Welcome to your CDP Climate Change Questionnaire 2021

C0. Introduction

C0.1

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

Headquartered in Belo Horizonte, state of Minas Gerais, Usiminas operates in the Brazilian flat steel market. One of the main steel complexes in Latin America, with 58 years of operation, the Company works in the entire sector chain, from ore extraction, through steel production, to its transformation into products and capital goods customized for the market.

The steel produced and transformed by Usiminas Companies is present in the daily routine of millions of people in the form of cars, houses, buildings, bridges, home appliances, vessels, steel furniture and agricultural equipment and machinery. Through cutting-edge products and high added-value services, the Company moves the industry and contributes to Brazil's development, by way of operations strategically located in the country's most industrialized regions.

Usiminas' vision and values sustain the Company's Management and guide it with a focus on perpetuity and on the contribution to the development of the economy, the environment and society. The Company's business purpose is to offer full, integrated and tailored solutions, in line with each customer's needs for the most diverse industrial challenges in Brazil, by having its products and services present in the most relevant productive chains: automotive, wind and solar power, home appliances, civil construction, naval, machinery and equipment, tubes, oil and gas, among others.

Usiminas creates value to society by offering quality products and services to its customers, generating return to shareholders, fostering its employees' personal and professional development as well as controlling and mitigating environmental and social impacts. The Company also invests in the development of the communities where it operates, whether through structured partnerships with public authorities or through the Usiminas Institute and São Francisco Xavier Foundation (FSFX), the Company's social branches in the healthcare, education, culture and sports fields.

With more than 23 thousand employees (12.1 thousand own workers and 10.9 thousand outsourced employees) and total net revenue of R$16.1 billion in 2020 (8% up on 2019, when

the company reached R$14.9 billion), Usiminas has 4 business units, operating through 5 companies: Steelmaking (Usiminas and Unigal Usiminas), Mining (Mineração Usiminas) Steel Processing (Soluções Usiminas) and Capital Goods (Usiminas Mecânica).

In the steel business unit, object of this report Usiminas manufactures and sales the following flat carbon steel products :plates, thick plates, hot-rolled flat steel products, cold-rolled flat steel products (uncoated), electrogalvanized and galvanized steel (coated). By using a cutting-edge technology that has sustainable features, the Company stands out in the domestic flat steel production.

Both in Ipatinga, state of Minas Gerais, and in Cubatão, state of São Paulo, the steelworks are integrated. At the Cubatão plant, the primary areas (from raw material yard to steel mill) are temporary shutdown. In 2020, the Company has also shutdown 2 out of the 3 blast furnaces at the Minas Gerais plant, due to the pandemic's effects on the demand.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Reporting year	January 1, 2020	December 31, 2020	No

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

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-ST0.7

(C-ST0.7) Which parts of the steel value chain does your organization operate in?

Iron ore sintering and agglomeration

Coke oven operation

Blast furnace and basic oxygen furnace operations
Hot rolling
Cold rolling and finishing
Scrap steel recycling
Other steelmaking operations (please specify)
Centrais Termelétricas e Linhas de Galvanização

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(s)	Please explain
Chief Executive Officer (CEO)	Usiminas CEO: Responsible for creating Usiminas' Sustainability Committee and appointing its members.
Chief Operating Officer (COO)	Industrial Vice-President: Appointed member of the Usiminas Sustainability Committee, designated as a sponsor on the C-Level for the Climate Change theme.
Other, please specify Corporate General Manager of Sustainability	Corporate General Manager of Sustainability: Member appointed to Usiminas' Sustainability Committee, designated as executive coordinator of the Sustainability Committee, responsible for proposing agendas and addressing issues related to Climate Change.
Chief Financial Officer (CFO)	Financial and Investor Relations Vice-President: Appointed member of the Usiminas Sustainability Committee, responsible for coordinating the interaction with stakeholders linked to the financial sector and the stock market.

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	Please explain

Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Setting performance objectives	Starting with the creation of the Sustainability Corporate General Management, on June 1, 2020, directly linked to the CEO, Usiminas appointed the Sustainability Committee, which meets at least 4 times a year, and extraordinarily, when necessary, with the presence of the entire Executive Board. The committee has been structuring itself so that themes related to Climate Change are part of the regular agenda of meetings. Throughout 2020, the Committee meetings included the presentation, discussion and deliberation of proposals related to action plans for structuring the company's greenhouse gas emission management tools, as well as strategies to improve the MRV - Monitoring, Reporting and Verification and also strategies for meeting the demands of external stakeholders, through reporting initiatives (CDP and Public Emissions Registry GHG Protocol). The company also defined its objectives for the Climate Change theme, determining the hiring of a specialized company to prepare a decarbonization plan, aiming to support the company in its future definition and disclosure of reduction targets.

C1.2

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Other, please specify Structuring Sustainability Management/Climate Change. Approval of the Company's Sustainability Standard.	Quarterly
Chief Financial Officer (CFO)	Other, please specify Structuring Sustainability Management/Climate Change. Approval of the Company's Sustainability Standard.	Quarterly
Chief Operating Officer (COO)	Other, please specify Structuring Sustainability Management/Climate Change. Approval of the Company's Sustainability Standard	Quarterly
Other, please specify	Other, please specify	Quarterly

Corporate General Manager of Sustainability	Structuring of Sustainability Management/Climate Change Structuring and Presentation of the Company's Sustainability Standard to the Executive Board.	
Sustainability committee	Other, please specify Structuring of Sustainability Management/Climate Change	Quarterly
Environment/ Sustainability manager	Other, please specify Structuring of Sustainability Management/Climate Change	Quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

In 2020, Usiminas reached an important milestone to strengthen its Environmental, Social and Governance (ESG) agenda. The Company created the Corporate Department of Sustainability on June 1, 2020, reporting directly to the CEO. The new department's mission is to address and monitor all topics related to the Company's sustainability agenda.

