be able to reduce the emissions of this process by 20%. The Smelters' operation represents about 70% of the emissions of the entire CBA and, therefore, this project is very representative for climate change. To make the point feeder project viable, two other projects are also being developed. The first one is in the Smelters plant it reduces the production of black mud and anode effect, which generates PFC emissions. The second one is a project to upgrade the structures where the anode paste is produced, which aims to improve the quality of the anodic paste, according to the quality parameters required by the point feeder technology.

Time horizon

Long-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

53113282.92

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

This project will have annual positive financial impacts through the following points: (i) reduction of electricity consumption (26% of the impact); (ii) reduction in fluoride consumption (7% of the impact); (iii) reduction in pulp consumption (12% of the impact); (iv) reduction in oxide consumption (6% of the impact) and reduction in the need for the wet gas treatment step (50% of the impact). Considering these improvements, the project has the potential of MMR\$53.1 (Amount reported in previous items).

Another possible financial impact would be the implementation of a carbon regulation system through pricing in Brazil, and using our pricing study it was possible to point out that for this project that has the potential to reduce more than 130 thousand tCO₂e by the end of 2025, and considering our internal carbon price (R\$22.85), in a future scenario it will be possible to have a positive impact of approximately MMR\$3.0 (This value was not added to the previous item as it is a forecast).

Cost to realize opportunity

620000000

Strategy to realize opportunity and explanation of cost calculation

- Strategy to realize opportunity: To execute this project at the CBA Smelter located in Aluminio city (SP), it is being necessary to carry out several studies (since 2013). In addition, pilot point feeder systems were installed in 150 cells to understand how the systems work and to refine the project. For the complete execution, these systems will be installed in all CBA Smelter pots by 2030. During installation, all process parameters will be monitored. If the emission reduction is significant, it will be possible to turn off the gas treatment system that works with a high volume of water and caustic soda, generating residues of oxide particles. With the shutdown of the gas treatment system, this consumption of water and caustic soda will be eliminated, as well as the generation of waste from this process. The forecast is that this will reduce emissions from this process by about 20% and bring financial savings related to increased efficiency and reduced resources. It's expected that the project would be implemented by the end of 2025.

- Explanation of cost calculation: Considered costs for basic engineering design and project management, for the acquisition of machinery, equipment, and other materials, for electromechanical assembly, operational expenses, and others. sts, such as pre-operational expenses

Comment

The Smelters' operation represents more than 70% of the emissions of the entire CBA and, therefore, this project is very representative for climate change.

Identifier

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of lower-emission sources of energy

Primary potential financial impact

Reduced direct costs

Company-specific description

At the aluminum oxide Refinery located in the city of Alumínio (SP), it was necessary to use boilers that used fuel oil and natural gas to run the processes. There is an opportunity to significantly reduce emissions from this process by replacing these boilers by another boiler that works with wood chip biomass from forests planted for this purpose. This opportunity was responsible to reduce 63% of the Refinery's emissions that are the second most emissive step from the aluminium chain (responsible in 2019, before the biomass boiler implementation, for 27% of all Aluminio plant emissions). With this project the emissions intensity from refinery phase decreased from 0.55 tCO₂e/t oxide to 0.20 tCO₂e/t oxide. In addition to the benefits of reducing the carbon footprint of this process, it will be possible to obtain financial gains by eliminating the consumption of natural gas and fuel oil (CBA had cost savings, as biomass is cheaper compared to the previously used fossil fuels). This project started the implementation phase in march 2020, and in 2021 was the first year that the Biomass boiler worked all year. Lower carbon emissions from the Refinery mean end products now have a reduced carbon footprint—and aluminium produced with low carbon emissions has a higher market value and can unlock new markets.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

77850670

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

To the biomass boiler we calculated that CBA have annual positive financial impacts;

Process impact (Considering the natural gas consumption and its substitution by steam from biomass combustion) – It was calculated the sum of steam generated by natural gas and biomass and the cost of both to produce the same amount of steam. At last we subtracted the cost of steam from natural gas to the cost of biomass steam and it led to a result of 77,850,670 (96.137.133 m³ of natural gas) – Leading to the reported value before.

The company can in the future have more financial impacts when considering carbon pricing (considering the possibility of the implantation of a carbon regulation system)

– To this value it was considered the reduction into our scope 1 emissions due to our natural gas consumption reduction. This value (in tCO2e) was multiplied by our internal carbon price (R\$22.85) and led to a financial impact of R\$4,544,926. As this is only an estimated value it wasn't included in the reported value.

Cost to realize opportunity

15500000

Strategy to realize opportunity and explanation of cost calculation

As the second most emissive phase from all the aluminium chain production, the refinery are one of the most important steps analysed to cut GHG emission. Responsible for the consumption of natural gas and oil, the alumina production has great potential to new projects that can help to reduce its emissions just by exchanging the fuels used into the process. With this in mind, CBA forged a partnership alongside with Combio Energia S.A., and in March 2020, utility partner company started operation of a new biomass boiler system at the Alumina Refinery. CBA replaced its natural gas- and oil-fired boilers with a new boiler fueled by wood-chip biomass. To execute this opportunity, CBA needed to find a company specializing in biomass-operated boilers. After establishing this partnership, several studies were carried out that confirmed the benefits of the project for the CBA refinery. CBA needs to install the new boiler in its unit and monitor all process parameters to ensure that the execution is adequate. The biomass boiler is operating properly and is monitored according to the legislation of the state of São Paulo, and was responsible for a decrease of more than 60% of the refinery's scope 1 emissions.

Cost to realize opportunity: 80% of the cost is related to equipment acquisition and the rest was directed to project management, civil construction, and electromechanical assembly.

Comment

Not applicable

Identifier

Opp4

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Markets

Primary climate-related opportunity driver

Access to new markets

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

CBA products have low emissions compared to aluminum produced by competitors, and this can attract customers concerned about climate issues. In 2022, CBA launched Alennium, its new sustainable aluminum label.

CBA is committed to supplying low-carbon aluminum for a better world. And our Alennium mark is here to reinforce this commitment—a new label identifying articles made with our low-carbon aluminum. You can now quickly identify products that are helping to build a more sustainable world for everyone in the next millennium. Alennium connects our efforts to those of our partners who understand the role and responsibility we have to society. The new seal can be displayed on products made with our low-carbon aluminum—less than 4 tons of CO2e per ton of molten aluminum.

After all, sustainability is a key part of our mission and the future we're building together.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Today, we still have no way of estimating the financial impacts of opening new markets with a focus on low-emission products. For now, this indicator only brings a more positive image of the CBA product and was a differentiating factor in choosing between more than one supplier.

Following the 2022 study by GLOBAL BUYING GREEN REPORT, customers are willing to pay from 5% more for products with better ESG performance.

Cost to realize opportunity

0.1

Strategy to realize opportunity and explanation of cost calculation

The opportunity was discovered by evaluating the behavior of our customers over the past few years. The demand for ESG information, especially carbon performance indicators and emission reduction targets, grew exponentially, and it was possible to perceive the increased importance of the theme for the market, demanding more and more from companies that have low carbon aluminum and that have transparency and reliability of their disclosed data.

CBA hopes that with the launch of the Alennium label, a brand that reaffirms the company's mature ESG positioning, it will be an action that can bring the Company closer to

other companies that are more engaged with sustainability and the fight against climate change. Today CBA already has customers who use, or are interested in using aluminum with the Alennium seal.

Comment

To see more informations about the Alennium seal access CBA's 2022 sustainability annual report.

C3. Business Strategy

C3.1

(C3.1) Does your organization’s strategy include a climate transition plan that aligns with a 1.5°C world?

Row 1

Climate transition plan

Yes, we have a climate transition plan which aligns with a 1.5°C world

Publicly available climate transition plan

Yes

Mechanism by which feedback is collected from shareholders on your climate transition plan

We have a different feedback mechanism in place

Description of feedback mechanism

The CBA currently has two different feedback mechanisms where it is possible to address impacts on the topic of climate change. The first is a communication channel called the ethics line in which anyone (whether internal or external to the company) can leave feedback on occurrences of any nature, including environmental impacts and climate change. This mechanism is monitored throughout the year, and comments are directed to the responsible areas. The second mechanism is the materiality study, in which the company assesses which are the most significant issues for the company. During this evaluation, which is carried out with the company's top leadership, there is a public consultation phase, in which it is open for suppliers, customers and other external participants to give their perceptions about the company's practices and the most representative themes of its activities.

Frequency of feedback collection

More frequently than annually

Attach any relevant documents which detail your climate transition plan (optional)

CBA's TCFD report, available at: <https://ri.cba.com.br/en/tcf-report/>

Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world and any plans to develop one in the future

<Not Applicable>

Explain why climate-related risks and opportunities have not influenced your strategy

<Not Applicable>

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy	Primary reason why your organization does not use climate-related scenario analysis to inform its strategy	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future
Row 1	Yes, qualitative and quantitative	<Not Applicable>	<Not Applicable>

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Physical climate scenarios	RCP 4.5	Business division	<Not Applicable>
Physical climate scenarios	RCP 8.5	Business division	<Not Applicable>
Transition scenarios	BNEF NEO	Company-wide	<Not Applicable>

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

CBA observed throughout its participation in climate commitment initiatives, such as Global Compact, Cebds, the São Paulo Agreement, among others, that the market seeks and values companies with greater climate resilience, which would enable them to undergo climate change in a safer way and with controlled negative impacts. With this in mind, the company focused, with the climate adaptation project, on assessing the risks that it had already considered and confirmed if any of them had an interface with climate change, and in addition plotted new physical and transitional risks following the TCFD recommendations. Aware of the risks to which the company was exposed and their respective impacts and probabilities, the company invested in analyzing climate projection scenarios to help develop our risk assessment, and verify which areas were in more sensitive regions in terms of rainfall, risk of drought and water stress. The projections also helped us to assess which risk mitigation activities should be prioritized.

So basically the questions we wanted to answer were: Do we already have plotted risks that have interface with climate change? Are we able to detect new risks when we look specifically at climate change aspects? Can our company be considered resilient to market recommendations (TCFD)? Is our risk management system aligned with TCFD standards? Which of our units are most exposed to the consequences of climate change? What do we need to prioritize to create a climate adaptation plan? How will our units be impacted by climate change?

Results of the climate-related scenario analysis with respect to the focal questions

We confirmed that we already had plotted risks that interfaced with climate change, but the study helped us to increase our plotting by including new risks. We found that our risk map-plotting system would need adjustments in order to enable correlating climate issues more clearly, objectively and in line with TCFD recommendations and ratings (already performed). Observing the projections made for all CBA units in the aluminum business, we now saw that we do not have units in critical regions, especially with regard to water aspects, but with projections for future decades we were able to plot a number of opportunities for actions that the company may undertake in coming years to minimize the impacts by climate change. The study has proven to be important in supporting leadership decision-making, and an example of action guided by the pursuit of greater climate resilience is the investment in a more diverse energy matrix. CBA already owns its own hydroelectric plants that supply its energy demand, and recently started investing in solar and wind energy as a way to not rely solely on the hydro matrix. At the end of 2022, the company began the process of reviewing its climate projections, including transition scenarios and the new units (Alux and BU Energia).

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	There is an opportunity to gain market share by means of emission lower than competitors in the Smelting process. In 2021 this opportunity rose through brand repositioning, which involves disclosing our low emissions. CBA has increasingly conquered space in some market sectors, such as packaging, automotive and transportation due to aluminum sustainability attributes. The Market Development and Innovation team inform clients of sustainability gains provided by increased use of aluminum. This task provides recognition of the benefits of using aluminum and also raises new opportunities for its applications. It also makes CBA a supplier of choice by virtue of the low carbon aluminum produced by the company. In addition, CBA develops solutions with clients and, monitors sustainability gains of new products in all the development stages. In 2021 this team was responsible for developing 2 projects reducing emissions and 10 projects avoiding emissions (considering emissions inside CBA and our clients) which resulted in a total of 195,091,99 t CO ₂ e impacted. A successful case is a holder for electric bus batteries. One of the challenges for the electric vehicle sector is reducing weight of vehicles, as the batteries required for their operation are heavy (each module weighs about 120 kg). CBA developed with the client an aluminum battery holder substituting the holder previously made of steel. The aluminum holder is 280 kg lighter than the steel holder, reducing about 64% of weight and allowing to install 2 more battery modules. CBA built 3 prototypes installed in the client's vehicles. It is estimated that, due to this application, the emission of 12 t CO ₂ e will be avoided throughout the useful life of each bus. The prototypes passed the end client's tests and had results validated and approved. With this project CBA was able to place a new low carbon aluminum product to the market. CBA has been now named supplier and co-engineering participant in developing this product and is undergoing an audit, certification and approval process with our end client, having already received the first order for manufacturing this new product. The next step is to scale up production in order to increase volume and supply on a serial scale as of June 2022 (Investment: R\$ 4.000.000, 00).
Supply chain and/or value chain	Yes	There is a plotted risk of having greater difficulty and costs to acquire raw materials of fossil origin due to repositioning by investors in relation to climate change. Assessing these and other supply chain risks, a project is being developed to commit our suppliers, to assess their level of maturity and what actions can be taken to influence them. In supplier relations, we developed our Sustainable Procurement program, an initiative in partnership with the Votorantim Institute that aims to build commitment across the value chain—from mine to downstream. The program is a way to raise awareness among different departments at CBA on the role that the supply chain should play in sustainability, and on important issues to consider besides pricing, quality and lead times. Social, environmental and governance considerations have now been included in supplier assessments, including aspects with the potential to generate significant impacts on the environment and local communities, supplier commitment with climate change and the level of ethics and transparency that suppliers demonstrate in doing business. The new Sustainable Procurement Policy was approved in 2021, and is an essential part of our efforts to further establish CBA as a sustainability leader in our industry. This year the project continued to advance, so that evaluation standards have already been established for each ESG category in order to be able to rank our suppliers. Plotting critical suppliers for the company was also performed and the task of evaluating ESG performance by these suppliers has already started. It is expected that in coming years this assessment will cover all our suppliers and support us in decision making of which suppliers we wish to work with, evaluating climate change aspects, among others. This project will be concluded in 2025.
Investment in R&D	Yes	R&D is one of the most important items in CBA's strategy to ensure reduced emissions in conjunction with efficiency improvements and financial gains. Since 2018 we have a strategy with targets for reducing greenhouse gases inside our operating stages (In 2021, we have targets to Refinery, Smelters, Casthouse and Metalex). We annually update projects that can help us achieve this goal and this is done with the R&D and Technology team. One example is the Upgrading Smelter technology, which despite having a high initial investment allows us future financial gains and significant reductions in GHG emissions (can lead to a 20% reduction in our smelting plants that currently represents 70% of CBA's entire emissions). The project was started as a pilot in 2018 and it is expected to be completed by the end of 2025, and is part of the actions to obtain a reduced GHG emission by 2030. We currently have 150 cells that already passed through the process of adapting the technology.
Operations	Yes	We evaluate all the projects that improve efficiency of operations and also reduce GHG emissions. These projects are included in our medium-term strategy. As an example, fuzzy logic is an advanced control system that performs an analysis of multiple inputs and action on multiple outputs continuously, from the viewpoint of the behavior by the best operators in industrial processes. The fuzzy logic implementation project ensured a better operational performance of the calcinators, reduced GHG emission and reduced energy use by this equipment. In 2019, the system reflected a 0.53% reduction in the specific use of natural gas. Applying this advanced control system in the Alumina refinery brought higher efficiency with less variability, more competitive production costs, better performance of fuel use (oil and natural gas) and consequently, reduction of GHG emissions. The project was replicated in the Casting stage in 2020. In the production of caster rolls, existing controls were limited by the fact that they analyze one single input and act on one output at a time. Their replacement by multivariable controls based on fuzzy logic allowed reduced variability in the controller response, productivity gains and also operational improvements. Focusing on the redesign of the temperature control strategy in one of the caster melting furnaces during the loading and pouring stages (by monitoring temperature measurement at various points of the basin), it was possible to achieve a 20% drop in specific use of natural gas. Since the beginning of the first uses by this software in 2017, this initiative has already led to a reduction of over 545 tons in fuel oil and over 4.7 million m ³ in natural gas needs, equivalent to 11.6 thousand tons of CO ₂ e. Projects that involve recycling processes are also important to reduce the carbon footprint of CBA products. Here CBA is committed to increase the ratio of aluminum recycled from industrial and end-of-life scrap at Metalex to 80%, to increase the ratio of aluminum recycled from industrial and end-of-life scrap in billet production at the Alumínio (SP) plant to 50% and to recycle 40,000 metric tons of cartons and flexible packaging per year by 2030.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Direct costs Indirect costs Capital expenditures Capital allocation Access to capital	Climate-related risks and opportunities have influenced direct costs with the strategy of reducing use of raw materials and improving process efficiency In our 2030 ESG Strategy (time span: 10 years) we have a lever to develop our climate change objectives: (i) Reduce by 40% the indicator of CO ₂ e emissions (on average of the melts from mining) – In 2022, we saw a 26.1% reduction in emissions as of 2019 (base year); (ii) Obtain a carbon neutral product line available for clients; (iii) Structure carbon credit generation programs in partnership with Reservas Votorantim. Taking care of biodiversity –Reflora CBA; (iv) Define the path for neutralizing emissions by 2050 (Recently we had SBTi approval of our new emissions targets for scopes 1, 2 and 3); (v) Define a plan to adapt to climate change. As part of our planning structure, every year we carry out our PE (Strategic Planning), which provides a projection of CBA's investments over the next 5 years. Within this analysis, all the projects with potential for implementing are taken into account and within this portfolio that is evaluated are our project opportunities focused on reducing GHG emissions. In 2021 CBA went public on the São Paulo Stock Exchange (B3) and floated part of its shares in the market. In our strategy to allocate the sum received by the IPO, the company decided to invest the proceeds obtained through the Initial Offering to finance the Company's organic growth for the next two years and will be directed to the following projects (capital allocation): (i) upgrading of furnace room technology; (ii) dry disposal of waste; (iii) production of additional aluminum from recycling; and (iv) additional production of primary aluminum. Due to the IPO CBA received R\$ 663.385,80 (net), to be used 70% for organic growth, and 30% to inorganic growth (M&A). Climate change also influenced indirect costs (Time span: annual) with the Sustainability area budget to participate in training, events and commitment actions related to climate change. In 2022, CBA's participation in the disclosure of emissions by the Public Register of the GHG Protocol (investment: R\$13.000). In 2022, R\$ 16,000 was spent for studies on internal carbon pricing and another R\$ 25,000 also spent for participation in the CDP Benchmark club. This year the company has paid a consultant to analyze its carbon footprint calculation methodology (Investment: R\$52,000). Regarding access to capital, In September 2021 CBA obtained a revolving credit facility of US\$ 100 million to replace a US\$ 200 million credit facility in favor of Votorantim S.A., to which CBA was party. Securing this facility underlines our commitment for reducing greenhouse gas (GHG) emissions by our operations—the agreement contains sustainability-linked pricing terms requiring annual emission reductions by 2025. In December CBA also carried out its first issue of debentures for a total of R\$ 230 million. The debentures were issued as green bonds under a framework which consulting firm Sitawt reviewed and confirmed as being aligned with green bond principles, as the net proceeds will be used toward projects aiming to improve environmental performance by CBA's production facilities. The debentures mature on June 15, 2029 and will be amortized in equal instalments on June 15, 2028 and December 15, 2028. In addition, the Brazilian Federal Development Bank (BNDES) disbursed R\$ 79 million under a loan primarily used to maintain production capacity and modernizing the Alumínio Plant. This was the last disbursement under a loan agreement entered into in 2019 and maturing in 2034 Climate change also influenced capital expenditures with the approval of projects potentially able to reduce greenhouse gas emissions. As planned in the ESG Strategy, R\$ 990 million has also been planned in projects to be implemented by 2030 and aimed to reduce GHG emissions.

C3.5

(C3.5) In your organization’s financial accounting, do you identify spending/revenue that is aligned with your organization’s climate transition?

	Identification of spending/revenue that is aligned with your organization’s climate transition	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy
Row 1	Yes, we identify alignment with our climate transition plan	<Not Applicable>

C3.5a

(C3.5a) Quantify the percentage share of your spending/revenue that is aligned with your organization’s climate transition.

Financial Metric

CAPEX

Type of alignment being reported for this financial metric

Alignment with our climate transition plan

Taxonomy under which information is being reported

<Not Applicable>

Objective under which alignment is being reported

<Not Applicable>

Amount of selected financial metric that is aligned in the reporting year (unit currency as selected in C0.4)

8800000000

Percentage share of selected financial metric aligned in the reporting year (%)

18

Percentage share of selected financial metric planned to align in 2025 (%)

18

Percentage share of selected financial metric planned to align in 2030 (%)

17

Describe the methodology used to identify spending/revenue that is aligned

The indicator was calculated taking into account the investment in projects that are linked to the company's climate mitigation and adaptation strategy, as well as considering the company's investments in the acquisition of renewable energy. The evaluated projects were mapped within the company's strategic planning, which had investment forecasts up to the year 2026 (the strategic planning looks five years ahead into the future), so no investments were added between 2027 and 2030. The calculation performed consisted of summing the investments in climate transition projects and renewable electricity over the required time horizons and dividing it by the total revenue of the evaluated period. The calculation is an estimate and relied on the use of assumptions for projected data (e.g., constant annual energy investment).

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Absolute target

Intensity target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Is this a science-based target?

Yes, and this target has been approved by the Science Based Targets initiative

Target ambition

Well-below 2°C aligned

Year target was set

2021

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

<Not Applicable>

Base year

2018

Base year Scope 1 emissions covered by target (metric tons CO2e)

128014

Base year Scope 2 emissions covered by target (metric tons CO2e)

7502

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)

<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

135516

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

9

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

33

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1:

Purchased goods and services (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)

<Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

10

Target year

2030

Targeted reduction from base year (%)

35

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

88085.4

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

126032

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

0

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

126032

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

19.9955303116553

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

This target covers scope 1 and 2 emissions and for the following units: Metalex, Itapissuma, Mining (Miraí, Itamarati de Minas e Poços de Caldas units) and Alumínio (only the casthouse and downstream steps are considered).

Plan for achieving target, and progress made to the end of the reporting year

This target covers about 10% of CBA's gross emissions, and for its reduction, we are considering process improvements and support from projects of the competitiveness management area and also in the engineering area.

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

Target reference number

Abs 2

Is this a science-based target?

Yes, and this target has been approved by the Science Based Targets initiative

Target ambition

2°C aligned

Year target was set

2021

Target coverage

Company-wide

Scope(s)

Scope 3

Scope 2 accounting method

<Not Applicable>

Scope 3 category(ies)

Category 1: Purchased goods and services

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Category 4: Upstream transportation and distribution

Category 9: Downstream transportation and distribution

Base year

2019

Base year Scope 1 emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 2 emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)

1261594

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)

66790

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

105388

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

7523

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)

1441295

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

1441295

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

<Not Applicable>

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

<Not Applicable>

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)

60.8

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

3.2

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)

5.1

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)

0.4

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)

<Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

69.4

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

69.4

Target year

2030

Targeted reduction from base year (%)

13.5

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

1246720.175

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)

971250

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)

51090

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

122653

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

42014

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)

1187008

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

1187008

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

130.688541027854

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

This target covers scope 3 emissions and for the following units all the CBA units from aluminium business. In 2022, CBA had an increase in scope 3 (Categories 4 and 9), mainly due to the improvement of the maturity in the calculation of emissions in this scope

Plan for achieving target, and progress made to the end of the reporting year

Within the scope 3 category, the most representative is category 1, which deals with the purchase of goods and services, and which of the reported categories represents 82% of our scope 3 emissions in 2022. Within this category, our largest source of emission is the purchase of ingot that we mainly use in the Metalex, Alux and Itapissuma units, which have only the casthouse and downstream stages. In 2022, CBA deepened its discussions regarding the purchase of ingots with the sales team, in order to train and support those responsible for the ingot procurement process. Today, CBA considers the ingot emission performance in the purchasing stage and has an internal target linked to the variable remuneration of the team involved to reduce the average carbon footprint of purchased ingots. This is an initiative that was created to support the decarbonization of CBA's operations and contribute to the achievement of its Scope 3 target approved by the SBTi (Science Based Targets initiative). With the Sustainable Supply project, the idea is to draw a rule that limits the purchase of ingots based on their carbon footprint performance, and this will be the main initiative to reduce emissions in this scope. Today, the company uses the CRU emissions platform to assess the emission performance of its aluminum ingot suppliers, and as the next steps, it plans to start collecting primary data from its suppliers through the Sustainable Supply program. Note: Today in the market, the carbon fluctuates between 3.5tCO2e/t ingot and 28tCO2e/t ingot

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

C4.1b**(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).****Target reference number**

Int 1

Is this a science-based target?

Yes, and this target has been approved by the Science Based Targets initiative

Target ambition

Well-below 2°C aligned

Year target was set

2021

Target coverage

Company-wide

Scope(s)

Scope 1
Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

<Not Applicable>

Intensity metric

Metric tons CO2e per metric ton of aluminum

Base year

2018

Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)

3.65

Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)

0.04

Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for total Scope 3 (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

3.7

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

91

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

67

% of total base year emissions in Scope 3, Category 1: Purchased goods and services covered by this Scope 3, Category 1: Purchased goods and services intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 2: Capital goods covered by this Scope 3, Category 2: Capital goods intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution covered by this Scope 3, Category 4: Upstream transportation and distribution intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 5: Waste generated in operations covered by this Scope 3, Category 5: Waste generated in operations intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 8: Upstream leased assets covered by this Scope 3, Category 8: Upstream leased assets intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution covered by this Scope 3, Category 9: Downstream transportation and distribution intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 10: Processing of sold products covered by this Scope 3, Category 10: Processing of sold products intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 11: Use of sold products covered by this Scope 3, Category 11: Use of sold products intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products covered by this Scope 3, Category 12: End-of-life treatment of sold products intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 13: Downstream leased assets covered by this Scope 3, Category 13: Downstream leased assets intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 14: Franchises covered by this Scope 3, Category 14: Franchises intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 15: Investments covered by this Scope 3, Category 15: Investments intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Other (upstream) covered by this Scope 3, Other (upstream) intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Other (downstream) covered by this Scope 3, Other (downstream) intensity figure

<Not Applicable>

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this total Scope 3 intensity figure

<Not Applicable>

% of total base year emissions in all selected Scopes covered by this intensity figure

91

Target year

2030

Targeted reduction from base year (%)

40

Intensity figure in target year for all selected Scopes (metric tons CO2e per unit of activity) [auto-calculated]

2.22

% change anticipated in absolute Scope 1+2 emissions

5

% change anticipated in absolute Scope 3 emissions

0

Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)

3.51

Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)

0.02

Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for total Scope 3 (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

3.53

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

11.4864864864865

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

This target used the SDA scenario (Aluminium ambition traced by SBTi to aluminium specific companies). This target covers only the refinery and smelter steps (Both phases represent more than 85% of CBA's absolute emissions).

Plan for achieving target, and progress made to the end of the reporting year

This target count with 2 big projects to support its reduction path (Biomass boiler and smelters technology upgrade. Until now we could achieve 4.5% of emissions reductions compared to our base year (Target to reduce 40%).

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Net-zero target(s)

Other climate-related target(s)

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number

Oth 1

Year target was set

2020

Target coverage

Company-wide

Target type: absolute or intensity

Intensity

Target type: category & Metric (target numerator if reporting an intensity target)

Resource consumption or efficiency	Other, please specify (GEE emissions)
------------------------------------	---------------------------------------

Target denominator (intensity targets only)

metric ton of aluminum

Base year

2019

Figure or percentage in base year

4.02

Target year

2030

Figure or percentage in target year

2.45

Figure or percentage in reporting year

2.97

% of target achieved relative to base year [auto-calculated]

66.8789808917197

Target status in reporting year

Underway

Is this target part of an emissions target?

Yes. This target is part of the greenhouse gas emissions management pillar of CBA's ESG 2030 strategy

Is this target part of an overarching initiative?

Other, please specify (CBA's 2030 ESG Strategy and Global Compact "Net Zero ambition")

Please explain target coverage and identify any exclusions

This targets includes mining, refinery, smelters, casthouse and support areas emissions (scope 1 and 2). It includes category 1 (aluminium ingot purchase) scope 3 emissions. Includes the following plants: Aluminio (SP), Alux (SP), Metalex (SP) and Mining Plants (Miraí, Itamarati de Minas and Poços de Caldas).

Plan for achieving target, and progress made to the end of the reporting year

In the Casting area, the main issue is related to the consumption of natural gas for heating the ovens. An annual consumption target is determined based on expectations of scrap use and production. This target is linked to the monetary reward of eligible employees (leaders at all levels) whose worked on Casting.

CBA has managed to structure a trajectory to reduce 40% of its emissions intensity in the production of cast products, and is currently studying new technologies and evaluating partnerships with other institutions to be able to expand its emissions reduction trajectory until reaching a net-zero scenario.

List the actions which contributed most to achieving this target

<Not Applicable>

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number

NZ1

Target coverage

Company-wide

Absolute/intensity emission target(s) linked to this net-zero target

Abs1
Int1

Target year for achieving net zero

2050

Is this a science-based target?

No, but we are reporting another target that is science-based

Please explain target coverage and identify any exclusions

The CBA's neutralization trajectory encompasses all operational control units of the Company. Only the Alux and BU Energia units are not covered by this projection as they are not under the management of the company until after the construction of the neutralization scenario. However, both, in terms of absolute emissions, are not significant when compared to the emissions covered by the structured target. The commitment to Net-zero may be revised in the future to include the new units.

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?