Usiminas has also created a Sustainability Committee, which meets at least 4 times per year with the participation of all Executive Officers. The committee members are: The CEO, the Financial and Investor Relations VP, the Industrial VP, the Commercial VP, the Technology and Quality VP, the Corporate Planning VP, the Mineração Usiminas Executive Board, the People Management and Innovation Office, the Legal Office, the Communication and Institutional Relations Office, the Economic and Financial Corporate Planning Office, the Corporate Department of Sustainability, the Environmental Department and the Investor Relations Department.

Based on that, Usiminas began to structure the monitoring of the main topics in its sustainable agenda matrix through indicators. The process included defining a sponsor linked to the Executive Board and a managing department that will oversee the subject together with the Corporate Department of Sustainability. This team will be in charge of defining the indicators and suggesting quantitative and qualitative goals to be submitted to the approval of Usiminas' Executive Board.

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	The Company created the Corporate Department of Sustainability on June 1, 2020, reporting directly to the CEO. The new department's mission is to address and monitor all topics related to the Company's sustainability agenda, including encouraging the management of climate-related issues through targets and results. Individual performance targets were assigned to some of the organization's strategic positions related to the management of greenhouse gas emissions. These goals are linked to performance evaluation and variable compensation programs.

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	Type of incentive	Activity inventivized	Comment
Other, please specify Corporate General Manager of Sustainability	Monetary reward	Other (please specify) Goals related to structuring the management of issues related to climate change.	Individual performance targets were assigned to some of the organization's strategic positions related to the management of greenhouse gas emissions. These goals are linked to performance evaluation and variable compensation programs.
Environment/Sustainability manager	Monetary reward	Emissions reduction target	Individual performance targets were assigned to some of the organization's strategic positions related to the management of greenhouse gas emissions. These goals are linked to performance evaluation and variable compensation programs.

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?

No

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	Definition of short-term time horizons is based on the company's annual budget. With the structuring of the company's vision on themes related to Climate Change, the theme will be revisited, and may be adjusted, if necessary, to the time horizons compatible with this agenda.
Medium-term	1	5	Definition of medium-term time horizons is based on the company's Multi-Year Plan. With the structuring of the company's vision on themes related to Climate Change, the theme will be revisited, and may be adjusted, if necessary, to the time horizons compatible with this agenda.
Long-term	5	10	Definition of long-term time horizons is based on the company's Multi-Year Plan. With the structuring of the company's vision on themes related to Climate Change, the theme will be revisited, and may be adjusted, if necessary, to the time horizons compatible with this agenda.

C2.1b

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

Usiminas' Risk Management process, which is currently in phase of structuring, aims to establish strategies to identify, analyze, evaluate, handle, monitor and communicate potential events that may affect results. It seeks to manage events so as to keep them compatible with the Company's risk appetite, enabling greater security in the fulfillment of its objectives and it will be integrated between all business areas.

The criticality classification approach is conservative, where all vectors are analyzed, considered as the worst scenario for classification of Inherent Risk and Residual Risk. The Ruler of Impact x Probability used in the Company results in a 5 x 5 matrix, with 5 Impact scales, where the percentage of variation between the scales is proportional, being assigned as 5 - Critical, 4 - High, 3 - Moderate, 2 – Low and 1 – Minimum; in addition to 5 probability scales assigned based on the probability analysis and estimated frequency of risk materialization, as follows: 5 – Almost Certain, 4 – Probable, 3 – Possible, 2 – Low and 1 – Rare.

Vectors for Impact classification:
• Financial: Financial analysis, based on the Company's materiality, calculated using a systemic tool, which adopts a quantitative and qualitative calculation methodology for Risk Appetite. The

scales are proportional, with the smallest being below 20% of the reference value (Low) and the highest being above 80% of the reference value.
• Image: Analysis that assesses the impact of Risks in relation to the exposure, being Local, Regional, National and International, in addition to other factors such as involvement with public interest, internal (organizational environment) and external (governmental authorities, representatives, media, among others) repercussions.
• Compliance/Legal: Analysis where it is evaluated whether the impact of the Risk is limited to the Company or whether there is a possibility of impact on the operating sector or on the market as a whole, as well as whether there is solid evidence for any defense in the event of impositions restrictions on the part of regulatory bodies or in the event of any inspection/investigation/proceeding against the Company.
• Health and Safety: Analysis in relation to the impacts of Occupational Health and Safety (SSO) and Occupational Health and Safety (OHS).
• Environment: Environmental impact analysis within the boundaries of the Business Unit, or in the municipality, region or nationally and internationally, with the involvement of internal or external parties, and according to the resolution time frame (short, medium and long term).
• Operation: Analysis of the impact on the direct operation of the Company or on the processes that support the operation, in addition to product quality.

C2.2g

(C2.2g) Why does your organization not have a process in place for identifying, assessing, and responding to climate-related risks and opportunities, and do you plan to introduce such a process in the future?

	Primary reason	Please explain
Row 1	We are planning to introduce a climate-related risk management process in the next two years	Usiminas will structure its risk management focused on climate change throughout 2021, aiming to present the results in 2022. The commitment is formally expressed in the 2020 Sustainability Report.

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

Primary potential financial impact

Increased direct costs

Company-specific description

Although the organization does not yet have a formal and structured process to identify, assess and respond to climate risks and opportunities, the company recognizes potential risks that could cause considerable financial and/or strategic impacts on its business. A carbon pricing mechanism in Brazil, depending on the models and instruments adopted, may lead to an increase in direct costs in steel manufacturing.

Time horizon

Unknown

Likelihood

Likely

Magnitude of impact

Unknown

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

It is not possible to provide values for the potential financial impact, since several different instruments and designs are being studied by the Brazilian government with a view to a future implementation of a carbon pricing mechanism.
There is still no definition as to the instrument/mechanism to be adopted, coverage of the scope of emissions, carbon price, free allocations, among others.