Yes

Planned milestones and/or near-term investments for neutralization at target year

By 2030, the company already has within its transition portfolio mature projects, implemented or under implementation, to support the decarbonization process. Among them, initiatives such as biomass boiler implementation, increased recycling, modernization of electrolysis technology, use of 100% renewable electricity, and energy efficiency projects are mentioned. To support the achievement of NET-ZERO, the company has already been evaluating new emerging technologies in the market, such as carbon capture and inert anode. With the purpose of neutralizing residual emissions (limited to 9% as recommended by SBTi for the aluminum sector), the company is already investing in two carbon credit generation projects ("Reflora CBA" and "REDD+ Cerrado")

Planned actions to mitigate emissions beyond your value chain (optional)

CBA has been working on two main fronts with the purpose of impacting emissions in its value chain. The first, focused on suppliers, is carried out through its "Sustainable Procurement" project, which aims to assess and support its suppliers in the climate agenda and other ESG indicators. The second front is customer-oriented, where the company offers to collaborate in the development of new sustainable products and solutions, which bring benefits to the climate agenda and other ESG indicators.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	9	40065.45
To be implemented*	6	195978.61
Implementation commenced*	1	132441
Implemented*	2	230031.28
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Low-carbon energy consumption	Solid biofuels
-------------------------------	----------------

Estimated annual CO2e savings (metric tonnes CO2e)

228000

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

78000000

Investment required (unit currency – as specified in C0.4)

0

Payback period

<1 year

Estimated lifetime of the initiative

Ongoing

Comment

In 2020, CBA implemented the biomass boiler in its refinery process. This boiler aims to provide steam generation previously produced by burning Natural Gas and fuel oil in conventional boilers. In 2020 the boiler started its activities in March and had a gradual increase in steam production until June, when in fact the boiler started to operate at full capacity.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	The CBA project approval process has a priority involving regulatory analysis.
Financial optimization calculations	CBA project approval process has a priority involving financial calculations and technical expertise.
Internal incentives/recognition programs	Our variable compensation has incentive targets related to reduced emissions.
Employee engagement	The variable cost budget by the Sustainability area involves training and commitment activities on climate change.
Internal price on carbon	In 2021 CBA defined its internal carbon price, so that this new concept should help our leadership in making decisions on projects with emission potential.
Dedicated budget for low-carbon product R&D	CBA's strategic planning considers a budget reserved for our CAPEX projects over the next 5 years.
Dedicated budget for energy efficiency	The CBA strategy includes energy efficiency projects.
Other (Purchase of renewable energy certificates)	Budget reserved for purchasing renewable energy certificates.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

Other, please specify (Today we don't have a specific scale of low carbon products inside the aluminium sector. A study made by Carbon Trust mentioned that inside our sector products with low carbon have a intensity emissions indicator above 4tCO2e/t ingot)

Type of product(s) or service(s)

Aluminum	Other, please specify (All CBA products)
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Description of product(s) or service(s)

ALENNium – THE SEAL FOR THE NEW MILLENNIUM CBA's new seal, unveiled in November 2022, represents our commitment to supplying low-carbon aluminum—the aluminum of the future. The new seal can be displayed on products made with our low-carbon aluminum—less than 4 tons of CO2e per ton of molten aluminum. Consumers can now quickly identify products that are helping to build a more sustainable world for everyone in the next millennium. Alennium is another step in creating the future we aspire for—a future built through partnership and respect for the environment and society

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Other, please specify (IAI methodology (Tier 2 emissions))

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Cradle-to-gate

Functional unit used

tCO2e/t product

Reference product/service or baseline scenario used

Alennium Brand

Life cycle stage(s) covered for the reference product/service or baseline scenario

Cradle-to-gate

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

7.66

Explain your calculation of avoided emissions, including any assumptions

This calculation considered a comparison between the intensity of emissions in the electrolysis stage (the most carbon intensive phase of aluminum production) between the CBA result in 2022 (3.03 tCO2e/t Al) with the world average reported by the CRU in 2022 (10.69 tCO2e/t Al). Calculation explanation: 10.69 (CRU data) - 3.03 (CBA data) = 7.66 (Result)

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

99.79

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?

Yes, an acquisition

Name of organization(s) acquired, divested from, or merged with

Alux do Brasil

Details of structural change(s), including completion dates

On November 30, 2022, CBA completed the acquisition of the remaining 20% equity interest in Alux do Brasil for R\$ 98 million. This followed our acquisition of 80% of Alux for R\$ 110 million in January this year, with approval from Brazil's antitrust regulator, CADE. The acquisition is aligned with our long-term strategy to expand our aluminum recycling capacity and will deliver on our commitment to consistently reduce our carbon footprint. It will also allow us to enter a new business segment of selling secondary aluminum alloys.

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in boundary	In 2022 CBA completed the acquisition and integration of Alux do Brasil in another major step in its recycling strategy. CBA had acquired an 80% equity interest in 2021, and completed the acquisition of the remaining 20% in November 2022 CBA has sourced its entire electricity requirement from hydroelectric power plants for many years. These plants were previously managed by Votorantim Energia (now renamed Auren) under service agreements, but in 2022 were merged into CBA as part of an ongoing reorganization of Votorantim S.A., to give portfolio companies greater independence With these changes, CBA started to include these units in its greenhouse gas emissions inventory.

C5.1c

(C5.1c) Have your organization's base year emissions and past years' emissions been recalculated as a result of any changes or errors reported in C5.1a and/or C5.1b?

	Base year recalculation	Scope(s) recalculated	Base year emissions recalculation policy, including significance threshold	Past years' recalculation
Row 1	No, because the impact does not meet our significance threshold	<Not Applicable>	The newly included units represent only 0.7% of CBA's total emissions.	No

C5.2

(C5.2) Provide your base year and base year emissions.

Scope 1

Base year start

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO₂e)

1357065.062

Comment

These GHG emissions refer to the Aluminum, Energy and Nickel Businesses.

Scope 2 (location-based)

Base year start

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO₂e)

277855.274

Comment

These GHG emissions refer to the Aluminum, Energy and Nickel Businesses

Scope 2 (market-based)

Base year start

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO₂e)

6758.789

Comment

These GHG emissions refer to the Aluminum, Energy and Nickel Businesses

Scope 3 category 1: Purchased goods and services

Base year start

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO₂e)

971250.17

Comment

These GHG emissions refer to the Aluminum, Energy and Nickel Businesses

Scope 3 category 2: Capital goods**Base year start**

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

0

Comment

This category is not relevant to CBA's activities.

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)**Base year start**

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

51089.8

Comment

These GHG emissions refer to the Aluminum, Energy and Nickel Businesses

Scope 3 category 4: Upstream transportation and distribution**Base year start**

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

93738.25

Comment

These GHG emissions refer to the Aluminum, Energy and Nickel Businesses

Scope 3 category 5: Waste generated in operations**Base year start**

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

0

Comment

This category is not relevant to CBA's activities.

Scope 3 category 6: Business travel**Base year start**

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

355.48

Comment

This category is not relevant to CBA, but it is calculated due to specific reporting requirements from the Company.

Scope 3 category 7: Employee commuting**Base year start**

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

0

Comment

This category is not relevant to CBA's activities.

Scope 3 category 8: Upstream leased assets**Base year start**

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

0

Comment

This category is not relevant to CBA's activities.

Scope 3 category 9: Downstream transportation and distribution**Base year start**

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

42014.1

Comment

These GHG emissions refer to the Aluminum, Energy and Nickel Businesses

Scope 3 category 10: Processing of sold products**Base year start**

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

191149.97

Comment

These GHG emissions refer to the Aluminum, Energy and Nickel Businesses

Scope 3 category 11: Use of sold products**Base year start**

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

0

Comment

This category is not relevant to CBA's activities.

Scope 3 category 12: End of life treatment of sold products**Base year start**

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

0

Comment

This category is not relevant to CBA's activities.

Scope 3 category 13: Downstream leased assets**Base year start**

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

0

Comment

This category is not applicable to CBA.

Scope 3 category 14: Franchises

Base year start

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

0

Comment

This category is not applicable to CBA.

Scope 3 category 15: Investments

Base year start

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

0

Comment

This category is not relevant to CBA's activities.

Scope 3: Other (upstream)

Base year start

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

0

Comment

This category is not relevant to CBA's activities.

Scope 3: Other (downstream)

Base year start

January 1 2022

Base year end

December 31 2022

Base year emissions (metric tons CO2e)

0

Comment

This category is not relevant to CBA's activities.

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Brazil GHG Protocol Programme

We used the Brazil GHG Protocol Program. The step of choosing the units was carried out through operational control using the relevance approach to exclude processes. For Scope 2, the purchase choice methodology was adopted, as our main source of energy is in-house hydroelectric plants. For scope 3, we chose to report the following category: Purchased goods and services (Category 1 - 52.22% of scope 3), Fuel and energy related activities (Category 3 - 4.24% of scope 3), Upstream Transportation (Category 4 - 6.51% of scope 3) and Investments (Category 15 - 5.65% of scope 3). These categories have a total of 68.62% of CBA's scope 3 and were chosen as they are categories that CBA has the power to manage over the indicators to establish emission reduction goals.

C6. Emissions data

C6.1

(C6.1) What were your organization’s gross global Scope 1 emissions in metric tons CO2e?

Reporting year
Gross global Scope 1 emissions (metric tons CO2e)
1357065
Start date
January 1 2022
End date
December 31 2022
Comment
These GHG emissions refer to the Aluminum, Nickel and Energy Businesses.

Past year 1
Gross global Scope 1 emissions (metric tons CO2e)
1158608.86
Start date
January 1 2021
End date
December 31 2021
Comment
These GHG emissions refer to the Aluminum, Nickel and Energy Businesses.

Past year 2
Gross global Scope 1 emissions (metric tons CO2e)
1067178.48
Start date
January 1 2020
End date
December 31 2020
Comment
These GHG emissions refer to the Aluminum, Nickel and Energy Businesses.

Past year 3
Gross global Scope 1 emissions (metric tons CO2e)
1297627.66
Start date
January 1 2019
End date
December 31 2019
Comment
These GHG emissions refer to the Aluminum, Nickel and Energy Businesses.

Past year 4
Gross global Scope 1 emissions (metric tons CO2e)
1370934.33
Start date
January 1 2018
End date
December 31 2018
Comment
These GHG emissions refer to the Aluminum, Nickel and Energy Businesses.

C6.2

(C6.2) Describe your organization’s approach to reporting Scope 2 emissions.

Row 1
Scope 2, location-based
We are reporting a Scope 2, location-based figure
Scope 2, market-based
We are reporting a Scope 2, market-based figure
Comment
CBA chose to report its scope 2 with a market-based approach. This decision was consolidated based on the fact that CBA has 23 hydroelectric plants with a capacity to produce 100% of its own electricity needs (value subject to changes due to climate issues and rain regimes in the region of our plants). Because of our clean energy sources, we have achieved great reductions in GHG emissions compared to the market.

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO₂e?**Reporting year****Scope 2, location-based**

277855

Scope 2, market-based (if applicable)

6759

Start date

January 1 2022

End date

December 31 2022

Comment

These GHG emissions refer to the Aluminum, Energy and Nickel Businesses. In 2022 renewable electric energyour was 100%

Past year 1**Scope 2, location-based**

799535.14

Scope 2, market-based (if applicable)

6988.661

Start date

January 1 2021

End date

December 31 2021

Comment

These GHG emissions refer to the Aluminum and Nickel Businesses. In 2021 our hydroelectric plants were able to supply 82.7% of our energy needs. Following the calculation methodology and the GHG Protocol Brazil tool, the emission factor by the national grid doubled in 2021 as the year that portrays the impacts on energy generation in 2020 due to the Covid-19 pandemic.

Past year 2**Scope 2, location-based**

345642.994

Scope 2, market-based (if applicable)

72503.506

Start date

January 1 2020

End date

December 31 2020

Comment

These GHG emissions refer to the Aluminum and Nickel Businesses. In 2020 our hydroelectric plants were able to supply 81.4% of our energy needs.

Past year 3**Scope 2, location-based**

415127.7

Scope 2, market-based (if applicable)

9894.05

Start date

January 1 2019

End date

December 31 2019

Comment

These GHG emissions refer to the Aluminum and Nickel Businesses. In 2019 our hydroelectric plants were able to supply 98% of our energy needs.

Past year 4**Scope 2, location-based**

438518.05

Scope 2, market-based (if applicable)

17907.99

Start date

January 1 2018

End date

December 31 2018

Comment

These GHG emissions refer to the Aluminum and Nickel Businesses. In 2018 our hydroelectric plants were able to supply 96% of our energy needs.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?
Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1, Scope 2, or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source of excluded emissions

Sorocaba Facility, Distribution Center, Barro Alto Unit and Corporative Office

Scope(s) or Scope 3 category(ies)

- Scope 1
- Scope 2 (location-based)
- Scope 2 (market-based)
- Scope 3: Purchased goods and services
- Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)
- Scope 3: Upstream transportation and distribution
- Scope 3: Business travel
- Scope 3: Downstream transportation and distribution
- Scope 3: Processing of sold products

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of Scope 3 emissions from this source

Emissions are not relevant

Date of completion of acquisition or merger

<Not Applicable>

Estimated percentage of total Scope 1+2 emissions this excluded source represents

0.5

Estimated percentage of total Scope 3 emissions this excluded source represents

0.5

Explain why this source is excluded

These units were removed as they were deemed insignificant in terms of emissions (Together, they represent less than 1% of CBA's emissions).

Explain how you estimated the percentage of emissions this excluded source represents

In 2020, together with a hired consultancy, it was necessary to calculate the emissions of all CBA units to structure our targets approved by the SBTi (Science Based Targets initiative). Through this assessment, it was possible to exclude units that had minimal emissions and were deemed insignificant in terms of their contribution.

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

971250

Emissions calculation methodology

Average data method

Average product method

Other, please specify (To calculate scope 3 category 1 emissions factors from the IPCC 2007 GWP 100a report were used, together with information from the "Ecoinvent 3 - Emission Factor" database , the "Europeum Aluminum ENVIRONMENTAL PROFILE" report and the "DEFRA 2020)

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

The data was calculated using previously reported emission factors and suppliers did not submit primary emissions data. In 2021, IAI (International Aluminium Institute) carried out a study on scope 3 emissions specific to the aluminum sector.

This category is very significant for the sector because of the carbon footprint of aluminum ingots that are purchased on the market, along with the carbon footprint of all inputs consumed by the production process (Example: caustic soda, lime, among others).

At the end of the study, they indicated that the relevant categories for the sector are categories 1, 3, 4, 9 and 10. This category represented 72% of CBA's 2022 scope 3 emissions (considering relevant categories).

Capital goods

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

In 2021, IAI (International Aluminium Institute) carried out a study on scope 3 emissions specific to the aluminium sector. At the end of the study, they indicated that the relevant categories for the sector are categories 1, 3, 4, 9 and 10. Compared with the emissions of the categories that are significant (mainly category 1, purchase of consumer goods) this category proved to be of little relevance for the aluminum sector. For CBA, it was estimated that this category represented 0.85% of the company's scope 3 emissions in 2019 (study carried out to structure the SBTi target).