Cost of response to risk

Description of response and explanation of cost calculation

The costs of response to risk in not available.

Comment

The costs of response to risk in not available.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation

Carbon pricing mechanisms

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

Although the organization does not yet have a formal and structured process to identify, assess and respond to climate risks and opportunities, the company recognizes potential risks that could cause considerable financial and/or strategic impacts on its business. A carbon pricing mechanism in Brazil, depending on the models and instruments adopted, can lead to increased indirect costs in steel manufacturing (Increase in fuel costs with an impact on the transport/logistics chain, for example).

Time horizon

Unknown

Likelihood

Likely

Magnitude of impact

Unknown

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

It is not possible to provide values for the potential financial impact, since several different instruments and designs are being studied by the Brazilian government with a

view to a future implementation of a carbon pricing mechanism.
There is still no definition as to the instrument/mechanism to be adopted, coverage of the scope of emissions, carbon price, among others.

Cost of response to risk

Description of response and explanation of cost calculation

The costs of response to risk in not available.

Comment

The costs of response to risk in not available.

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

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

Although the organization does not yet have a formal, structured process for identifying, assessing and responding to climate risks and opportunities, the company recognizes potential opportunities to have significant financial and/or strategic impacts on its business. By investing in the production of low-carbon steel, the company will be able to access new markets and position itself as a protagonist in a new economic order focused on sustainability. Steel is a noble product and versatile enough to be used in the development of products, technologies and equipment necessary for the

decarbonization of other sectors of the economy. Furthermore, Brazil has a clean energy matrix with potential for evolution in the use of renewable energy in the coming years, which is a differential and beneficial factor for the production of steel with low carbon emissions in the country.

In this sense, the company has already been working on the development of more efficient steels with high technological value, with potential application in the photovoltaic power plant market (Usi Solar steel, developed in 2020) and also steels with high mechanical strength and reduced thickness, market-oriented to the automotive sector, which bring environmental benefits by allowing the manufacture of lighter vehicles, with a lower rate of greenhouse gas emissions.

Time horizon

Unknown

Likelihood

More likely than not

Magnitude of impact

Unknown

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

It is not possible to quantify.

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation

Costs to materialize the opportunity are not available.

Comment

Costs to materialize the opportunity are not available.

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?

No

C3.5

(C3.5) Why have climate-related risks and opportunities not influenced your strategy and/or financial planning?

Since the organization does not yet have a formal and structured process to identify, assess and respond to climate risks and opportunities, it has not yet been possible to address such risks and opportunities in the organization's strategic-financial planning assessments.

The company intends to structure its risk management focused on climate change throughout 2021, presenting results in 2022 and, from then on, the organization's strategic-financial planning will start to address these issues in its inputs.

C4. Targets and performance

C4.1

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

No target

C4.1c

(C4.1c) Explain why you did not have an emissions target, and forecast how your emissions will change over the next five years.

	Primary reason	Five-year forecast	Please explain
Row 1	We are planning to introduce a target in the next two years	We recognize that this is the beginning of a journey of vital importance for the perpetuity of Usiminas and we will strive to structure our plans and actions in order to engage in global efforts on the Climate related issues. Our best expectation is to be able to disclose our metrics and goals in the year 2022.	In 2021, the company is developing actions that will support the establishment of goals in the year of 2022, such as updating the GHG emissions inventory (year 2020) until June/21, evaluating the results and diagnosing practices and mitigation technologies already applied and potential applications until September/21, elaboration of MAC curve and establishment of a decarbonization plan until November/21.

			In 2022, the company will evaluate these alternatives for mitigating greenhouse gas emissions, validating its decarbonization planning and strategy, and will then be able to disclose its reduction targets.

C4.2

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

No other climate-related targets

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	2	18,846.28
To be implemented*	5	11,233.84
Implementation commenced*	3	63,054.19
Implemented*	0	0
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

Energy efficiency in production processes

Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

0

Scope(s)

Scope 1

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

0

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

0

Payback period

4-10 years

Estimated lifetime of the initiative

3-5 years

Comment

Projects are listed annually to make up the portfolio of energy efficiency initiatives based on the results of diagnoses carried out on the company's equipment. The results of these energy efficiency initiatives are reflected in a reduction in the consumption of complementary fuel in the Plant's energy matrix (Natural Gas) and/or a reduction in the consumption of purchased electricity. Initiatives linked to the acquisition of renewable electricity (based on the market) are also being evaluated.

C4.3c

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

Method	Comment
Financial optimization calculations	Energy efficiency projects are evaluated in terms of financial, energy and greenhouse gas emission reduction gains.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Product

Description of product/Group of products

high mechanical resistance and low thickness steels USI-RAVUR-400 (agricultural sector and heavy industry) and USI-LN-1000 (automotive).
More efficient steels with high technological value, with potential application in the photovoltaic power plant market (Usi Solar steel).

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

Lower GHG emission rate due to the manufacture of lighter vehicles/equipment due to the application of higher strength and low thickness steels. Renewable energy generation (photovoltaic) using Usiminas steel.

% revenue from low carbon product(s) in the reporting year

Comment

Lower GHG emission rate due to the manufacture of lighter vehicles/equipment due to the application of higher strength and low thickness steels. Renewable energy generation (photovoltaic) using Usiminas steel.

C-ST4.9

(C-ST4.9) Disclose your organization's best available techniques as a percentage of total plant capacity.

	% of total plant capacity	Primary reason for not having technique	Comment
Coke oven: Coke dry quenching	0	Other, please specify Technology not included in the installation project.	The installation project did not include this technology.
Coke oven: Coal moisture control process	100		Coal moisture is an operational control parameter consolidated in the operation of the Coke Plants.

Coke oven: Programmed heating	100		Programmed heating is applied in the combustion chambers of the coke oven batteries.
Sinter plant: Sinter cooler exhaust gas waste heat recovery	0	Other, please specify Technology not included in the installation project.	The installation project did not include this technology (CMC).
Sinter plant: Sinter strand waste-gas recycling	0	Other, please specify Technology not included in the installation project.	The installation project did not include this technology for recovering the sensible heat from the exhausted gas.
Sinter plant: Use of waste fuels in sinter mixture	7		Waste fuels are used in the sinter mixture, in particular the fine coke oven dedusting powder. The use of these waste fuels represents approximately 7% of the solid fuel load of the Sinter plant.
Blast furnace: Injection of pulverized coal, biomass or wastes	27		The practice regarding pulverized coal injection has been applied in Usiminas Blast Furnaces, including applying charcoal when available and technically possible. The application rate of pulverized coal in the total Blast Furnace fuel load is approximately 27%.
Blast furnace: Top recovery turbine	80		Technology installed and in operation in Blast Furnace 3, the only equipment that has the technical conditions. This Blast Furnace produced approximately 80% of Usiminas' pig iron in the period.
Blast furnace: Recuperator (air preheating) hot-blast stoves	0	Other, please specify Technology not included in the installation project.	Usiminas has air regenerators in all Blast Furnaces, however these equipments do not have an exhaust gas heat recovery system. The installation project did not include this technology (Recuperator Hot-Blast Stove).

Blast furnace: Computer aided control system for hot-blast stoves	100		Applied technology. Automation system (Level 1 and 2) to assist the operation of the regenerators, seeking energy efficiency.
Blast furnace: Slag granulation for cement industry	100		Applied technology.
Basic oxygen furnace: BOF gas and sensible heat recovery	0	Other, please specify BOF gas recovery interrupted / Technology not included in the installation project.	Usiminas interrupted the recovery of the steelmaking gas (BOF) due to the unavailability of the gasometer due to its accidental collapse in August/2018. The startup of the new gasometer is foreseen for 2021. Usiminas does not have the technology for the flare gas sensible heat recovery.
Basic oxygen furnace: Vessel bottom stirring	80		Combined blowing technology applied at Steel Mill 2. This steel mill produced approximately 80% of Usiminas' steel in the period.
Basic oxygen furnace: Programmed and preheated ladles	100		Applied technology
Casting: Absence of soaking pits and primary rolling of ingots	0	Other, please specify Not applicable	The Plant does not roll ingots, only slabs by continuous casting.
Casting: Near net shape casting, e.g. thin slab, thin strip, etc.	100		Currently, a small percentage of production is sent to foundry.
Hot rolling mill: Hot charging	20		Applied practice. Hot charge target above 200ºC. Approximate percentage of fillings that meet the target in the period.
Hot rolling mill: Recuperative/regenerative burners	0	Other, please specify Technology not included in the installation project.	The installation project did not include this technology.
Hot rolling mill: Walking beam furnace	95		Walking beam Technology – Walking beams applied in 5 of the

			6 hot rolling furnaces at Usiminas. Only one of them (TQ3 in Ipatinga) uses pusher technology. Approximately 95% of the production of laminates for the period was produced using Walking beam Technology.
Hot rolling mill: Variable speed drives on combustion air fans of reheat furnace	0	Other, please specify Technology not included in the installation project.	The installation project did not include this technology.
Integrated steel mill: Combined heat and power/cogeneration plant	40		Usiminas owns the Thermoelectric Plant Nº. 2, installed in Ipatinga, which operates with the cogeneration system. Of the total thermal energy consumption in the period, the percentage generated by this CTE is approximately 40%.
Integrated steel mill: Energy monitoring and management system	100		Usiminas has a unit in its organizational structure, responsible for the management, monitoring, production and distribution of energy and utilities.
Other	100		Additionally, practices that contribute to the reduction of GHG emissions are applied: Monitoring of critical consumption and reuse and recycling of waste and co-products in the process.

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

5,730,433.38

Comment

Total Emissions - Scope 1 of Usiminas (Steelmaking Unit).

Scope 2 (location-based)

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

106,208.33

Comment

Total Emissions - Scope 2 of Usiminas (Steelmaking Unit).

Scope 2 (market-based)

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

0

Comment

All Usiminas Scope 2 emissions (Steelmaking Unit) are based on location.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Brazil GHG Protocol Programme
IPCC Guidelines for National Greenhouse Gas Inventories, 2006

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)

5,730,433.38

Comment

Total Emissions - Scope 1 of Usiminas (Steelmaking Unit).

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 have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure

Comment

All Usiminas Scope 2 emissions (Steelmaking Unit) are based on location.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

106,208.33

Comment

Total Emissions - Scope 2 of Usiminas (Steelmaking Unit).

C6.4

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

No

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

Not evaluated

Please explain

The 2020 GHG emissions inventory was the first to address scope 3 related emission sources for Usiminas. In this first mapping, the categories "Waste generated in operations" and "Business trips (Air)" were considered.
The company intends to evolve in the mapping of these sources, aiming to increase the emissions inventory and consider other relevant categories of Scope 3 sources for the coming years.

Capital goods

Evaluation status

Not evaluated

Please explain

The 2020 GHG emissions inventory was the first to address scope 3 related emission sources for Usiminas. In this first mapping, the categories "Waste generated in operations" and "Business trips (Air)" were considered.
The company intends to evolve in the mapping of these sources, aiming to increase the emissions inventory and consider other relevant categories of Scope 3 sources for the coming years.

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

Evaluation status

Not evaluated

Please explain

The 2020 GHG emissions inventory was the first to address scope 3 related emission sources for Usiminas. In this first mapping, the categories "Waste generated in

operations" and "Business trips (Air)" were considered.
The company intends to evolve in the mapping of these sources, aiming to increase the emissions inventory and consider other relevant categories of Scope 3 sources for the coming years.