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

51090

Emissions calculation methodology

Average data method

Other, please specify (To calculate scope 3 category 3 emissions factors from the IPCC 2007 GWP 100a report were used, together with information from the "Ecoinvent 3 - Emission Factor" database , the "Europeum Aluminum ENVIRONMENTAL PROFILE" report and the "DEFRA 2020".)

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

The data was calculated using previously reported emission factors and suppliers did not submit primary emissions data. In 2021, IAI (International Aluminium Institute) carried out a study on scope 3 emissions specific to the aluminum sector. At the end of the study, they indicated that the relevant categories for the sector are categories 1, 3, 4, 9 and 10. This category represented 4% of CBA's 2022 scope 3 emissions (considering relevant categories).

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

93738

Emissions calculation methodology

Average data method

Distance-based method

Other, please specify (Brazil GHG Protocol Program - upstream transportation)

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

In 2021, IAI (International Aluminium Institute) carried out a study on scope 3 emissions specific to the aluminum sector. At the end of the study, they indicated that the relevant categories for the sector are categories 1, 3, 4, 9 and 10. This category represented 7% of CBA's 2022 scope 3 emissions (considering relevant categories).

Waste generated in operations

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO₂e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

In 2021, IAI (International Aluminium Institute) carried out a study on scope 3 emissions specific to the aluminum sector. At the end of the study, they indicated that the relevant categories for the sector are categories 1, 3, 4, 9 and 10. Compared with the emissions of the categories that are significant (mainly category 1, purchase of consumer goods) this category proved to be of little relevance for the aluminum sector. For CBA, it was estimated that this category represented 0.07% of the company's scope 3 emissions in 2019 (study carried out to structure the SBTi target)

Business travel

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO₂e)

355

Emissions calculation methodology

Distance-based method

Other, please specify (Brazil GHG Protocol Program - upstream transportation)

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

This category is not relevant to CBA in emissions results, but it is calculated due to specific reporting requirements from the Company. This category represented 0.003% of CBA's 2022 scope 3 emissions

Employee commuting

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO₂e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

In 2021, IAI (International Aluminium Institute) carried out a study on scope 3 emissions specific to the aluminum sector. At the end of the study, they indicated that the relevant categories for the sector are categories 1, 3, 4, 9 and 10. Compared with the emissions of the categories that are significant (mainly category 1, purchase of consumer goods) this category proved to be of little relevance for the aluminum sector. For CBA, it was estimated that this category represented 0.35% of the company's scope 3 emissions in 2019 (study carried out to structure the SBTi target)

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO₂e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

In 2021, IAI (International Aluminium Institute) carried out a study on scope 3 emissions specific to the aluminum sector. At the end of the study, they indicated that the relevant categories for the sector are categories 1, 3, 4, 9 and 10. Compared with the emissions of the categories that are significant (mainly category 1, purchase of consumer goods) this category proved to be of little relevance for the aluminum sector. For CBA, it was estimated that this category represented 0.00% of the company's scope 3 emissions in 2019 (study carried out to structure the SBTi target)

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO₂e)

42014

Emissions calculation methodology

Average data method

Distance-based method

Other, please specify (Brazil GHG Protocol Program - upstream transportation)

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

In 2021, IAI (International Aluminium Institute) carried out a study on scope 3 emissions specific to the aluminum sector. At the end of the study, they indicated that the relevant categories for the sector are categories 1, 3, 4, 9 and 10. This category represented 3% of CBA's scope 3 emissions (considering relevant categories).

Processing of sold products

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO₂e)

191150

Emissions calculation methodology

Average data method

Other, please specify (To calculate scope 3 category 10 emissions factors from the IPCC 2007 GWP 100a report were used, together with information from the "Ecoinvent 3 - Emission Factor" database , the "Europeum Aluminum ENVIRONMENTAL PROFILE" report)

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

In 2021, IAI (International Aluminium Institute) carried out a study on scope 3 emissions specific to the aluminum sector. At the end of the study, they indicated that the relevant categories for the sector are categories 1, 3, 4, 9 and 10. This category represented 14% of CBA's scope 3 emissions (considering relevant categories).

Use of sold products

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO₂e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

In 2021, IAI (International Aluminium Institute) carried out a study on scope 3 emissions specific to the aluminum sector. At the end of the study, they indicated that the relevant categories for the sector are categories 1, 3, 4, 9 and 10. Compared with the emissions of the categories that are significant (mainly category 1, purchase of consumer goods) this category proved to be of little relevance for the aluminum sector. For CBA, it was estimated that this category represented 0.48% of the company's scope 3 emissions in 2019 (study carried out to structure the SBTi target)

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO₂e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

In 2021, IAI (International Aluminium Institute) carried out a study on scope 3 emissions specific to the aluminum sector. At the end of the study, they indicated that the relevant categories for the sector are categories 1, 3, 4, 9 and 10. Compared with the emissions of the categories that are significant (mainly category 1, purchase of consumer goods) this category proved to be of little relevance for the aluminum sector.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

CBA doesn't have this type of activity, so this category are not applicable.

Franchises

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

CBA doesn't have this type of activity, so this category are not applicable.

Investments

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

In 2021, IAI (International Aluminium Institute) carried out a study on scope 3 emissions specific to the aluminum sector. At the end of the study, they indicated that the relevant categories for the sector are categories 1, 3, 4, 9 and 10. This category represented 1,3% of CBA's scope 3 emissions (considering relevant categories). Compared with the emissions of the categories that are significant (mainly category 1, purchase of consumer goods) this category proved to be of little relevance for the aluminum sector.

Other (upstream)

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

No other upstream categories applicable to CBA were identified.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

No other downstream categories applicable to CBA were identified.

(C6.5a) Disclose or restate your Scope 3 emissions data for previous years.

Past year 1

Start date

January 1 2021

End date

December 31 2021

Scope 3: Purchased goods and services (metric tons CO2e)

2052237.613

Scope 3: Capital goods (metric tons CO2e)

0

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

36861.26

Scope 3: Upstream transportation and distribution (metric tons CO2e)

79650.09

Scope 3: Waste generated in operations (metric tons CO2e)

0

Scope 3: Business travel (metric tons CO2e)

0

Scope 3: Employee commuting (metric tons CO2e)

0

Scope 3: Upstream leased assets (metric tons CO2e)

0

Scope 3: Downstream transportation and distribution (metric tons CO2e)

31629.22

Scope 3: Processing of sold products (metric tons CO2e)

208228.64

Scope 3: Use of sold products (metric tons CO2e)

0

Scope 3: End of life treatment of sold products (metric tons CO2e)

0

Scope 3: Downstream leased assets (metric tons CO2e)

0

Scope 3: Franchises (metric tons CO2e)

0

Scope 3: Investments (metric tons CO2e)

0

Scope 3: Other (upstream) (metric tons CO2e)

0

Scope 3: Other (downstream) (metric tons CO2e)

0

Comment

N/A

Past year 2

Start date

January 1 2020

End date

December 31 2020

Scope 3: Purchased goods and services (metric tons CO2e)

1360462.55

Scope 3: Capital goods (metric tons CO2e)

0

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

67623.711

Scope 3: Upstream transportation and distribution (metric tons CO2e)

22232.344

Scope 3: Waste generated in operations (metric tons CO2e)

0

Scope 3: Business travel (metric tons CO2e)

0

Scope 3: Employee commuting (metric tons CO2e)

0

Scope 3: Upstream leased assets (metric tons CO2e)

0

Scope 3: Downstream transportation and distribution (metric tons CO2e)

0

Scope 3: Processing of sold products (metric tons CO2e)

0

Scope 3: Use of sold products (metric tons CO2e)

0

Scope 3: End of life treatment of sold products (metric tons CO2e)

0

Scope 3: Downstream leased assets (metric tons CO2e)

0

Scope 3: Franchises (metric tons CO2e)

0

Scope 3: Investments (metric tons CO2e)

0

Scope 3: Other (upstream) (metric tons CO2e)

0

Scope 3: Other (downstream) (metric tons CO2e)

0

Comment

N/A

Past year 3

Start date

January 1 2019

End date

December 31 2019

Scope 3: Purchased goods and services (metric tons CO2e)

1261593.78

Scope 3: Capital goods (metric tons CO2e)

0

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

66790.39

Scope 3: Upstream transportation and distribution (metric tons CO2e)

105387.66

Scope 3: Waste generated in operations (metric tons CO2e)

0

Scope 3: Business travel (metric tons CO2e)

0

Scope 3: Employee commuting (metric tons CO2e)

0

Scope 3: Upstream leased assets (metric tons CO2e)

0

Scope 3: Downstream transportation and distribution (metric tons CO2e)

0

Scope 3: Processing of sold products (metric tons CO2e)

0

Scope 3: Use of sold products (metric tons CO2e)

0

Scope 3: End of life treatment of sold products (metric tons CO2e)

0

Scope 3: Downstream leased assets (metric tons CO2e)

0

Scope 3: Franchises (metric tons CO2e)

0

Scope 3: Investments (metric tons CO2e)

0

Scope 3: Other (upstream) (metric tons CO2e)

0

Scope 3: Other (downstream) (metric tons CO2e)

0

Comment

This year we started monitoring scope 3 emissions due to our study to create an SBTi target (Science Based Targets Initiative).

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

Yes

C6.7a

(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	411622.07	When we compare our biogenic emissions from 2019 to 2022, we notice that there has been a large increase. This change is due to implementing the biomass boiler, which alone was responsible for biogenic emissions of 397,822.835 t CO2e in 2022.

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.000155

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

1363824

Metric denominator

unit total revenue

Metric denominator: Unit total

8800000000

Scope 2 figure used

Market-based

% change from previous year

11

Direction of change

Increased

Reason(s) for change

Acquisitions
Change in revenue
Change in boundary

Please explain

The main change was due to the acquisition of the Alux unit and the integration of Energy Business management into CBA's operations. This resulted in an increase in emissions covered in the Company's inventory.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?
Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	959752.13	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	9.69	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	3.15	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	1.95	IPCC Fifth Assessment Report (AR5 – 100 year)
PFCs	56.62	IPCC Fifth Assessment Report (AR5 – 100 year)
SF6	0.1	IPCC Fifth Assessment Report (AR5 – 100 year)
NF3	0	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/area/region.

Country/area/region	Scope 1 emissions (metric tons CO2e)
Brazil	1357065

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.
By business division
By facility
By activity

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
Aluminum Business. The Aluminum Business involves mining units, an integrated Aluminum Plant (Refinery, Smelters, Casting and Transformation), Alux, Itapissuma and Metalex plants.	1354316
Nickel Business. The Nickel Business has Niquelândia/GO and currently has no productive activities in recent years, and hence their needs are not very representative.	1101
Energy Business (Energy Generation Business)	1649

C7.3b

(C7.3b) Break down your total gross global Scope 1 emissions by business facility.

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Aluminum Plant - Refinery, Smelters, Casting and Transformation	1285588	-23.535007	-47.261304
Metalex - aluminum recycling unit for billet production	15681	-23.436855	-47.063855
Itapissuma Plant – Casting and Rolling mill	36191	-7.797339	-34.905503
Alux - aluminum recycling unit for ingot production	7842	-22.763351	-47.25489
Miraf Mining - This unit has mining and processing of bauxite	6239	-21.058433	-42.568312
Itamarati de Minas Mining - There was no mining (bauxite) at this unit in 2019.	152	-21.446461	-42.87897
Poços de Caldas Mining - This unit only does bauxite mining	2622	-21.823999	-46.634594
Niquelândia Mining – Nickel mining unit. Temporarily out of production.	1101	-14.345246	-48.441254
PCH Santa Helena	2	-23.579894	-47.43803
PCH Votorantim	1	-23.551855	-47.441791
CGH Boa Vista	0	-23.234761	-49.46298
CGH Rio Novo	0	-22.958622	-48.978208
PCH Porto Raso	8	-24.061844	-47.415683
UHE Alecrim	34	-24.081338	-47.476577
UHE Barra	7	-24.02315	-47.354897
UHE França	12	-23.941333	-47.19473
UHE Fumaça	7	-24.008977	-47.263872
UHE Itupararanga	36	-23.612036	-47.397094
PCH Jurupará	34	-23.962752	-47.390275
UHE Ourinhos	8	-23.068538	-49.837733
UHE Piraju	376	-23.154722	-49.380275
UHE Salto do Iporanga	11	-24.100527	-47.720491
UHE Salto do Rio Verdinho	68	-19.142855	-50.754158
UHE Serraria	3	-24.151719	-47.547383
UHE Sobragi	1041	-21.978913	-43.363408

C7.3c

(C7.3c) Break down your total gross global Scope 1 emissions by business activity.

Activity	Scope 1 emissions (metric tons CO2e)
Bauxite Mining	9013
Alumina Refinery	159366
Aluminum Smelter	1051009
Aluminum Casting	49898
Aluminum Transformation (rolling mill and extrusion)	10985
Scrap processing (Metalex)	15681
Scrap Processing (Alux)	7842
Nickel mining	1101
Support areas of the integrated plant in Alumínio (SP)	14332
Aluminium Casting and Transformation (rolling mill) in Itapissuma	36191
Energy Business	1649

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions , metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	1355417	<Not Applicable>	Aluminium and Nickel Business
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/area/region.

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Brazil	277855	6758

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

- By business division
- By facility
- By activity

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Aluminum Business. The Aluminum Business involves mining units, an integrated Aluminum Plant (Refinery, Smelters, Casting and Transformation), Alux, Itapissuma and Metalex plants.	275898	6759
Nickel Business. The Nickel Business has Niquelândia/GO and has no productive activities in recent years, and hence their needs are not very representative.	250	0
Energy Business.	1707	0

C7.6b

(C7.6b) Break down your total gross global Scope 2 emissions by business facility.

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Aluminum Plant - Refinery, Smelters, Casting and Transformation	272204	6758.789
Metalex - aluminum recycling unit for billet production	198	0
Itapissuma Plant – Casting and Rolling mill	3097	0
Alux - aluminum recycling unit for ingot production	105	0
Miraf Mining - This unit has mining and processing of bauxite	254	0
Itamarati de Minas Mining - There was no mining (bauxite) at this unit in 2019.	26	0
Poços de Caldas Mining - This unit only does bauxite mining	15	0
Niquelândia Mining – Nickel mining unit. Temporarily out of production.	250	0
PCH Santa Helena	0	0
PCH Votorantim	0	0
CGH Boa Vista	0	0
CGH Rio Novo	0	0
PCH Porto Raso	43	0
UHE Alecrim	268	0
UHE Barra	56	0
UHE França	434	0
UHE Fumaça	142	0
UHE Itupararanga	18	0
PCH Jurupará	0	0
UHE Ourinhos	71	0
UHE Piraju	54	0
UHE Salto do Iporanga	50	0
UHE Salto do Rio Verdinho	318	0
UHE Serraria	56	0
UHE Sobragi	195	0

C7.6c

(C7.6c) Break down your total gross global Scope 2 emissions by business activity.