Upstream transportation and distribution

Evaluation status

Not evaluated

Please explain

The 2020 GHG emissions inventory was the first to address scope 3 related emission sources for Usiminas. In this first mapping, the categories "Waste generated in operations" and "Business trips (Air)" were considered.
The company intends to evolve in the mapping of these sources, aiming to increase the emissions inventory and consider other relevant categories of Scope 3 sources for the coming years.

Waste generated in operations

Evaluation status

Relevant, calculated

Metric tonnes CO2e

17,327.55

Emissions calculation methodology

Brazil GHG Protocol Programme

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

0

Please explain

Quantified emissions based on data from waste disposal control reports.

Business travel

Evaluation status

Not relevant, calculated

Metric tonnes CO2e

224.61

Emissions calculation methodology

Brazil GHG Protocol Programme

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

0

Please explain

Emissions quantified based on data from business travel control (air) reports maintained by the company.

Employee commuting

Evaluation status

Not evaluated

Please explain

The 2020 GHG emissions inventory was the first to address scope 3 related emission sources for Usiminas. In this first mapping, the categories "Waste generated in operations" and "Business trips (Air)" were considered.
The company intends to evolve in the mapping of these sources, aiming to increase the emissions inventory and consider other relevant categories of Scope 3 sources for the coming years.

Upstream leased assets

Evaluation status

Not evaluated

Please explain

The 2020 GHG emissions inventory was the first to address scope 3 related emission sources for Usiminas. In this first mapping, the categories "Waste generated in operations" and "Business trips (Air)" were considered.
The company intends to evolve in the mapping of these sources, aiming to increase the emissions inventory and consider other relevant categories of Scope 3 sources for the coming years.

Downstream transportation and distribution

Evaluation status

Not evaluated

Please explain

The 2020 GHG emissions inventory was the first to address scope 3 related emission sources for Usiminas. In this first mapping, the categories "Waste generated in operations" and "Business trips (Air)" were considered.
The company intends to evolve in the mapping of these sources, aiming to increase the emissions inventory and consider other relevant categories of Scope 3 sources for the coming years.

Processing of sold products

Evaluation status

Not evaluated

Please explain

The 2020 GHG emissions inventory was the first to address scope 3 related emission sources for Usiminas. In this first mapping, the categories "Waste generated in operations" and "Business trips (Air)" were considered.
The company intends to evolve in the mapping of these sources, aiming to increase the emissions inventory and consider other relevant categories of Scope 3 sources for the coming years.

Use of sold products

Evaluation status

Not evaluated

Please explain

The 2020 GHG emissions inventory was the first to address scope 3 related emission sources for Usiminas. In this first mapping, the categories "Waste generated in operations" and "Business trips (Air)" were considered.
The company intends to evolve in the mapping of these sources, aiming to increase the emissions inventory and consider other relevant categories of Scope 3 sources for the coming years.

End of life treatment of sold products

Evaluation status

Not evaluated

Please explain

The 2020 GHG emissions inventory was the first to address scope 3 related emission sources for Usiminas. In this first mapping, the categories "Waste generated in operations" and "Business trips (Air)" were considered.
The company intends to evolve in the mapping of these sources, aiming to increase the emissions inventory and consider other relevant categories of Scope 3 sources for the coming years.

Downstream leased assets

Evaluation status

Not evaluated

Please explain

The 2020 GHG emissions inventory was the first to address scope 3 related emission sources for Usiminas. In this first mapping, the categories "Waste generated in operations" and "Business trips (Air)" were considered.
The company intends to evolve in the mapping of these sources, aiming to increase the emissions inventory and consider other relevant categories of Scope 3 sources for the coming years.

Franchises

Evaluation status

Not evaluated

Please explain

The 2020 GHG emissions inventory was the first to address scope 3 related emission sources for Usiminas. In this first mapping, the categories "Waste generated in operations" and "Business trips (Air)" were considered.
The company intends to evolve in the mapping of these sources, aiming to increase the emissions inventory and consider other relevant categories of Scope 3 sources for the coming years.

Investments

Evaluation status

Not evaluated

Please explain

The 2020 GHG emissions inventory was the first to address scope 3 related emission sources for Usiminas. In this first mapping, the categories "Waste generated in operations" and "Business trips (Air)" were considered.
The company intends to evolve in the mapping of these sources, aiming to increase the emissions inventory and consider other relevant categories of Scope 3 sources for the coming years.

Other (upstream)

Evaluation status

Not evaluated

Please explain

The 2020 GHG emissions inventory was the first to address scope 3 related emission sources for Usiminas. In this first mapping, the categories "Waste generated in operations" and "Business trips (Air)" were considered.
The company intends to evolve in the mapping of these sources, aiming to increase the emissions inventory and consider other relevant categories of Scope 3 sources for the coming years.

Other (downstream)

Evaluation status

Not evaluated

Please explain

The 2020 GHG emissions inventory was the first to address scope 3 related emission sources for Usiminas. In this first mapping, the categories "Waste generated in operations" and "Business trips (Air)" were considered.
The company intends to evolve in the mapping of these sources, aiming to increase the emissions inventory and consider other relevant categories of Scope 3 sources for the coming years.

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	13,863.95	Scope 1: 8.428,11 Scope 3: 5.435,84

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

0.47

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

5,836,641.71

Metric denominator

unit total revenue

Metric denominator: Unit total

12,370,728

Scope 2 figure used

Location-based

% change from previous year

0

Direction of change

No change

Reason for change

Reason for Variation: There was no report referring to the previous year.

Comment: Indicator calculated using as numerator the emissions data (scope 1 and 2) of the Ipatinga and Cubatão Plants and as denominator the net revenue results of the Steelmaking business unit of Usiminas (R$ 12,370,728.00).

C-ST6.14

(C-ST6.14) State your organization's emissions and energy intensities by steel production process route.

Process route

Blast furnace- basic oxygen furnace

Emissions intensity figure, metric tons CO2e per metric ton of crude steel production

2.06

Energy intensity figure, GJ (LHV) per metric ton of crude steel production

23.17

Methodology applied

GHG Protocol

Comment

To calculate the intensity of emissions and energy, only data referring to the Ipatinga Plant were considered, since the primary areas of the Cubatão Plant remained deactivated in 2020 and, therefore, there was no production of crude steel (denominator of this indicator).

Emissions intensity indicator calculated using as numerator the emissions data (scope 1 and 2) of the Ipatinga Plant and as denominator the production results of the Ipatinga Plant: (5,724.031.45 tCO2e / 2,781,352.37 tCS).

Energy intensity indicator calculated using the energy consumption data of the Ipatinga Plant as the numerator and the production results of the Ipatinga Plant as the denominator: (64,451,649.53 GJ / 2,781,352.37 tCS).

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
CH4	265.51	IPCC Fourth Assessment Report (AR4 - 100 year)
CO2	5,724,192.5	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	690.17	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	5,285.21	IPCC Fourth Assessment Report (AR4 - 100 year)

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Brazil	5,730,433.38

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)
Steelmaking	5,730,433.38

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
Ipatinga Plant	5,636,087.54	-19.486827	-42.542354
Cubatão Plant	94,345.85	-23.852775	-46.371958

C7.3c

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

Activity	Scope 1 emissions (metric tons CO2e)
Stationary combustion	4,368,405.82
Mobile combustion	6,639.47
Fugitive	17,781.36
Industrial processes	1,337,540.32
Solid waste and liquid effluents	66.41

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	Comment
Steel production activities	5,730,433.38	Total value (Scope 1) considering Ipatinga and Cubatão plants.

C7.5

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

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based	Purchased and consumed electricity, heat,	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2

		(metric tons CO2e)	steam or cooling (MWh)	market-based approach (MWh)
Brazil	106,208.33	0	0	0

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)
Steelmaking	106,208.33	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)
Ipatinga Plant	87,943.91	0
Cubatão Plant	18,264.42	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)
Acquisition of electricity	106,208.33	0

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 CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Steel production activities	106,208.33	0	Total value (Scope 2) considering Ipatinga and Cubatão plants.

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?

This is our first year of reporting, so we cannot compare to last year

C8. Energy

C8.1

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

More than 30% but less than or equal to 35%

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	No
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	0	7,189,968.8	7,189,968.8
Consumption of purchased or acquired electricity		0	1,624,150.9	1,624,150.97
Consumption of self-generated non-fuel renewable energy		0		0
Total energy consumption		0	8,814,119.7	8,814,119.7

C-ST8.2a

(C-ST8.2a) Report your organization's energy consumption totals (excluding feedstocks) for steel production activities in MWh.

	Heating value	Total MWh
Consumption of fuel (excluding feedstock)	Unable to confirm heating value	7,189,968.8
Consumption of purchased or acquired electricity		1,624,150.97
Consumption of self-generated non-fuel renewable energy		0
Total energy consumption		8,814,119.7

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	Yes

C8.2c

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

Fuels (excluding feedstocks)
Blast Furnace Gas

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
2,719,011.12

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
1,791,644.31

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-cogeneration or self-trigeneration
927,366.8

Emission factor
0.9792

Unit
metric tons CO2e per MWh

Emissions factor source
Results of chromatographic analyzes of the gas generated by Usiminas in 2020.

Comment

Fuels (excluding feedstocks)
Coke Oven Gas

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization

1,604,611.79

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

1,114,114.07

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-cogeneration or self-trigeneration

490,497.72

Emission factor

0.1418

Unit

metric tons CO2e per MWh

Emissions factor source

Results of chromatographic analyzes of the gas generated by Usiminas in 2020.

Comment

Fuels (excluding feedstocks)

Basic Oxygen Furnace Gas (LD Gas)

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

303,629.61

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

303,629.61

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0.6552

Unit
metric tons CO2e per MWh

Emissions factor source
IPCC 2006

Comment

Fuels (excluding feedstocks)
Natural Gas

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
1,697,559.51

MWh fuel consumed for self-generation of electricity
305,149.99

MWh fuel consumed for self-generation of heat
1,369,122.29

MWh fuel consumed for self-generation of steam
23,287.22

MWh fuel consumed for self-cogeneration or self-trigeneration
0

Emission factor
0.2019

Unit
metric tons CO2e per MWh

Emissions factor source
IPCC 2006

Comment

Fuels (excluding feedstocks)
Liquefied Petroleum Gas (LPG)

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization

527,844.77

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

527,844.77

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.9846

Unit

metric tons CO2e per metric ton

Emissions factor source

IPCC 2006

Comment

Fuels (excluding feedstocks)

Tar

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

311,767.21

MWh fuel consumed for self-generation of electricity

311,767.21

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

3.24207

Unit

metric tons CO2e per metric ton

Emissions factor source

Own chemical analysis

Comment

Fuels (excluding feedstocks)

Acetylene

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

214.37

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

214.37

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

3.38

Unit

metric tons CO2e per metric ton

Emissions factor source

IPCC 2006

Comment

Fuels (excluding feedstocks)

Petrol

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

1,072.61

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

1,072.61

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

1.6628

Unit

metric tons CO2e per m3

Emissions factor source

IPCC 2006

Comment

Fuels (excluding feedstocks)

Diesel

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

24,257.77

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

24,257.77

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.382

Unit

metric tons CO2e per m3

Emissions factor source

IPCC 2006

Comment

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	335,140.31	335,140.31	0	0
Heat	315,106,284	287,393,323	0	0
Steam	98,419,991	83,640,870	0	0
Cooling	0	0	0	0

C-ST8.2d

(C-ST8.2d) Provide details on the electricity, heat, and steam your organization has generated and consumed for steel production activities.