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Bauxite Mining	294	0
Alumina Refinery	16032	6758.789
Aluminum Smelter	235588	0
Aluminum Casting	3816	0
Aluminum Transformation	8310	0
Scrap processing (Metalex)	198	0
Scrap Processing (Alux)	105	0
Nickel Mining	250	0
Support areas of the integrated plant in Aluminio (SP)	8457	0
Itapissuma	3097	0
Energy Business	1707	0

C7.7

(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

Not relevant as we do not have any subsidiaries

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO₂e.

	Scope 2, location-based, metric tons CO ₂ e	Scope 2, market-based (if applicable), metric tons CO ₂ e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	276148	6759	Aluminium and Nickel Business
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Increased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO ₂ e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	0	No change	0	This year the company achieved its goal of using 100% energy from renewable sources.
Other emissions reduction activities	0	No change	0	In last year report CBA already mentioned
Divestment	0	No change	0	N/A
Acquisitions	7841.6	Increased	0.57	Alux acquisition
Mergers	0	No change	0	N/A
Change in output	0	No change	0	N/A
Change in methodology	0	No change	0	N/A
Change in boundary	1647.5	Increased	0.12	The management of the Energy Business was transferred to CBA in 2022. As a result, the company began to track the emissions inventory of the unit, which increased the company's absolute emissions.
Change in physical operating conditions	169098.27	Increased	12	In 2022 CBA had a 0.7% production increase on its smelters, which ended up reflecting an increase in the company's absolute emissions. In 2021 smelters absolute emissions were 881,911.15 tCO ₂ e, while in 2022 they were at 1,051,009.42 t CO ₂ e, generating an increase of 169,098.27 t CO ₂ e, which reflected in an 12% increase of all CBA emissions. During 2022, the company underwent a furnace restart process, which is known for its emissions instability and requires time for process stabilization. Moreover, the company encountered challenges related to the quality of domestically sourced raw materials used in this process, resulting in an impact on emissions results for the year. Efforts are already underway to stabilize the electrolysis process, while the furnace restart process contributed to an increase in primary aluminum production at CBA. Absolute emissions calculation: 1,051,009.42 - 881,911.15 = 169,098.27 t CO ₂ e Percentage calculation: 169,098.27 / 1,363,823.851 (Total CBA emissions) = 12% (emission increase on smelter phase).
Unidentified	0	No change	0	N/A
Other	195775	Decreased	26.1	CBA has set a emissions reduction target as part of its ESG strategy, committing to reducing 40% of its greenhouse gas emissions in the production of cast products. In comparison to the 2019 baseline, the company has currently reduced 195,775 tons of carbon, resulting in an emissions intensity indicator decrease from 4.02 tCO ₂ e/t of cast aluminum to 2.97 tCO ₂ e/t of cast aluminum. This represents a reduction of 26.1% in emissions intensity.

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 35% but less than or equal to 40%

C8.2**(C8.2) Select which energy-related activities your organization has undertaken.**

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a**(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.**

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	Unable to confirm heating value	4794.73	1628471.02	1633265.75
Consumption of purchased or acquired electricity	<Not Applicable>	1535725.92	0	1535725.92
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	839914.76	0	839914.76
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	4828966	<Not Applicable>	4828966
Total energy consumption	<Not Applicable>	7209401.41	1628471.02	8837872.43

C-MM8.2a**(C-MM8.2a) Report your organization's energy consumption totals (excluding feedstocks) for metals and mining production activities in MWh.**

	Heating value	Total MWh
Consumption of fuel (excluding feedstocks)	Unable to confirm heating value	1596886.73
Consumption of purchased or acquired electricity	<Not Applicable>	1495325.92
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	839914.76
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	4828966
Total energy consumption	<Not Applicable>	8761093.41

C8.2b**(C8.2b) Select the applications of your organization's consumption of fuel.**

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c**(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.**

Sustainable biomass**Heating value**

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

CBA consumes 839,914.76 MWh of steam from biomass, but this steam is purchased from a partner

Other biomass**Heating value**

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

N/A

Other renewable fuels (e.g. renewable hydrogen)**Heating value**

Unable to confirm heating value

Total fuel MWh consumed by the organization

4794.59

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

Considering ethanol and biodiesel needs

Coal

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

N/A

Oil

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

N/A

Gas

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

1557502.34

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

690720.32

MWh fuel consumed for self-generation of steam

866782.02

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

Considering Natural Gas and its use in Refinery to generate steam.

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

70968.58

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

57072.48

MWh fuel consumed for self-generation of steam

13896.1

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

Considering BTE oil, gasoline, diesel and GLP consumption.

Total fuel

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

1633265.51

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

747792.8

MWh fuel consumed for self-generation of steam

880678.12

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

N/A

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	6868971	4828966	6868971	4828966
Heat	747792.8	747792.8	0	0
Steam	880678.12	880678.12	0	0
Cooling	0	0	0	0

C-MM8.2d

(C-MM8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed for metals and mining production activities.

	Total gross generation (MWh) inside metals and mining sector boundary	Generation that is consumed (MWh) inside metals and mining sector boundary
Electricity	6868971	4828966
Heat	690720.32	690720.32
Steam	880678.12	880678.12
Cooling	0	0

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in C6.3.

Country/area of low-carbon energy consumption

Brazil

Sourcing method

Direct line to an off-site generator owned by a third party with no grid transfers (direct line PPA)

Energy carrier

Electricity

Low-carbon technology type

Large hydropower (>25 MW)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

1248639.3

Tracking instrument used

Contract

Country/area of origin (generation) of the low-carbon energy or energy attribute

Brazil

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2012

Comment

Juquiá Complex hydroelectric plants

Country/area of low-carbon energy consumption

Brazil

Sourcing method

Physical power purchase agreement (physical PPA) with a grid-connected generator

Energy carrier

Electricity

Low-carbon technology type

Large hydropower (>25 MW)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

3580326.7

Tracking instrument used

Contract

Country/area of origin (generation) of the low-carbon energy or energy attribute

Brazil

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2012

Comment

Other CBA's hydroelectric plants.

Country/area of low-carbon energy consumption

Brazil

Sourcing method

Physical power purchase agreement (physical PPA) with a grid-connected generator

Energy carrier

Electricity

Low-carbon technology type

Large hydropower (>25 MW)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

1535726

Tracking instrument used

I-REC

Country/area of origin (generation) of the low-carbon energy or energy attribute

Brazil

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

1963

Comment

Grid consumption - REC utilization.

Country/area of low-carbon energy consumption

Brazil

Sourcing method

Purchase from an on-site installation owned by a third party (on-site PPA)

Energy carrier

Steam

Low-carbon technology type

Sustainable biomass

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

839914.76

Tracking instrument used

Contract

Country/area of origin (generation) of the low-carbon energy or energy attribute

Brazil

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2020

Comment

Biomass Boiler

C8.2g

(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

Country/area

Brazil

Consumption of purchased electricity (MWh)

1535726

Consumption of self-generated electricity (MWh)

4828966

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)

839914.76

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

7204606.76

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description

Other, please specify (Create a roadmap to becoming emissions neutral by 2050 and Develop a climate change adaptation plan)

Metric value

0

Metric numerator

This goal is qualitative.

Metric denominator (intensity metric only)

This goal is qualitative.

% change from previous year

0

Direction of change

No change

Please explain

Both targets are qualitative, but they are important objectives for the GHG management program, and therefore their progress is monitored in internal routines with the leadership. With the role of supporting both goals in 2022, the CBA approved emissions reduction targets to the SBTi initiative. The roadmap is being developed to neutralize our emissions and carried out the restructuring of climate risks following the TCFD methodology and mapping of measures of mitigation and adaptation.

C-MM9.3a

(C-MM9.3a) Provide details on the commodities relevant to the mining production activities of your organization.

Output product

Bauxite

Capacity, metric tons

3600000

Production, metric tons

1059212.86

Production, copper-equivalent units (metric tons)

7058

Scope 1 emissions

9013

Scope 2 emissions

0

Scope 2 emissions approach

Market-based

Pricing methodology for copper-equivalent figure

CBA's production was multiplied by the average world price of bauxite in 2022 (R\$ 303). The result was divided by the world average copper price in 2022 (R\$ 45,435).

Comment

Production and emissions were only considered for the units of which we have operational control.

C-MM9.3b

(C-MM9.3b) Provide details on the commodities relevant to the metals production activities of your organization.

Output product Alumina
Capacity (metric tons) 1098000
Production (metric tons) 695531
Annual production in copper-equivalent units (thousand tons) 28586
Scope 1 emissions (metric tons CO2e) 159365.84
Scope 2 emissions (metric tons CO2e) 6758.79
Scope 2 emissions approach Market-based
Pricing methodology for-copper equivalent figure CBA's production was multiplied by the average 2022 price of alumina (R\$ 1,867). The result was divided by the world average copper price in 2022 (R\$ 45,435).
Comment Our alumina production is mainly focused on supplying material to the Smelter stage for the production of primary aluminum.

Output product Aluminum
Capacity (metric tons) 627196
Production (metric tons) 347350.79
Annual production in copper-equivalent units (thousand tons) 106597
Scope 1 emissions (metric tons CO2e) 1051009.42
Scope 2 emissions (metric tons CO2e) 0
Scope 2 emissions approach Market-based
Pricing methodology for-copper equivalent figure CBA's production was multiplied by the average 2022 price of aluminum (R\$ 13,943). The result was divided by the world average copper price in 2022 (R\$ 45,435).
Comment Our smelter production is mainly focused on supplying material to the Casthouse stage, for the production of primary aluminum (ingots, billets, and others).

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?		
	Investment in low-carbon R&D	Comment
Row 1	Yes	CBA has some projects that are very important to achieve it's 2030 ESG Strategy

C-MM9.6a

(C-MM9.6a) Provide details of your organization’s investments in low-carbon R&D for metals and mining production activities over the last three years.

Technology area

Control systems

Stage of development in the reporting year

Small scale commercial deployment

Average % of total R&D investment over the last 3 years

2

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)

2

Average % of total R&D investment planned over the next 5 years

13

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

The project consists of a technological upgrade in the feeding process of the pots to an automated system, contributing to making CBA's production process even more sustainable and efficient. This allows for a 20% reduction in greenhouse gas emissions in the Smelter Rooms and provides greater safety and well-being for our employees, as well as higher product quality. After the complete conversion of the rooms, the project enables significant water and energy savings in the production process: approximately 3.6 million cubic meters of water and 17MW of energy per year, equivalent to the annual energy consumption of 30,000 households. In 2022, 150 cell were upgraded. It is expected to complete the implementatio fase by 2025.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

k
relatorio-anual-2022-en.pdf
CDP-verification-template-CBA-2023.pdf
TCFD Report.VF_compressed.pdf

Page/ section reference

Pages from 137 to 139 of the Annual Report. TCFD report pages 51 to 53

Relevant standard

ABNT NBR ISO 14064-3:2007 (Associação Brasileira de Normas Técnicas)

Proportion of reported emissions verified (%)

100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

k
relatorio-anual-2022-en.pdf
CDP-verification-template-CBA-2023.pdf
TCFD Report.VF_compressed.pdf

Page/ section reference

Pages from 137 to 139 of the Annual Report. TCFD report pages 51 to 53

Relevant standard

ABNT NBR ISO 14064-3:2007 (Associação Brasileira de Normas Técnicas)

Proportion of reported emissions verified (%)

100

Scope 2 approach

Scope 2 market-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

k
relatorio-anual-2022-en.pdf
CDP-verification-template-CBA-2023.pdf
TCFD Report.VF_compressed.pdf

Page/ section reference

Pages from 137 to 139 of the Annual Report. TCFD report pages 51 to 53

Relevant standard

ABNT NBR ISO 14064-3:2007 (Associação Brasileira de Normas Técnicas)

Proportion of reported emissions verified (%)

100

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category

Scope 3: Purchased goods and services
Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)
Scope 3: Upstream transportation and distribution
Scope 3: Business travel
Scope 3: Downstream transportation and distribution
Scope 3: Processing of sold products

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

k
relatorio-anual-2022-en.pdf
CDP-verification-template-CBA-2023.pdf
TCFD Report.VF_compressed.pdf

Page/section reference

Pages from 137 to 139 of the Annual Report. TCFD report pages 51 to 53

Relevant standard

ABNT NBR ISO 14064-3:2007 (Associação Brasileira de Normas Técnicas)

Proportion of reported emissions verified (%)

100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C4. Targets and performance	Emissions reduction activities	Independent auditor's limited assurance report on sustainability information in the CBA - 2022 Annual Report (GRI).	Our entire annual report goes through the third-party verification process, including our ESG 2030 strategy and our reported results of achieving our targets. relatorio-anual-2022-en.pdf TCFD Report.VF_compressed.pdf
C8. Energy	Energy consumption	Independent auditor's limited assurance report on sustainability information in the CBA - 2022 Annual Report (GRI).	Our entire annual report goes through the third-party verification process, including our ESG 2030 strategy and our reported results of achieving our targets. relatorio-anual-2022-en.pdf TCFD Report.VF_compressed.pdf
C7. Emissions breakdown	Year on year change in emissions (Scope 1)	Independent auditor's limited assurance report on sustainability information in the CBA - 2022 Annual Report (GRI).	This information was assured, as it is included in the Annual Report, developed in the GRI and SASB standards and audited by a third party. relatorio-anual-2022-en.pdf TCFD Report.VF_compressed.pdf
C7. Emissions breakdown	Year on year change in emissions (Scope 2)	Independent auditor's limited assurance report on sustainability information in the CBA - 2022 Annual Report (GRI).	This information was assured, as it is included in the Annual Report, developed in the GRI and SASB standards and audited by a third party. relatorio-anual-2022-en.pdf TCFD Report.VF_compressed.pdf
C7. Emissions breakdown	Year on year change in emissions (Scope 3)	Independent auditor's limited assurance report on sustainability information in the CBA - 2022 Annual Report (GRI).	This information was assured, as it is included in the Annual Report, developed in the GRI and SASB standards and audited by a third party. relatorio-anual-2022-en.pdf TCFD Report.VF_compressed.pdf
C12. Engagement	Product footprint verification	Independent auditor's limited assurance report on sustainability information in the CBA - 2022 Annual Report (GRI).	This information was assured, as it is included in the Annual Report, developed in the GRI and SASB standards and audited by a third party. relatorio-anual-2022-en.pdf TCFD Report.VF_compressed.pdf
C4. Targets and performance	Progress against emissions reduction target	Independent auditor's limited assurance report on sustainability information in the CBA - 2022 Annual Report (GRI).	This information was assured, as it is included in the Annual Report, developed in the GRI and SASB standards and audited by a third party. relatorio-anual-2022-en.pdf TCFD Report.VF_compressed.pdf

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

No, but we anticipate being regulated in the next three years

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

CBA had an internal carbon pricing study in 2021 in which we examined some current implemented pricing systems and defined an internal shadow price for carbon emissions. The analysis addressed scenarios that the PMR Brasil program pointed as the more likely to occur, following multiple public consultants and questionnaires that were acquired from interested parties (CBA was one of them and participated in three different questionnaires from the PMR Program). Our current internal carbon price is R\$22.85, and we are adopting this new concept to support our leadership decisions within our strategy in the competitiveness team, innovation and market development team and our technology team (seeking CAPEX opportunities). The internal carbon price is one of our initiatives to prepare CBA for a possible carbon regulation system that may be implemented by 2025. In 2022, CBA participated through ABAL in a study on the impacts of carbon pricing in Brazil and the CBAM (Carbon Border Adjustment Mechanism).