	Total Gross generation (MWh) inside steel sector boundary	Generation that is consumed by the organization (MWh) inside steel sector boundary
Electricity	335,140.31	335,140.31
Heat	315,106,284	287,393,323
Steam	98,419,991	83,640,870

C-ST8.3

(C-ST8.3) Disclose details on your organization's consumption of feedstocks for steel production activities.

Feedstocks

Coal

Total consumption

1,081,451.88

Total consumption unit
metric tons

Dry or wet basis?
Dry basis

Inherent carbon dioxide emission factor of feedstock, metric tons CO2 per consumption unit
2.63

Heating value of feedstock, MWh per consumption unit
8.83

Heating value
LHV

Comment

Feedstocks
Blast furnace coal

Total consumption
294,839.13

Total consumption unit
metric tons

Dry or wet basis?
Dry basis

Inherent carbon dioxide emission factor of feedstock, metric tons CO2 per consumption unit
2.48

Heating value of feedstock, MWh per consumption unit
8.83

Heating value
LHV

Comment

Feedstocks
Coke

Total consumption

1,178,819.12

Total consumption unit

metric tons

Dry or wet basis?

Dry basis

Inherent carbon dioxide emission factor of feedstock, metric tons CO2 per consumption unit

3.33

Heating value of feedstock, MWh per consumption unit

8.02

Heating value

LHV

Comment

Coke used in Blast Furnaces and Sintering

Feedstocks

Other, please specify

Wash Oil 2 (Fuel Oil)

Total consumption

1,532

Total consumption unit

metric tons

Dry or wet basis?

Dry basis

Inherent carbon dioxide emission factor of feedstock, metric tons CO2 per consumption unit

3.2

Heating value of feedstock, MWh per consumption unit

11.97

Heating value

LHV

Comment

Feedstocks

Other, please specify

Diesel

Total consumption

1,332.09

Total consumption unit

liters

Dry or wet basis?

Dry basis

Inherent carbon dioxide emission factor of feedstock, metric tons CO2 per consumption unit

2.11

Heating value of feedstock, MWh per consumption unit

9.94

Heating value

LHV

Comment

Feedstocks

Charcoal

Total consumption

2,332.46

Total consumption unit

metric tons

Dry or wet basis?

Dry basis

Inherent carbon dioxide emission factor of feedstock, metric tons CO2 per consumption unit

3.3

Heating value of feedstock, MWh per consumption unit

8.19

Heating value

LHV

Comment

Feedstocks

Other, please specify

Green Petroleum Coke

Total consumption

416,770.72

Total consumption unit

metric tons

Dry or wet basis?

Dry basis

Inherent carbon dioxide emission factor of feedstock, metric tons CO2 per consumption unit

3.26

Heating value of feedstock, MWh per consumption unit

9.97

Heating value

LHV

Comment

Feedstocks

Coke

Total consumption

997.22

Total consumption unit

metric tons

Dry or wet basis?

Dry basis

Inherent carbon dioxide emission factor of feedstock, metric tons CO2 per consumption unit

3.59

Heating value of feedstock, MWh per consumption unit

7.41

Heating value
LHV

Comment

Feedstocks
Other, please specify
Antracito

Total consumption
110,897.87

Total consumption unit
metric tons

Dry or wet basis?
Dry basis

Inherent carbon dioxide emission factor of feedstock, metric tons CO2 per consumption unit
2.8

Heating value of feedstock, MWh per consumption unit
7.84

Heating value
LHV

Comment
Anthracites were consolidated; Peruvian, Russian and South African.
The emission factor described is the average of the three.

C9. Additional metrics

C9.1

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

Description
Energy usage

Metric value
67,567,598.53

Metric numerator

Total energy consumption (GJ)-Ipatinga and Cubatão

Metric denominator (intensity metric only)

% change from previous year

0

Direction of change

No change

Please explain

First year of report.

Description

Waste

Metric value

1,689.33

Metric numerator

Materials used from recycling (kt)

Metric denominator (intensity metric only)

% change from previous year

0

Direction of change

No change

Please explain

First year of report.

C-ST9.3a

(C-ST9.3a) Report your organization's steel-related consumption, production and capacity figures by steel plant.

	Metal scrap consumption (metric tons)	Blast furnace iron consumption (metric tons)	Direct reduced iron consumption (metric tons)	Crude steel production (metric tons)	Crude steel capacity (metric tons)
Basic oxygen furnace	594,608.59	3,156,364.13	0	2,781,352.37	8,700,000

Other	0	0	0	0	0
Total	594,608.59	3,156,364.13	0	2,781,352.37	8,700,000

C-ST9.3b

(C-ST9.3b) Report your organization's steel-related production outputs and capacities by product.

Product	Production (metric tons)	Capacity (metric tons)	Comment
Coke (including coke breeze)	1,178,807	3,630,000	Licensed nominal production capacity of the Coke Plants at the Ipatinga and Cubatão Plants. In 2020, there was no coke production at the Cubatão Plant, as activities in the primary areas are temporarily disabled.
Sinter	4,656,923	11,410,000	Licensed nominal production capacity of Sintering at the Ipatinga and Cubatão Plants. In 2020, there was no sinter production at the Cubatão Plant, as activities in the primary areas are temporarily disabled.
Blast furnace iron	2,631,003	9,500,000	Licensed nominal production capacity of the Blast Furnaces at the Ipatinga and Cubatão Plants. In 2020, there was no production of pig iron at the Cubatão Plant, as activities in the primary areas are temporarily disabled.

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	No	The company has been investing in R&D for the development of high-strength and high technological value steels that provide greater energy efficiency and a lower rate of emission of greenhouse gases indirectly.

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

Declaração de Verificação - Usiminas.pdf

Page/ section reference

Verification Statements ABNT Nºs 367.037/21, 367.038/21 e 367.039/21, issued on 06/24/21

Relevant standard

ISO14064-3

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

Declaração de Verificação - Usiminas.pdf

Page/ section reference
Verification Statements ABNT Nºs 367.037/21, 367.038/21 e 367.039/21, issued on 06/24/21.

Relevant standard
ISO14064-3

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: Waste generated in operations

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

Declaração de Verificação - Usiminas.pdf

Page/section reference
Verification Statements ABNT Nºs 367.037/21, 367.038/21 e 367.039/21, issued on 06/24/21.

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 3 category
Scope 3: Business travel

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

Declaração de Verificação - Usiminas.pdf

Page/section reference
Verification Statements ABNT Nºs 367.037/21, 367.038/21 e 367.039/21, issued on 06/24/21.

Relevant standard
ISO14064-3

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?
No, we do not verify any other climate-related information reported in our CDP disclosure

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?

Structuring the organization's sustainability governance and MRV instruments for managing greenhouse gas emissions.
Participation in councils, forums and working groups that aim to discuss regulatory systems on the subject

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

C11.3

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

No, and we do not currently anticipate doing so in the next two years

C12. Engagement

C12.1

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

No, we do not engage

C12.1e

(C12.1e) Why do you not engage with any elements of your value chain on climate-related issues, and what are your plans to do so in the future?

At this moment, Usiminas is prioritizing the structuring of the organization's internal sustainability governance and MRV instruments for managing greenhouse gas emissions. The company understands the importance of promoting engagement with elements of the value chain regarding climate issues and intends to do so in the future.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Trade associations

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

Instituto Aço Brasil (Brazil Steel Institute)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The sector has been discussing its position through the Instituto de Aço Brasil and intends to formally report it in the future

How have you influenced, or are you attempting to influence their position?

By participating in the meetings of the Sustainability Committee of this institute, contributing to the discussions, raising data and facts about the company's reality, among others.

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

By participating in the meetings of the Sustainability Committee of this institute, contributing to the discussions, raising data and facts about the company's reality, among others.

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

Page/Section reference

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

Link of the report: https://www.usiminas.com/wp-content/uploads/hotsites_portal_sap/usiminas-rs-2020-pi-en-0207.pdf

Publication

In voluntary communications

Status

Complete

Attach the document

Page/Section reference

Content elements

Emissions figures
Other, please specify
Results of the verification of the GHG Emissions inventory.

Comment

Public Registry of the Brazilian GHG Protocol Program.

Link of the initiative with the list of participants and published inventories: https://www.registropublicodeemissoes.com.br/participantes

C15. 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.

Learn more about Usiminas' Sustainability agenda through the portal https://www.usiminas.com/sustentabilidade/ and also through the company's 2020 Sustainability Report through the link: https://www.usiminas.com/wp-content /uploads/hotsites_portal_sap/usiminas-rs-2020-pi-en-0207.pdf .

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Industrial Vice-President	Chief Operating Officer (COO)

SC. Supply chain module

SC0.0

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

Headquartered in Belo Horizonte, state of Minas Gerais, Usiminas operates in the Brazilian flat steel market. One of the main steel complexes in Latin America, with 58 years of operation, the Company works in the entire sector chain, from ore extraction, through steel production, to its transformation into products and capital goods customized for the market.
The steel produced and transformed by Usiminas Companies is present in the daily routine of millions of people in the form of cars, houses, buildings, bridges, home appliances, vessels, steel furniture and agricultural equipment and machinery. Through cutting-edge products and high added-value services, the Company moves the industry and contributes to Brazil’s development, by way of operations strategically located in the country’s most industrialized regions.
Usiminas' vision and values

sustain the Company's Management and guide it with a focus on perpetuity and on the contribution to the development of the economy, the environment and society. The Company’s business purpose is to offer full, integrated and tailored solutions, in line with each customer’s needs for the most diverse industrial challenges in Brazil, by having its products and services present in the most relevant productive chains: automotive, wind and solar power, home

appliances, civil construction, naval, machinery and equipment, tubes, oil and gas, among others.
Usiminas creates value to society by offering quality products and services to its customers, generating return to shareholders, fostering its employees' personal and professional development as well as controlling and mitigating environmental and social impacts. The Company also invests in the development of the communities where it operates, whether through structured partnerships with public authorities or through the Usiminas Institute and São
Francisco Xavier Foundation (FSFX), the Company's social branches in the healthcare, education, culture and sports fields.
With more than 23 thousand employees (12.1 thousand own workers and 10.9 thousand outsourced employees) and total net revenue of R$16.1 billion in 2020 (8% up on 2019, when the company reached R$14.9 billion), Usiminas has 4 business units, operating through 5 companies: Steelmaking (Usiminas and Unigal Usiminas), Mining (Mineração Usiminas) Steel Processing (Soluções Usiminas) and Capital Goods (Usiminas Mecânica).
In the steel business unit, object of this report Usiminas manufactures and sales the following flat carbon steel products :plates, thick plates, hot-rolled flat steel products, cold-rolled flat steel products (uncoated), electrogalvanized and galvanized steel (coated). By using a cutting-edge technology that has sustainable features, the Company stands out in the domestic flat steel production.
Both in Ipatinga, state of Minas Gerais, and in Cubatão, state of São Paulo, the steelworks are integrated. At the Cubatão plant, the primary areas (from raw material yard to steel mill) are temporary shutdown. In 2020, the Company has also shutdown 2 out of the 3 blast furnaces at the Minas Gerais plant, due to the pandemic's effects on the demand.

SC0.1

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

	Annual Revenue
Row 1	12,370,728

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

No

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.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

Information for question SC1.1 is not available

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
Other, please specify Diversity of product lines	Need to develop tools to quantify specific GHG emissions for each product (carbon footprint by product).

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.

The organization intends to develop tools to quantify specific GHG emissions for each product (carbon footprint by product).

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

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?

No, I am not providing data