C11.2

(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Type of internal carbon price

Shadow price

How the price is determined

Alignment with the price of allowances under an Emissions Trading Scheme

Price/cost of voluntary carbon offset credits

Benchmarking against peers

Objective(s) for implementing this internal carbon price

Change internal behavior

Drive low-carbon investment

Identify and seize low-carbon opportunities

Scope(s) covered

Scope 1

Pricing approach used – spatial variance

Uniform

Pricing approach used – temporal variance

Static

Indicate how you expect the price to change over time

<Not Applicable>

Actual price(s) used – minimum (currency as specified in C0.4 per metric ton CO2e)

22.85

Actual price(s) used – maximum (currency as specified in C0.4 per metric ton CO2e)

22.85

Business decision-making processes this internal carbon price is applied to

Operations

Product and R&D

Opportunity management

Mandatory enforcement of this internal carbon price within these business decision-making processes

Yes, for some decision-making processes, please specify (CAPEX, Competitive management and Innovation and Market development)

Explain how this internal carbon price has contributed to the implementation of your organization's climate commitments and/or climate transition plan

In 2022 we measured several financial impacts within our competitiveness area which lead to a R\$2,490,650 impact in a probable carbon regulation system. At the same time the same analysis was run with our innovation and market development area, resulting in a R\$4,457,852.02 impact (this value contains a financial impact due to carbon pricing both of CBA's operations and some of our client's operations for which we develop projects). Hence, in our first studies with the final value of our internal carbon pricing have shown interesting results.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, our customers/clients

Yes, other partners in the value chain

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect GHG emissions data at least annually from suppliers

Collect targets information at least annually from suppliers

Collect other climate related information at least annually from suppliers

% of suppliers by number

75

% total procurement spend (direct and indirect)

76.5

% of supplier-related Scope 3 emissions as reported in C6.5

73

Rationale for the coverage of your engagement

Within CBA's Sustainable Procurement Program created in 2021, the Sustainable Procurement Policy was revised to include ESG criteria (including climate change

management) and prioritizing suppliers labelled as critical occurred. Critical suppliers are those whose supplies can cause significant economic, environmental, social and reputational impacts; their raw materials or service provision are linked to the company's main business, without which the plant's productive performance could be harmed; suppliers that are difficult to replace (single sourcing); high unit-price suppliers; and suppliers whose nature of materials/services is related to the company's quality certifications by specific bodies/standards of quality management systems (IATF, ASI, etc.). From a sustainability point of view, suppliers of lesser financial relevance can also be considered critical, but will fit into fragile links in the supply chain, providing risks related to social, environmental and reputational impacts. The selection methodology was based on three criteria: if the supplier was critical for CBA, critical in relation to ESG issues and/or if it had an annual spend greater than R\$500,000.00, and 118 suppliers were characterized as 'critical suppliers'. For 2021, the company had the goal of carrying out the approval of 50% of its critical suppliers (59) and the 70% approval mark was reached (total of 83) and, therefore, we consider that the engagement strategy was a success. For 2022, other goals were developed, such as finalizing the approval of 100% of these suppliers and starting to engage all others. Among these critical suppliers, CBA evaluated which of the ESG criteria would be most impacted for each category and among, after that, 51 were evaluated in water related aspects and already went through this process. For scope 3 relation we considered the emissions that we calculate to only our critical suppliers

Impact of engagement, including measures of success

CBA has increasingly matured its methodology for calculating scope 3 emissions, and for these indicators to increasingly reflect reality, it is necessary to relate and report primary data from our suppliers. With the objective of becoming a reference in sustainability, the company is concerned with bringing positive impacts to its entire value chain, and it became necessary to assess whether our suppliers agree with our sustainability positioning. With this, CBA first seeks to know the maturity level of each of our suppliers, so that in the future it is possible to base our supplier choices on their ESG performance, and also support the development of these practices within the partner companies.

In the Sustainable Procurement Program, suppliers must perform a self-assessment and submit evidence on their level of maturity in climate change management. The maturity ruler starts with the level of not managing your greenhouse gas emissions; the second level is applicable for suppliers that manage only scope 1 and 2 emissions; the third is for the supplier that fully manages its greenhouse gas emissions (scopes 1, 2 and 3) and the fourth level is for the supplier that not only manages all its emissions, but also has a strategic plan with targets aimed at improve performance on the theme. As already mentioned, the Sustainable Procurement Program started in 2021 and therefore it has not yet been possible to have a complete view of the impact of commitment and success by the company's new approach to its suppliers. Within this program, different action fronts were developed that include not only approval of these suppliers and a future retaining of suppliers that meet only the minimum criteria established within the Program, but also development of an action plan for the company to support suppliers in their development of such aspects. The initial expectation is to make an assessment of our supply chain's maturity before defining what will be the minimum standard required for each supplier before hiring them. For 2021, the company had the goal of carrying out the approval of 50% of its critical suppliers (59) and the 70% approval mark was reached (total of 83) and, therefore, we consider that the engagement strategy was a success.

Comment

We understand that we still need to increase the collection of emissions data with our suppliers and we intend to continue the SS project in the following years to mature our suppliers data collection. Under the Sustainable Procurement Program, by June/2022, CBA has already completed 100% of the approval of critical suppliers. In addition, 74% of the other suppliers (2,525 in total), equivalent to 1,880, had already started the approval process and 435 had already sent all the necessary documentation for analysis, raising their total and the representative monetary range

Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Run an engagement campaign to educate suppliers about climate change

Provide training, support, and best practices on how to make credible renewable energy usage claims

Provide training, support, and best practices on how to set science-based targets

% of suppliers by number

100

% total procurement spend (direct and indirect)

100

% of supplier-related Scope 3 emissions as reported in C6.5

100

Rationale for the coverage of your engagement

Within CBA's Sustainable Procurement Program created in 2021, the Sustainable Procurement Policy was revised to include ESG criteria (including climate change management) and prioritizing suppliers labelled as critical occurred. Critical suppliers are those whose supplies can cause significant economic, environmental, social and reputational impacts; their raw materials or service provision are linked to the company's main business, without which the plant's productive performance could be harmed; suppliers that are difficult to replace (single sourcing); high unit-price suppliers; and suppliers whose nature of materials/services is related to the company's quality certifications by specific bodies/standards of quality management systems (IATF, ASI, etc.). From a sustainability point of view, suppliers of lesser financial relevance can also be considered critical, but will fit into fragile links in the supply chain, providing risks related to social, environmental and reputational impacts. The selection methodology was based on three criteria: if the supplier was critical for CBA, critical in relation to ESG issues and/or if it had an annual spend greater than R\$500,000.00, and 118 suppliers were characterized as 'critical suppliers'. For 2021, the company had the goal of carrying out the approval of 50% of its critical suppliers (59) and the 70% approval mark was reached (total of 83) and, therefore, we consider that the engagement strategy was a success. For 2022, other goals were developed, such as finalizing the approval of 100% of these suppliers and starting to engage all others. Among these critical suppliers, CBA evaluated which of the ESG criteria would be most impacted for each category and among, after that, 51 were evaluated in water related aspects and already went through this process. For scope 3 relation we considered the emissions that we calculate to only our critical suppliers

Impact of engagement, including measures of success

CBA has increasingly matured its methodology for calculating scope 3 emissions, and for these indicators to increasingly reflect reality, it is necessary to relate and report primary data from our suppliers. With the objective of becoming a reference in sustainability, the company is concerned with bringing positive impacts to its entire value chain, and it became necessary to assess whether our suppliers agree with our sustainability positioning. With this, CBA first seeks to know the maturity level of each of our suppliers, so that in the future it is possible to base our supplier choices on their ESG performance, and also support the development of these practices within the partner companies.

In the Sustainable Procurement Program, suppliers must perform a self-assessment and submit evidence on their level of maturity in climate change management. The maturity ruler starts with the level of not managing your greenhouse gas emissions; the second level is applicable for suppliers that manage only scope 1 and 2 emissions; the third is for the supplier that fully manages its greenhouse gas emissions (scopes 1, 2 and 3) and the fourth level is for the supplier that not only manages all its emissions, but also has a strategic plan with targets aimed at improve performance on the theme. As already mentioned, the Sustainable Procurement Program started in 2021 and therefore it has not yet been possible to have a complete view of the impact of commitment and success by the company's new approach to its suppliers. Within this program, different action fronts were developed that include not only approval of these suppliers and a future retaining of suppliers that meet only the minimum criteria established within the Program, but also development of an action plan for the company to support suppliers in their development of such aspects. The initial expectation is to make an assessment of our supply chain's maturity before defining what will be the minimum standard required for each supplier before hiring them. For 2021, the company had the goal of carrying out the approval of 50% of its critical suppliers (59) and the 70% approval mark was reached (total of 83) and, therefore, we consider that the engagement strategy was a success.

Comment

We understand that we still need to increase the collection of emissions data with our suppliers and we intend to continue the SS project in the following years to mature our suppliers data collection. Under the Sustainable Procurement Program, by June/2022, CBA has already completed 100% of the approval of critical suppliers. In addition, 74% of the other suppliers (2,525 in total), equivalent to 1,880, had already started the approval process and 435 had already sent all the necessary documentation for analysis, raising their total and the representative monetary range

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement & Details of engagement

Education/information sharing	Run an engagement campaign to education customers about your climate change performance and strategy
-------------------------------	--

% of customers by number

100

% of customer - related Scope 3 emissions as reported in C6.5

100

Please explain the rationale for selecting this group of customers and scope of engagement

We send to all our customers (100% of customers by number) our Annual Report (mainstream report) containing, information on our sustainability strategy, our engagement with climate change, product emissions and clean energy consumption. We share to datasheets of our products that have specifications of the product and some climate information. We are currently working in the development of our digital passport with ESG indicators (We already have a website with some of our ESG indicators)

Impact of engagement, including measures of success

CBA run an engagement campaign to education customers about our climate change performance and strategy, and we regularly have meetings and Workshops with clients bringing CBA's climate change strategy and positioning. We revised our products datasheets so it has more information about our emissions performance. We provide all our customers (100% of costumers by number) with our emission results from bauxite to processed aluminum and we demonstrate how our products have low emissions compared to the market. In 2020, we respond to climate questionnaires sent by customers (This information are public communicated at the Emissions Public Registry). We also share information about your products and relevant certification schemes. In CBA there are the Innovation and Market development team that works directly with our clients to work together in new projects and solution

Type of engagement & Details of engagement

Education/information sharing	Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services
-------------------------------	---

% of customers by number

100

% of customer - related Scope 3 emissions as reported in C6.5

100

Please explain the rationale for selecting this group of customers and scope of engagement

We send to all our customers (100% of customers by number) our Annual Report (mainstream report) containing, information on our sustainability strategy, our engagement with climate change, product emissions and clean energy consumption. We share to datasheets of our products that have specifications of the product and some climate information. We are currently working in the development of our digital passport with ESG indicators (We already have a website with some of our ESG indicators)

Impact of engagement, including measures of success

CBA run an engagement campaign to education customers about our climate change performance and strategy, and we regularly have meetings and Workshops with clients bringing CBA's climate change strategy and positioning. We revised our products datasheets so it has more information about our emissions performance. We provide all our customers (100% of costumers by number) with our emission results from bauxite to processed aluminum and we demonstrate how our products have low emissions compared to the market. In 2022, we respond to climate questionnaires sent by customers (This information are public communicated at the Emissions Public Registry). We also share information about your products and relevant certification schemes. In CBA there are the Innovation and Market development team that works directly with our clients to work together in new projects and solution

C12.1d

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

CBA is also a signatory of the Global Compact (a business movement led by the United Nations that has established ten principles on human rights, labor, environment and anticorruption) and the 2030 Agenda, and supports the 17 Sustainable Development Goals (SDGs). We also support the Task Force on Climate-related Financial Disclosures (TCFD), which develops and issues recommendations on climate-related financial disclosures, and have approved targets to reduce greenhouse gas emissions reduction targets to the Science-Based Targets initiative (SBTi). In addition, CBA is a member of the São Paulo Environmental Agreement, the Brazilian Environmental Chamber for Climate Change, and the Brazilian Business Council for Sustainable Development (CEBDS). In addition, CBA has signed its commitment to 1.5° with the Global Compact initiative and is part of the "Run to Zero" commitment.

At the same time we have multiple projects that treat the climate change topic with Reservas Votorantim (Reflora and REDD+), and we have partnerships with universities (Example: UFV – Viçosa Federal University) and we are starting to work with our suppliers in the Sustainable Supplier Project.

In our communities, throughout the year we ran 59 social programs across our four pillars of education, public management support, economic development, and protecting child and adolescent rights. CBA's social initiatives are designed based on the pillars of education, Public management support, economic development, and protecting child and adolescent rights. To enable these projects, CBA partners with NGOs, associations, cooperatives, and community leaders, as well as the Executive and Legislative branches of government. CBA has a new commitment included in the 2030 ESG Strategy's review process, Its objective is to provide municipal governments with public management solutions for climate mitigation and adaptation. This includes efforts to mobilize partnerships and funds, provide training to public managers, and support efforts to mitigate the social and environmental impacts from climate change. CBA helps to improve government management practices in the cities where it is present through a partnership with Instituto Votorantim. Modernizing Management is of the approaches used in this program. This includes government planning, transparency, social participation, and fiscal balancing (tax, management, education, social services, and healthcare). Another work front is Urban Planning, where the Company provides technical support to design sector plans (Master, Sanitation, Housing and Mobility Plans) and executive design to guide government programs and support claims for development funds.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

No, but we plan to introduce climate-related requirements within the next two years

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

Yes

Attach commitment or position statement(s)

In our communities, throughout the year we ran 59 social programs across our four pillars of education, public management support, economic development, and protecting child and adolescent rights. CBA's social initiatives are designed based on the pillars of education, Public management support, economic development, and protecting child and adolescent rights. To enable these projects, CBA partners with NGOs, associations, cooperatives, and community leaders, as well as the Executive and Legislative branches of government. CBA has a new commitment included in the 2030 ESG Strategy's review process, Its objective is to provide municipal governments with public management solutions for climate mitigation and adaptation. This includes efforts to mobilize partnerships and funds, provide training to public managers, and support efforts to mitigate the social and environmental impacts from climate change. CBA helps to improve government management practices in the cities where it is present through a partnership with Instituto Votorantim. Modernizing Management is of the approaches used in this program. This includes government planning, transparency, social participation, and fiscal balancing (tax, management, education, social services, and healthcare). Another work front is Urban Planning, where the Company provides technical support to design sector plans (Master, Sanitation, Housing and Mobility Plans) and executive design to guide government programs and support claims for development funds.

Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan

CBA is also a signatory of the Global Compact (a business movement led by the United Nations that has established ten principles on human rights, labor, environment and anticorruption) and the 2030 Agenda, and supports the 17 Sustainable Development Goals (SDGs). We also support the Task Force on Climate-related Financial Disclosures (TCFD), which develops and issues recommendations on climate-related financial disclosures, and have approved targets to reduce greenhouse gas emissions reduction targets to the Science Based Targets initiative (SBTi). In addition, CBA is a member of the São Paulo Environmental Agreement, the Brazilian Environmental Chamber for Climate Change, and the Brazilian Business Council for Sustainable Development (CEBDS). In addition CBA has signed its compromise with the engagement to 1.5°C with Global Compact initiative and are part of the "Run to Zero" compromise. We participate in business groups where we discuss good practices related to climate change. Examples: ABAL- Brazilian Aluminum Association, IAI - International Aluminum Institute, Climate Change Committee of the State of São Paulo, FGV Business Initiatives and Emissions Trading Simulation, Global Compact and ASI- Aluminum Stewardship Initiative. We are also discussing carbon capture issues with other partner companies. In addition, we released our Annual Report (GRI standards) with various climatic information to all our stakeholders in the value chain. These engagements are important to increase the CBA's knowledge related to climate change; ensure that the company carries out the best market practices in this area and ensure transparency and positive exposure of the company. We participated into PMR Brasil conferences and consultant public events. In the middle of 2021 we participated into the road test of SBTi to its new tool to trace net-zero path. In 2022 CBA worked with International Aluminium Institute (IAI) on a material about scope 3 emissio

Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Specify the policy, law, or regulation on which your organization is engaging with policy makers

Study to analyze possibilities of Carbon pricing implementation through a marketing system. We participated in completing PMR Brazil questionnaires for public consultation and with ABAL we participate in analyses of how border defense mechanisms with CBAM can impact the national aluminum market. Furthermore, CBA participates in discussions on carbon pricing bills in Brazil through CEBDS.

Category of policy, law, or regulation that may impact the climate

Carbon pricing, taxes, and subsidies

Focus area of policy, law, or regulation that may impact the climate

Carbon taxes
Emissions trading schemes
Carbon offsets

Policy, law, or regulation geographic coverage

Global

Country/area/region the policy, law, or regulation applies to

<Not Applicable>

Your organization's position on the policy, law, or regulation

Support with minor exceptions

Description of engagement with policy makers

In PMR we share our perceptions on the main project assumptions and contribute suggestions for improvements in the matter to other participants in the public consultation questionnaires. With ABAL, we had a greater involvement as we were one of the aluminum companies in Brazil that was pressing the topic. We supported recommendation of hiring for the study, participated in interviews, completed questionnaires, participated in meetings to deliver the results of studies, in which participated representatives of other aluminum companies in the country.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

In control mechanisms, there could be more flexibility with the floor price being lower at the beginning. At the point of regulation, there could be the flexibility of not being by manufacturers, but by a regulated stage of the industrial process, as those with integrated plants (single address and CNPJ) can be harmed compared to those that have the same processes but in separate plants (more than one CNPJ), harming competitiveness. Regarding border mechanisms, CBA raised questions about the calculation methodology of emission indicators and sought clarifications on the emissions coverage of these KPIs to ensure that comparable information is reported.

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?

The emission results of CBA are already competitive when compared to the market. The company has also established a trajectory to decarbonize 40% of its cast products chain. To achieve a Net-zero scenario, the company will now require the development of new market technologies, which still have high costs. A pricing system that considers scope 1 and 2 emissions would be beneficial for the competitiveness of CBA's products, potentially generating capital for investment in new technologies.

C12.4

(C12.4) Have you published information about your organization’s response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication
In voluntary sustainability report

Status
Complete

Attach the document
K
relatorio-anual-2022-en.pdf

Page/Section reference
CBA's annual report - 98 to 100

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment
TCFD report

Publication
In mainstream reports, incorporating the TCFD recommendations

Status
Underway – this is our first year

Attach the document
k
TCFD Report.VF_compressed.pdf

Page/Section reference
TCFD report (All pages)

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment
Publications in line with ISO 14064, and TCFD (Task Force on Climate-related Financial Disclosures).

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	Business Ambition for 1.5C Global Reporting Initiative (GRI) Community Member Race to Zero Campaign Science Based Targets Network (SBTN) Task Force on Climate-related Financial Disclosures (TCFD) Task Force on Nature-related Financial Disclosures (TNFD) UN Global Compact We Mean Business World Business Council for Sustainable Development (WBCSD) Other, please specify (First Movers Coalition)	Climate change is a material issue for CBA, as the energy- and carbon-intensive nature of aluminum smelting can significantly contribute to global emissions. As the world rallies to combat climate change, companies are increasingly being called upon to improve their own emissions performance. At CBA, we have demonstrated a strong commitment to producing sustainable aluminum through various initiatives, such as our newly launched Alennium seal. Furthermore, we have publicly committed to sustainability through our 2030 ESG Strategy, and we support organizations, initiatives, and frameworks such as the Global Compact, the Brazilian Business Council for Sustainable Development (CEBDS), the São Paulo Agreement, the Science Based Targets initiative (SBTi), the First Movers Coalition, and ASI Certification. The year 2022 also marked our entry into the Net Zero Ambition Movement, another initiative that reinforces CBA's commitment to sustainable development and to science-based targets. The Movement is an initiative of the UN Global Compact Brazil, and aims to challenge and support signatories so they can establish robust science-based targets in order to reduce their greenhouse gas emissions and further sustainability. Its ambition is for participating organizations to reduce their aggregate emissions by 2 gigatons of CO ₂ e by 2030. We are also a member of Race to Zero, a Global Compact campaign to rally leadership and support from signatories to combat climate change. CBA is committed to transparency in our annual greenhouse gas emissions inventories. These inventories are made available in Brazil's Public Emissions Register (RPE), and are prepared in accordance with the GHG Protocol methodology. We were again awarded Gold reporting status, which recognizes our efforts to transparently disclose comprehensive, third-party-verified information. We also were the first primary aluminum producer in the world to have SBTi approved targets supporting the Paris Agreement and its goal to limit global temperature rise to below 2°C above pre-industrial levels. CBA has also endorsed The Mission Possible Partnership, an alliance of climate leaders focused on supercharging efforts to decarbonize some of the world's highest-emitting industries in the next decade. In 2022, CBA also became the first Brazilian company to join the First Movers Coalition (FMC), a global initiative to decarbonize seven hard-to-abate industrial sectors, announced by US President Joe Biden during COP 26 (the 2021 United Nations Climate Change Conference) in a partnership with the World Economic Forum.

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	Yes, both board-level oversight and executive management-level responsibility	CBA has a sustainability committee (responsible for advising our management committee) and an executive sustainability committee (responsible for approving at our highest sustainability level, with members of the lead team), both of which have independent members and hold regular meetings to discuss topics that are or will be worked on in the company. Biodiversity is one of the company's development programs within our ESG 2030 strategy and has two specific objectives for development until 2030. As it is a material topic for the company, it is the subject of meetings by both committees.	<Not Applicable>

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	Yes, we have made public commitments and publicly endorsed initiatives related to biodiversity	Commitment to respect legally designated protected areas Commitment to avoidance of negative impacts on threatened and protected species Other, please specify (CBA's ESG Strategy 2030)	SDG

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

Impacts on biodiversity

Indicate whether your organization undertakes this type of assessment

Yes

Value chain stage(s) covered

Direct operations
Upstream

Portfolio activity

<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity

TNFD – Taskforce on Nature-related Financial Disclosures

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)

CBA has several policies and standards in place on protecting biodiversity and eco-system services. These include our Integrated Management System Policy, Biodiversity Standard, Code of Conduct, and Biodiversity Action Plans at most sites, which our corporate department follows up on monthly. We also have a Risk, Aspect and Impact Matrix that identifies impacts on biodiversity, their level of criticality and mitigation measures. In addition, our 2030 ESG Strategy includes a dedicated program on biodiversity

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment

Yes

Value chain stage(s) covered

Direct operations

Portfolio activity

<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity

TNFD – Taskforce on Nature-related Financial Disclosures

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)

CBA has several policies and standards in place on protecting biodiversity and eco-system services. These include our Integrated Management System Policy, Biodiversity Standard, Code of Conduct, and Biodiversity Action Plans at most sites, which our corporate department follows up on monthly. We also have a Risk, Aspect and Impact Matrix that identifies impacts on biodiversity, their level of criticality and mitigation measures. In addition, our 2030 ESG Strategy includes a dedicated program on biodiversity

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity- sensitive areas in the reporting year?

Yes

C15.4a

(C15.4a) Provide details of your organization's activities in the reporting year located in or near to biodiversity -sensitive areas.

Classification of biodiversity -sensitive area

Other biodiversity sensitive area, please specify (Mangrove)

Country/area

Brazil

Name of the biodiversity-sensitive area

Mangrove

Proximity

Adjacent

Briefly describe your organization's activities in the reporting year located in or near to the selected area

Near the Itapissuma unit, one can find a mangrove area. The unit does not engage in any natural resource extraction activities from the region, but it is committed to preserving the local ecosystem.

Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Yes, but mitigation measures have been implemented

Mitigation measures implemented within the selected area

Site selection
Physical controls
Operational controls

Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

The unit does not engage in any natural resource extraction activities from the region, but it is committed to monitoring and preserving the local ecosystem.

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Land/water protection Land/water management Species management Education & awareness Livelihood, economic & other incentives Other, please specify (Projects development alongside with our clients)

C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	Yes, we use indicators	State and benefit indicators Response indicators

C15.7

(C15.7) Have you published information about your organization’s response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Content of biodiversity-related policies or commitments Governance Impacts on biodiversity Details on biodiversity indicators Risks and opportunities Biodiversity strategy	Annual report pages xx

C16. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

Delivering aluminum solutions that change people's lives. This is CBA's purpose. Through our products, we are present in the lives of millions of people—making their lives easier, shortening distances and improving well-being. CBA is the only fully vertically integrated aluminum company in Brazil. Founded in 1941, CBA became a publicly traded corporation in 2021 and the first aluminum company in Brazil listed in the B3 stock exchange, on the Novo Mercado listing segment. We are proud to be a fully Brazilian-owned business and a member of the Votorantim S.A. investment portfolio. Throughout our journey as a Company, we have worked to build a better and more sustainable world, and to be responsive to the needs of our enterprise, our society and our planet. Inspired by our purpose, we have put sustainability and innovation at the core of our strategy. Our operations begin at the mines where we produce bauxite, an ore that is then processed into alumina, molten aluminum and finally primary and downstream aluminum products. CBA also works with customers and business partners to supply customized products and cutting-edge solutions, such as higher value-added sheet and extruded profiles, as well as additional processing operations (cutting, bending, welding, machining and assembly). Our downstream products are supplied primarily to customers in the Americas, largely in Brazil and other countries in South and North America. CBA is also a leading player in industrial-scale aluminum recycling in Brazil. Through our Metalex operation we recycle scrap produced by our own production process and by our customers and partners. This improves both sustainability and profitability, as aluminum recycling uses only 5% of the electricity required to produce primary aluminum, according to International Aluminium Institute (IAI). In 2021 we approved a project to install an additional recycling line at Metalex.

Principles and Values: Votorantim Principles and Values permeate all Votorantim subsidiaries and represent our way of being, of doing, and going beyond. These are also the values of Companhia Brasileira de Alumínio ("CBA"). Our Purpose reflects our history, our identity and our vision of the future: "Aluminum solutions that change people's lives".

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Chief Executive Officer (CEO)	Chief Executive Officer (CEO)

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

Companhia Brasileira de Alumínio (CBA) is a vertically integrated, sustainable producer of high-quality aluminum products. With hydroelectric generation capacity for 100% of our energy requirements, CBA's operations span both bauxite mining and processing into primary aluminum (ingots, plate, sheets, billets and rod*) and semi-fabricated products (caster rolls, sheet, foil, extruded profiles and parts and components). Working closely with customers, CBA also develops tailored solutions and services, primarily for the packaging, automotive and transportation markets, helping customers to produce more lightweight, durable and sustainable products.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	8800000000

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member

Ambev S.A

Scope of emissions

Scope 1

Scope 2 accounting method

<Not Applicable>

Scope 3 category(ies)

<Not Applicable>

Allocation level

Facility

Allocation level detail

Primary data verified by a third party were used. The reported value reflects the emission of greenhouse gases per ton of ingot supplied. Ambev is not a direct customer of CBA, so it was not possible to track the volume of CBA product that the company used in 2022

Emissions in metric tonnes of CO₂e

3.49

Uncertainty (±%)

0

Major sources of emissions

Scope 1 emissions (mobile combustion, stationary combustion, industrial emissions and fugitive emissions)

Verified

Yes

Allocation method

Allocation not necessary due to type of primary data available

Market value or quantity of goods/services supplied to the requesting member

0

Unit for market value or quantity of goods/services supplied

Metric tons

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

CBA currently has a methodology for calculating emissions for its main production lines. This calculation reflects an average carbon footprint result following the Tier 2 methodology recommended by the IAI (International Aluminum Institute). This methodology was evaluated and ensured by a third party by Bureau Veritas and considers all sources of scope 1 and 2 emissions of the CBA production process from mining activities to the manufacture of the final product (Considers emissions from the stages: Mining, refinery, electrolysis, casthouse, downstream production and support areas). This methodology does not consider scope 3 entries.

Requesting member

Ambev S.A

Scope of emissions

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

<Not Applicable>

Allocation level

Facility

Allocation level detail

Primary data verified by a third party were used. The reported value reflects the emission of greenhouse gases per ton of ingot supplied. Ambev is not a direct customer of CBA, so it was not possible to track the volume of CBA product that the company used in 2022

Emissions in metric tonnes of CO₂e

0.02

Uncertainty (±%)

0

Major sources of emissions

Scope 2 emissions (Only the purchase of steam for the biomass boiler was considered, since in 2022 CBA managed to guarantee 100% traceable renewable electricity

Verified

Yes

Allocation method

Allocation not necessary due to type of primary data available

Market value or quantity of goods/services supplied to the requesting member

0

Unit for market value or quantity of goods/services supplied

Metric tons

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

CBA currently has a methodology for calculating emissions for its main production lines. This calculation reflects an average carbon footprint result following the Tier 2 methodology recommended by the IAI (International Aluminum Institute). This methodology was evaluated and ensured by a third party by Bureau Veritas and considers all sources of scope 1 and 2 emissions of the CBA production process from mining activities to the manufacture of the final product (Considers emissions from the stages: Mining, refinery, electrolysis, casthouse, downstream production and support areas). This methodology does not consider scope 3 entries

Requesting member

lochpe-Maxion SA

Scope of emissions

Scope 1

Scope 2 accounting method

<Not Applicable>

Scope 3 category(ies)

<Not Applicable>

Allocation level

Facility

Allocation level detail

Primary data verified by a third party were used. The reported value reflects the emission of greenhouse gases per ton of aluminium extrusions supplied.

Emissions in metric tonnes of CO₂e

3.77

Uncertainty (±%)

0

Major sources of emissions

Scope 1 emissions (mobile combustion, stationary combustion, industrial emissions and fugitive emissions)

Verified

Yes

Allocation method

Allocation not necessary due to type of primary data available

Market value or quantity of goods/services supplied to the requesting member

6745

Unit for market value or quantity of goods/services supplied

Kilograms

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

CBA currently has a methodology for calculating emissions for its main production lines. This calculation reflects an average carbon footprint result following the Tier 2 methodology recommended by the IAI (International Aluminum Institute). This methodology was evaluated and ensured by a third party by Bureau Veritas and considers all sources of scope 1 and 2 emissions of the CBA production process from mining activities to the manufacture of the final product (Considers emissions from the stages: Mining, refinery, electrolysis, casthouse, downstream production and support areas). This methodology does not consider scope 3 entries

Requesting member

lochpe-Maxion SA

Scope of emissions

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

<Not Applicable>

Allocation level

Facility

Allocation level detail

Primary data verified by a third party were used. The reported value reflects the emission of greenhouse gases per ton of aluminium extrusion supplied.

Emissions in metric tonnes of CO₂e

0.02

Uncertainty (±%)

0

Major sources of emissions

Scope 2 emissions (Only the purchase of steam for the biomass boiler was considered, since in 2022 CBA managed to guarantee 100% traceable renewable electricity)

Verified

Yes

Allocation method

Allocation not necessary due to type of primary data available

Market value or quantity of goods/services supplied to the requesting member

6745

Unit for market value or quantity of goods/services supplied

Kilograms

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

CBA currently has a methodology for calculating emissions for its main production lines. This calculation reflects an average carbon footprint result following the Tier 2 methodology recommended by the IAI (International Aluminum Institute). This methodology was evaluated and ensured by a third party by Bureau Veritas and considers all sources of scope 1 and 2 emissions of the CBA production process from mining activities to the manufacture of the final product (Considers emissions from the stages: Mining, refinery, electrolysis, casthouse, downstream production and support areas). This methodology does not consider scope 3 entries

Requesting member

Robert Bosch GmbH

Scope of emissions

Scope 1

Scope 2 accounting method

<Not Applicable>

Scope 3 category(ies)

<Not Applicable>

Allocation level

Facility

Allocation level detail

Primary data verified by a third party were used. The reported value reflects the emission of greenhouse gases per ton of aluminium extrusions supplied.

Emissions in metric tonnes of CO₂e

3.77

Uncertainty (±%)

0

Major sources of emissions

Scope 1 emissions (mobile combustion, stationary combustion, industrial emissions and fugitive emissions)

Verified

Yes

Allocation method

Allocation not necessary due to type of primary data available

Market value or quantity of goods/services supplied to the requesting member

617074

Unit for market value or quantity of goods/services supplied

Kilograms

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

CBA currently has a methodology for calculating emissions for its main production lines. This calculation reflects an average carbon footprint result following the Tier 2 methodology recommended by the IAI (International Aluminum Institute). This methodology was evaluated and ensured by a third party by Bureau Veritas and considers all sources of scope 1 and 2 emissions of the CBA production process from mining activities to the manufacture of the final product (Considers emissions from the stages: Mining, refinery, electrolysis, casthouse, downstream production and support areas). This methodology does not consider scope 3 entries.

Requesting member

Robert Bosch GmbH

Scope of emissions

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

<Not Applicable>

Allocation level

Facility

Allocation level detail

Primary data verified by a third party were used. The reported value reflects the emission of greenhouse gases per ton of aluminium extrusions supplied.

Emissions in metric tonnes of CO2e

0.02

Uncertainty (±%)

0

Major sources of emissions

Scope 2 emissions (Only the purchase of steam for the biomass boiler was considered, since in 2022 CBA managed to guarantee 100% traceable renewable electricity)

Verified

Yes

Allocation method

Allocation not necessary due to type of primary data available

Market value or quantity of goods/services supplied to the requesting member

617074

Unit for market value or quantity of goods/services supplied

Kilograms

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

CBA currently has a methodology for calculating emissions for its main production lines. This calculation reflects an average carbon footprint result following the Tier 2 methodology recommended by the IAI (International Aluminum Institute). This methodology was evaluated and ensured by a third party by Bureau Veritas and considers all sources of scope 1 and 2 emissions of the CBA production process from mining activities to the manufacture of the final product (Considers emissions from the stages: Mining, refinery, electrolysis, casthouse, downstream production and support areas). This methodology does not consider scope 3 entries

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

CBA publishes its greenhouse gas emissions within its annual sustainability report, additional disclosures supplement, public emissions registry, and climate agenda report (TCFD).

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
We face no challenges	At CBA we have emission calculations for all major products. Calculations for the previous year are generally finalized in March of each year, as they require updating the national emission factors of the GHG Brazil Program. We have no difficulty in passing these results on to our customers according to the volumes of products purchased. We always recommend greater proximity between the client and the CBA commercial and/or sustainability teams to gain access to more specific indicators

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

Yes

SC1.4a

(SC1.4a) Describe how you plan to develop your capabilities.

In 2022, CBA, in addition to disclosing its emissions through existing communication mechanisms (public emissions report, annual report and additional disclosures supplement), launched the TCFD report, which consolidates all the Company's actions regarding the climate agenda. Furthermore, CBA introduced digital product passports that showcase ESG indicators using Blockchain technology to ensure the reliability and traceability of information. Currently, the company disclose average emissions from all of our finished products and only send specific emissions for our products when requested by customers. CBA carried out a third-party validation of the methodology for calculating emission indicators by specific product, and is constantly evaluating new ways to share its results with CBA clients.

In order to be able to deepen the analysis of the impact of its products, in 2021 the SimaPro software was hired to carry out life cycle assessments (LCA) which will allow the company to evaluate how its products can impact the process of its customers.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

Requesting member

Ambev S.A

Group type of project

Relationship sustainability assessment

Type of project

Assessing products or services life cycle footprint to identify efficiencies

Emissions targeted

Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized

Other, please specify ((It is not possible to provide a timetable as Ambev is not a direct customer of CBA, for this it would be necessary to bring both companies closer to better understand Ambev's process, and the role of CBA in its production process.))

Estimated lifetime CO2e savings

0

Estimated payback

Other, please specify ((It is not possible to calculate the financial return since Ambev is not a direct customer of CBA, for this it would be necessary to bring both companies closer to better understand the opportunities for improvement within Ambev's process))

Details of proposal

Today, CBA is not a direct supplier to Ambev, so information about the impact of CBA products within the company's production process is very limited. With this, there are the following opportunities for joint development:

- 1) Carry out a mapping to understand how the CBA product impacts Ambev's process (This way it will be possible to provide specific emissions indicators on CBA products);
 - 2) Carry out an LCA study (Life Cycle Analysis) of the Ambev product that uses CBA products (CBA currently has the SimaPro software to carry out these assessments and is supported by the Ecoinvent database);
 - 3) Jointly develop new products together with CBA's Market Development and Innovation team. The company has a team dedicated to the development of new products and solutions for CBA customers.
 - 4) Currently, CBA has the innovative ReAl project that is capable of recycling multilayer packaging (long life packaging), which offers the opportunity to partner with companies that use this type of packaging (Evaluating Ambev's product portfolio, it was analyzed that at least one of the products has synergy with this new technology developed by CBA) - Follow the link to access more information about the ReAl project (<https://tecnologiareal.com.br/>).
 - 5) In 2022, CBA launched Alennium, a new seal displayed on products made with CBA's low-carbon aluminum. Alennium represents our commitment to supplying low-carbon aluminum—the aluminum of the future. The new seal can be displayed on products made with our low-carbon aluminum—less than 4 tons of CO2e per ton of molten aluminum.
- Consumers can now quickly identify products that are helping to build a more sustainable world for everyone in the next millennium. Alennium is another step in creating the future we aspire for—a future built through partnership and respect for the environment and society.
- 6) Within CBA's ESG 2030 strategy, there is an objective to offer a line of carbon-neutral products to its customers. To support this goal, the company has two carbon credit generation projects ("REDD+ Cerrado" and "Reflora CBA," with the former already issuing credits). In the event that Ambev is interested in acquiring low-carbon or carbon-neutral aluminum, we suggest contacting the company's sales team.

Requesting member

lochpe-Maxion SA

Group type of project

New product or service

Type of project

Other, please specify ((Initiatives that would have the potential to reduce Scope 1, 2 and/or 3 emissions from CBA, our clients, and the performance of our customer's product over its lifetime))

Emissions targeted

Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized

1-3 years

Estimated lifetime CO2e savings

0

Estimated payback

Other, please specify ((Not possible to calculate without first approaching the companies))

Details of proposal

Today, CBA is able to map the following opportunities to work together with our customers:

- 1) Carry out a mapping to understand how the CBA product impacts Maxion's process (This way it will be possible to provide specific emissions indicators on CBA

products);

2) Carry out an LCA study (Life Cycle Analysis) of the Maxion product that uses CBA products (CBA currently has the SimaPro software to carry out these assessments and is supported by the Ecoinvent database);

3) Jointly develop new products together with CBA's Market Development and Innovation team. The company has a team dedicated to the development of new products and solutions for CBA customers.

Currently, CBA already has a new product development project with Maxion Strutal Componentes, which is considered one of the success stories of the company's market development and innovation team.

4) In 2022, CBA launched Alennium, a new seal displayed on products made with CBA's low-carbon aluminum. Alennium represents our commitment to supplying low-carbon aluminum—the aluminum of the future. The new seal can be displayed on products made with our low-carbon aluminum—less than 4 tons of CO₂e per ton of molten aluminum.

Consumers can now quickly identify products that are helping to build a more sustainable world for everyone in the next millennium. Alennium is another step in creating the future we aspire for—a future built through partnership and respect for the environment and society.

5) Within CBA's ESG 2030 strategy, there is an objective to offer a line of carbon-neutral products to its customers. To support this goal, the company has two carbon credit generation projects ("REDD+ Cerrado" and "Reflora CBA," with the former already issuing credits). In the event that Ambev is interested in acquiring low-carbon or carbon-neutral aluminum, we suggest contacting the company's sales team.

Note: The estimated timeline to materialize carbon reductions reported represents a time estimate once the potential has already been mapped and the scope of activities has already been approved by both parties.

Requesting member

Robert Bosch GmbH

Group type of project

Relationship sustainability assessment

Type of project

Assessing products or services life cycle footprint to identify efficiencies

Emissions targeted

Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized

1-3 years

Estimated lifetime CO₂e savings

0

Estimated payback

Other, please specify ((Not possible to calculate without first approaching the companies))

Details of proposal

Today, CBA is able to map the following opportunities to work together with our customers:

1) Carry out a mapping to understand how the CBA product impacts Bosch's process (This way it will be possible to provide specific emissions indicators on CBA products);
2) Carry out an LCA study (Life Cycle Analysis) of the Bosch product that uses CBA products (CBA currently has the SimaPro software to carry out these assessments and is supported by the Ecoinvent database);

3) Jointly develop new products together with CBA's Market Development and Innovation team. The company has a team dedicated to the development of new products and solutions for CBA customers.

4) In 2022, CBA launched Alennium, a new seal displayed on products made with CBA's low-carbon aluminum. Alennium represents our commitment to supplying low-carbon aluminum—the aluminum of the future. The new seal can be displayed on products made with our low-carbon aluminum—less than 4 tons of CO₂e per ton of molten aluminum.

Consumers can now quickly identify products that are helping to build a more sustainable world for everyone in the next millennium. Alennium is another step in creating the future we aspire for—a future built through partnership and respect for the environment and society.

5) Within CBA's ESG 2030 strategy, there is an objective to offer a line of carbon-neutral products to its customers. To support this goal, the company has two carbon credit generation projects ("REDD+ Cerrado" and "Reflora CBA," with the former already issuing credits). In the event that Ambev is interested in acquiring low-carbon or carbon-neutral aluminum, we suggest contacting the company's sales team.

Note: The estimated timeline to materialize carbon reductions reported represents a time estimate once the potential has already been mapped and the scope of activities has already been approved by both parties.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

Yes, I will provide data

SC4.1a

(SC4.1a) Give the overall percentage of total emissions, for all Scopes, that are covered by these products.

100

SC4.2a

(SC4.2a) Complete the following table for the goods/services for which you want to provide data.

Name of good/ service

Aluminium ingots

Description of good/ service

Tons of aluminium primary ingots.

Type of product

Intermediate

SKU (Stock Keeping Unit)

Alloys A356, A413 and P1010

Total emissions in kg CO2e per unit

3.51

±% change from previous figure supplied

20

Date of previous figure supplied

July 1 2022

Explanation of change

The reported value is the average carbon footprint (considering only the aluminum chain) of the aluminum ingot produced by CBA.

Methods used to estimate lifecycle emissions

Other, please specify ((IAI methodology (Tier 2 emissions))

SC4.2b

(SC4.2b) Complete the following table with data for lifecycle stages of your goods and/or services.

Name of good/ service

Aluminium ingots

Please select the scope

Scope 1 & 2

Please select the lifecycle stage

Cradle to gate

Emissions at the lifecycle stage in kg CO2e per unit

3.51

Is this stage under your ownership or control?

Yes

Type of data used

Primary

Data quality

Primary data collection in the mining, refinery, smelter and casting production areas. This includes all scope 1 and 2 emissions by these processes according to the criteria from GHG Protocol Brazil. As CBA is a vertically integrated company, all of these processes are in scopes 1 and 2. Normally, aluminum manufacturers purchase intermediate materials (bauxite and aluminum oxide) from suppliers, in which case these emissions are of scope 3. Our carbon footprint calculation covers all Level 2 criteria by the World Aluminum guidance.

If you are verifying/assuring this product emission data, please tell us how

Emissions from all CBA production stages are verified by a third party according to GHG Protocol Brazil. Disclosure of supporting documentation will probably take place in October in the official website of the Public Emissions Registry of GHG Brazil. Available at: <<https://www.registropublicodeemissoes.com.br/participantes/2614>>.

SC4.2c

(SC4.2c) Please detail emissions reduction initiatives completed or planned for this product.

Name of good/ service	Initiative ID	Description of initiative	Completed or planned	Emission reductions in kg CO2e per unit
Tons of aluminium oxide	Initiative 1	At the CBA aluminum oxide refinery there is an opportunity to significantly reduce emissions by replacing oil and natural gas boilers by another boiler using wood chip biomass from forests planted for this purpose.	Completed	0.34
Tons of liquid aluminium	Initiative 2	The Green Söderberg project will automate the furnace feed process to reduce emissions from the process while also improving efficiency and safety. Currently 150 pots have the technology installed to test and optimize results. All pots are expected to be converted by 2025. Once the project is properly installed and stabilized, it will be able to reduce process emissions by 20%.	Ongoing	0.54

(SC4.2d) Have any of the initiatives described in SC4.2c been driven by requesting CDP Supply Chain members?

No

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms