

Kobe Steel., Ltd. - Climate Change 2019

C0. Introduction

C0.1

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

Name : Kobe Steel, Ltd.

Founded : September 1, 1905

Capital : 250,900 Million-Yen

Net Sales : 1,971,869 Million-Yen

Employees : 39,341

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	Select the number of past reporting years you will be providing emissions data for
Row 1	April 1 2018	March 31 2019	Please select	<Not Applicable>

C0.3

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

China

Japan

Malaysia

Thailand

United States of America

C0.4

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

JPY

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 consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.

Financial 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
Electric arc furnace operations
Hot-rolling
Cold rolling and finishing
Scrap steel recycling
Oxygen production
Lime production

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
Director on board	Chairman of CSR Committee (Director, Senior Managing Executive Officer)

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	Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues	Regarding important matters related to CO2 reductions that could have a material impact on management, The Executive Council deliberates and decides on this, and the Board of Directors oversees it. Since fiscal 2019, the CO2 Reduction Promotion Subcommittee, which considers measures to reduce CO2, was established under the CSR Committee, which is an advisory body to the Executive Council. In addition, "Working Group on Technologies to Reduce CO2" was established under R&D Committee to consider technical consideration of CO2 reduction. These organizations work together to reduce CO2.

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
Other committee, please specify (CSR Committee) <i>prevention</i>	Both assessing and managing climate-related risks and opportunities <i>climate-related risks</i>	As important matters arise

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).

The CSR Committee has been established as an advisory body to our Executive Council, and the CO2 Reduction Promotion Subcommittee has been established as a subcommittee. In addition, the "Working Group on Technologies to Reduce CO2" is newly established under the "R&D Committee," which is an advisory body to the Executive Council. These organizations work together to reduce CO2.

C1.3

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

Yes

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).

Who is entitled to benefit from these incentives?

All employees

Types of incentives

Recognition (non-monetary)

Activity incentivized

Energy reduction project

Comment

Each factory is engaged in energy conservation activities by all employees as part of environmental improvement activities and QC activities. Outstanding cases among these activities are awarded from the head office or business division once or twice a year. Among them, particularly good examples are recommended to the outside award system.

C2. Risks and opportunities

C2.1

(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.

	From (years)	To (years)	Comment
Short-term	1	1	
Medium-term	3	5	
Long-term	6		longer than Medium-term

C2.2

(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.

A specific climate change risk identification, assessment, and management process

C2.2a

(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Annually	3 to 6 years	The CSR Committee has been established as an advisory body to our Executive Council, and the CO2 Reduction Promotion Subcommittee has been established as a subcommittee. In addition, the "Working Group on Technologies to Reduce CO2" is newly established under the "R&D Committee," which is an advisory body to the Executive Council. These organizations work together to reduce CO2.

C2.2b

(C2.2b) Provide further details on your organization's process(es) for identifying and assessing climate-related risks.

The Executive Council and its advisory body, the CSR Committee (and its subcommittee), examine and propose environmental management policies. Based on this policy, we will expand through our business units to Kobe Steel's facilities and group companies to identify risks and opportunities. Risk priorities are determined by national, municipal and trade associations' goals and achievements. Priorities are also determined based on social and customer trends.

C2.2c

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, sometimes included	The Japan Iron and Steel Federation(JISF) has set a following target. "The target is a CO2 emission reduction of 5 million tons by FY2020 vs. expected emissions for each production volume (BAU) by fully implementing state-of-the-art technologies. Of this reduction, JISF prioritizes 3 million tons of reduction arising from energy conservation and other voluntary actions by steelmakers. For waste plastics and other recycled materials, the emission reduction includes only a decrease resulting from the increase in the volume of these materials collected vs. the FY2005 level." If each company's reduction targets is determined and assigned to us, we have to reduce CO2 emissions.
Emerging regulation	Relevant, sometimes included	The CO2 Reductions Promotion Subcommittee is paying close attention to regulatory trends.
Technology	Relevant, always included	"CO2 reduction in manufacturing processes" and "Contributions to CO2 Emissions Reductions through Technologies and Products and Services" are considered.
Legal	Relevant, always included	We are constantly evaluating Act on the Rational Use of Energy and Act on Promotion of Global Warming Countermeasures in Japan.
Market	Relevant, sometimes included	Consumer behavior will change by raising public awareness of climate change. As a result, the need for emission reductions is expected to increase.
Reputation	Relevant, always included	We believe that understanding of local communities is important, and we are working to hold briefings and publish integrated reports.
Acute physical	Relevant, sometimes included	Heavy rains are expected to flood and damage factories and prevent them from continuing operations.
Chronic physical	Relevant, sometimes included	Measures, to cope with the decrease in cooling efficiency due to the rise in temperature and sea water temperature, are being examined.
Upstream	Not evaluated	
Downstream	Relevant, always included	Contributions to CO2 emissions reductions through technologies and products and services are considered.

C2.2d

(C2.2d) Describe your process(es) for managing climate-related risks and opportunities.

The Executive Council and its advisory body, the CSR Committee (and its subcommittee), examine and propose environmental management policies. Based on this policy, we will expand through our business units to Kobe Steel's facilities and group companies to identify risks and opportunities. Risk priorities are determined by national, municipal and trade associations' goals and achievements. Priorities are also determined based on social and customer trends.

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

Transition risk

Primary climate-related risk driver

Policy and legal: Other

Type of financial impact

Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

Company- specific description

The Japan Iron and Steel Federation(JISF) has set a following target. "The target is a CO2 emission reduction of 5 million tons by FY2020 vs. expected emissions for each production volume (BAU) by fully implementing state-of-the-art technologies. Of this reduction, JISF prioritizes 3 million tons of reduction arising from energy conservation and other voluntary actions by steelmakers. For waste plastics and other recycled materials, the emission reduction includes only a decrease resulting from the increase in the volume of these materials collected vs. the FY2005 level." If each company's reduction targets is determined and assigned to us, we have to reduce CO2 emissions.

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

The Japan Iron and Steel Federation has set targets for 2020. Capital investments are incurred to reduce CO2 emissions without purchasing emission credits.

Management method

CO2 emissions were reduced through the consolidation of manufacturing processes. Specifically, the upper process was consolidated at Kakogawa Works.

Cost of management**Comment****Identifier**

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Physical risk

Primary climate-related risk driver

Acute: Increased severity of extreme weather events such as cyclones and floods

Type of financial impact

Increased capital costs (e.g., damage to facilities)

Company- specific description

Heavy rains are expected to flood and damage factories and prevent them from continuing operations.

Time horizon

Short-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

We estimate that: 1) Loss of production opportunities 2) damage to production equipments 3) stop of logistics 4) stop of utilities. As a result, losses are incurred depending on the period of suspension.

Management method

Heavy rain measures are planned and implemented at each facilities.

Cost of management**Comment**

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Customer

Risk type

Transition risk

Primary climate-related risk driver

Market: Changing customer behavior

Type of financial impact

Reduced demand for goods and/or services due to shift in consumer preferences

Company- specific description

Consumer behavior will change by raising public awareness of climate change. As a result, the need for emission reductions is expected to increase.

Time horizon

Long-term

Likelihood

About as likely as not

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

R&D expenses or capital investments may increase to reduce CO2 emissions in their manufacturing processes.

Management method

Evaluate the difference between actual greenhouse gas emissions in the manufacturing process and industry organization's targets. Product development through surveys of customer needs regarding climate change.

Cost of management**Comment**

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?

Supply Chain

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Type of financial impact

Increased revenue through demand for lower emissions products and services

Company-specific description

With a new climate-change framework, CO2 emissions reductions are underway in many countries. Since We manufacture lightweight parts for automobiles etc. and high-performance compressors, sales of these products are expected to increase.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

High

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

Sales of MIDREX processing plants which directly reduce iron ore with reformed gas from natural gas, light-weight automotive components, and high-efficiency compressors are expected to increase.

Strategy to realize opportunity

We implement PR (introduction of environment-related products into sustainability reports, utilization of the media, etc.), strengthen sales activities, and conduct joint research and development with related ministries and agencies and customers.

Cost to realize opportunity**Comment**

Implemented as a usual business activity.

Identifier

Opp2

Where in the value chain does the opportunity occur?

Customer

Opportunity type

Products and services

Primary climate-related opportunity driver

Development of climate adaptation and insurance risk solutions

Type of financial impact

Increased revenue through new solutions to adaptation needs (e.g., insurance risk transfer products and services)

Company-specific description

It is estimated that the frequent occurrence of severe disasters caused by climate changes caused by the increase in CO2 could increase sales of products such as permeation type sand control dams.

Time horizon

Long-term

Likelihood

Unknown

Magnitude of impact

Low

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

Sales volume of related products (see Company-specific description column) is expected to increase.

Strategy to realize opportunity

We implement PR (introduction of environment-related products into sustainability reports, utilization of the media, etc.), strengthen sales activities, and conduct joint research and development with related ministries and agencies and customers.

Cost to realize opportunity**Comment**

Implemented as a usual business activity.

Identifier

Opp3

Where in the value chain does the opportunity occur?

Customer

Opportunity type

Products and services

Primary climate-related opportunity driver

Shift in consumer preferences

Type of financial impact

Better competitive position to reflect shifting consumer preferences, resulting in increased revenues

Company-specific description

It is expected that the opportunity to choose low fuel consumption vehicle(also vessel and airplane) will increase by increasing awareness of consumers around the world. Since we manufacture products to contribute lightweight of vehicle, vessel, and airplane, it is estimated that the sales of those products will increase.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

High

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

Sales of related products expand and the company's existence value increases.

Strategy to realize opportunity

We implement PR (introduction of environment-related products into sustainability reports, utilization of the media, etc.), strengthen sales activities, and conduct joint research and development with related ministries and agencies and customers.

Cost to realize opportunity**Comment**

Implemented as a usual business activity.

C2.5**(C2.5) Describe where and how the identified risks and opportunities have impacted your business.**

	Impact	Description
Products and services	Impacted for some suppliers, facilities, or product lines	We are developing low-carbon products and technologies such as hydrogen-related equipment.
Supply chain and/or value chain	Impacted for some suppliers, facilities, or product lines	Measures against heavy rain are planned and implemented at each facility.
Adaptation and mitigation activities	Impacted for some suppliers, facilities, or product lines	In order to reduce CO2 emissions, capital investments are being made at each facility.
Investment in R&D	Impacted for some suppliers, facilities, or product lines	We are developing low-carbon products and technologies such as hydrogen-related equipment.
Operations	Not evaluated	Not evaluated
Other, please specify	Please select	

C2.6

(C2.6) Describe where and how the identified risks and opportunities have been factored into your financial planning process.

	Relevance	Description
Revenues	Not evaluated	Not evaluated
Operating costs	Impacted	There is an impact as we invest in equipment for energy saving.
Capital expenditures / capital allocation	Not evaluated	Not evaluated
Acquisitions and divestments	Not evaluated	Not evaluated
Access to capital	Not evaluated	Not evaluated
Assets	Not evaluated	Not evaluated
Liabilities	Not evaluated	Not evaluated
Other	Please select	

C3. Business Strategy

C3.1

(C3.1) Are climate-related issues integrated into your business strategy?

Yes

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform your business strategy?

No, but we anticipate doing so in the next two years

C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b

(C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b) Indicate whether your organization has developed a low-carbon transition plan to support the long-term business strategy.

In development, we plan to complete it within the next 2 years

C3.1c

(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.

i. A company-specific explanation of how business objectives and strategy have been influenced by climate-related issues;

-Achieving climate objectives in each industry organization is considered when developing budgets and medium-term business plans. Regarding sales plans, we will consider strengthening sales of products related to climate change.

ii. Explanation of whether your business strategy is linked to an emissions reductions target or energy reduction target;

-Formulation and implementation of low carbon society implementation plans of industry organizations and capital investment plans to achieve the targets of the Act on the Rational Use of Energy in Japan.

iv. What aspects of climate change have influenced the strategy (e.g. need for adaptation, regulatory changes, or opportunities to develop green business);

-To meet the growing demand for fuel-cell vehicles that do not emit CO₂, we have developed and delivered compressors and other related equipment for stationary hydrogen stations. (Integrated Report2018, p. 69, 70)

v. How the short-term strategy has been influenced by climate change;

-Review of investment standards to promote energy conservation investment as a measure against global warming, etc.

vi. How the long-term strategy has been influenced by climate change;

-Developing new technologies that will lead to future eco-business.

vii. How this is gaining a strategic advantage over your competitors;

-Synergies between business units and fields are expected. Compared to competitors, there are many business units and fields (materials, energy, machinery, energy and resource engineering, etc.). In addition, we have an R&D laboratories that links our business units and fields.

viii. How the Paris Agreement has influenced the business strategy (e.g. the process of transition planning alongside the ratcheting of Intended Nationally Determined Contributions (INDCs));

-It is necessary to respond to the low carbon society action plan of each industry organization and the global warming countermeasure plans of each local government.

C3.1g

(C3.1g) Why does your organization not use climate-related scenario analysis to inform your business strategy?

The CSR Committee has been established as an advisory body to our Executive Council, and the CO₂ Reduction Promotion Subcommittee has been established as a subcommittee. In addition, the "Working Group on Technologies to Reduce CO₂" is newly established under the "R&D Committee," which is an advisory body to the Executive Council. These organizations work together to reduce CO₂, and in the future we will examine our medium-to long-term strategies and conduct scenario-based analyses.

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 do not have 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	No significant change is expected.	Two cross-sectional organization was established to implement activities to reduce CO2, and activities to set goals were started. Our goals will be introduced within the next two years.

C4.2

(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.

Target

Renewable fuel

KPI – Metric numerator

Biomass fuel for coal-fired power generation

KPI – Metric denominator (intensity targets only)

Base year

Start year

Target year

KPI in baseline year

KPI in target year

% achieved in reporting year

Target Status

New

Please explain

Biomass fuel will be used as part of the fuel for coal-fired power plant, which is currently under construction, to improve power generation efficiency and reduce CO2 emissions.

Part of emissions target

Is this target part of an overarching initiative?

Please select

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	0	0
To be implemented*	39	204013
Implementation commenced*	39	8148
Implemented*	85	25778
Not to be implemented	5	212

C4.3b

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

Initiative type

Energy efficiency: Processes

Description of initiative

Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

133

Scope

Scope 1

Voluntary/Mandatory

Voluntary

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

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

Payback period

Please select

Estimated lifetime of the initiative

6-10 years

Comment

Contributing to both Scope1 and Scope2.

Initiative type

Energy efficiency: Processes

Description of initiative

Other, please specify (We implement a companywide energy management project. Each facility is engaged in the following activities. Process improvement, equipment consolidation, operation rationalization, etc.)

Estimated annual CO2e savings (metric tonnes CO2e)

6226

Scope

Scope 1

Voluntary/Mandatory

Voluntary

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

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

Payback period

Please select

Estimated lifetime of the initiative

Please select

Comment

Contributing to both Scope1 and Scope2.

Initiative type

Process emissions reductions

Description of initiative

Other, please specify (We implement a companywide energy improvement project. Each facility is engaged in the following activities. Introduction of inverters, improvement of furnaces, replacement of boilers, etc.)

Estimated annual CO2e savings (metric tonnes CO2e)

445

Scope

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)**Investment required (unit currency – as specified in C0.4)****Payback period**

Please select

Estimated lifetime of the initiative

Please select

Comment

Contributing to both Scope1 and Scope2.

Initiative type

Other, please specify (We implement a companywide energy management project. At each facility, various activities such as turning off lights during lunch are carried out.)

Description of initiative

<Not Applicable>

Estimated annual CO2e savings (metric tonnes CO2e)

18974

Scope

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)**Investment required (unit currency – as specified in C0.4)****Payback period**

Please select

Estimated lifetime of the initiative

Please select

Comment

Contributing to both Scope1 and Scope2.

C4.3c

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

Method	Comment
Compliance with regulatory requirements/standards	Considering the amount of investment and the amount of energy cost reduction by investment, investment is made if the number of years of investment recovery is less than a certain value.
Partnering with governments on technology development	The company is participating in "Developing environmentally conscious processing technologies (COURSE50)" that reduce CO2 from blast furnaces by 30% and "Ferrocake-Utilizing Process Technologies" to improve the energy-efficiency of blast furnaces by 10% In cooperation with the Council for Carbon Recycling and other organizations promoted by the Ministry of Economy, Trade and Industry, we will also promote various technological developments related to CO2 reductions.
Dedicated budget for low-carbon product R&D	Low-carbon products are being developed in the steel, aluminum and copper, and machinery businesses.

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

Group of products

Description of product/Group of products

In the automobile field, supply steel products and aluminum products to reduce automobile weight, and reduce GHG emissions during automobile use.

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 (In-house certification system to certify technologies, products, and services that contribute to CO2 emissions reductions.)

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

Comment

Through our own technologies, products, and services, we contribute to reducing CO2 emissions in various social areas. For technologies, products, and services that contribute to CO2 emissions reductions, we established an in-house certification system to certify the amount of CO2 emissions reductions that contribute to emissions reductions in fiscal 2019, and we are progressively promoting certification. The calculation formulas for certificated technologies, products and services are instructed by a third party.

Level of aggregation

Group of products

Description of product/Group of products

In the air-conditioning field, supply copper pipe products for high-efficiency heat exchangers and reduce GHG emissions during air-conditioning use.

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 (In-house certification system to certify technologies, products, and services that contribute to CO2 emissions reductions.)

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

Comment

Through our own technologies, products, and services, we contribute to reducing CO2 emissions in various social areas. For technologies, products, and services that contribute to CO2 emissions reductions, we established an in-house certification system to certify the amount of CO2 emissions reductions that contribute to emissions reductions in fiscal 2019, and we are progressively promoting certification. The calculation formulas for certificated technologies, products and services are instructed by a third party.

Level of aggregation

Group of products

Description of product/Group of products

In industrial machinery and construction machinery, we supply highly efficient heat pumps, compressors, and energy-saving construction machinery, etc. to reduce GHG emissions during use.

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 (In-house certification system to certify technologies, products, and services that contribute to CO2 emissions reductions.)

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

Comment

Through our own technologies, products, and services, we contribute to reducing CO2 emissions in various social areas. For technologies, products, and services that contribute to CO2 emissions reductions, we established an in-house certification system to certify the amount of CO2 emissions reductions that contribute to emissions reductions in fiscal 2019, and we are progressively promoting certification. The calculation formulas for certificated technologies, products and services are instructed by a third party.

Level of aggregation

Group of products

Description of product/Group of products

Reduce GHG emissions at steel plants by supplying MIDREX process plants that directly reduce iron ore with reformat gas from natural gas.

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 (In-house certification system to certify technologies, products, and services that contribute to CO2 emissions reductions.)

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

Comment

Through our own technologies, products, and services, we contribute to reducing CO2 emissions in various social areas. For technologies, products, and services that contribute to CO2 emissions reductions, we established an in-house certification system to certify the amount of CO2 emissions reductions that contribute to emissions reductions in fiscal 2019, and we are progressively promoting certification. The calculation formulas for certificated technologies, products and services are instructed by a third party.

Level of aggregation

Group of products

Description of product/Group of products

Reducing GHG emissions by using cement of blast furnace slag etc.

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 (In-house certification system to certify technologies, products, and services that contribute to CO2 emissions reductions.)

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

Comment

Through our own technologies, products, and services, we contribute to reducing CO2 emissions in various social areas. For technologies, products, and services that contribute to CO2 emissions reductions, we established an in-house certification system to certify the amount of CO2 emissions reductions that contribute to emissions reductions in fiscal 2019, and we are progressively promoting certification. The calculation formulas for certificated technologies, products and services are instructed by a third party.

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		Please select	
Coke oven: Coal moisture control process		Please select	
Coke oven: Programmed heating		Please select	
Sinter plant: Sinter cooler exhaust gas waste heat recovery		Please select	
Sinter plant: Sinter strand waste-gas recycling		Please select	
Sinter plant: Use of waste fuels in sinter mixture		Please select	
Blast furnace: Injection of pulverized coal, biomass or wastes		Please select	
Blast furnace: Top recovery turbine		Please select	
Blast furnace: Recuperator (air preheating) hot-blast stoves		Please select	
Blast furnace: Computer aided control system for hot-blast stoves		Please select	
Blast furnace: Slag granulation for cement industry		Please select	
Basic oxygen furnace: BOF gas and sensible heat recovery		Please select	
Basic oxygen furnace: Vessel bottom stirring		Please select	
Basic oxygen furnace: Programmed and preheated ladles		Please select	
Electric arc furnace: Scrap preheating		Please select	
Electric arc furnace: Oxy-fuel burners		Please select	
Electric arc furnace: Oxygen blowing for liquid steel oxidation or post combustion		Please select	
Electric arc furnace: Integrated, real-time process control and monitoring systems		Please select	
Casting: Absence of soaking pits and primary rolling of ingots		Please select	
Casting: Near net shape casting, e.g. thin slab, thin strip, etc.		Please select	
Hot rolling mill: Hot charging		Please select	
Hot rolling mill: Recuperative/regenerative burners		Please select	
Hot rolling mill: Walking beam furnace		Please select	
Hot rolling mill: Variable speed drives on combustion air fans of reheat furnace		Please select	
Integrated steel mill: Combined heat and power/cogeneration plant		Please select	
Integrated steel mill: Energy monitoring and management system		Please select	
Other		Please select	

C5. Emissions methodology

C5.1

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

Scope 1

Base year start

April 1 2017

Base year end

March 31 2018

Base year emissions (metric tons CO2e)

17712357

Comment

Scope 2 (location-based)

Base year start

April 1 2017

Base year end

March 31 2018

Base year emissions (metric tons CO2e)

973901

Comment

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.

Other, please specify (KEIDANREN's Commitment to a Low Carbon Society)

C5.2a

(C5.2a) Provide details of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.

Emissions from each business establishment were calculated using the calculation method of KEIDANREN's Commitment to a Low Carbon Society

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)

16368442

Start date

April 1 2018

End date

March 31 2019

Comment

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 operations where we are able to access electricity supplier emission factors or residual emissions factors, but are unable to report a Scope 2, market-based figure

Comment

The emission factors of the "KEIDANREN's Commitment to a Low Carbon Society" are used for all facilities.

C6.3

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

Reporting year

Scope 2, location-based

1047329

Scope 2, market-based (if applicable)

<Not Applicable>

Start date

April 1 2018

End date

March 31 2019

Comment

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?

Yes

C6.4a

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

Source

Headquarters, Branch offices

Relevance of Scope 1 emissions from this source

Emissions are relevant and calculated, but not disclosed

Relevance of location-based Scope 2 emissions from this source

Emissions are relevant and calculated, but not disclosed

Relevance of market-based Scope 2 emissions from this source (if applicable)

Please select

Explain why this source is excluded

Scope 1 and Scope 2 emissions are calculated, but emissions from headquarters, branch offices are very small for us (estimated to be less than 0.01%). Therefore, we believe that these emissions are not important to our company.

Source

Small production facilities

Relevance of Scope 1 emissions from this source

Emissions are relevant and calculated, but not disclosed

Relevance of location-based Scope 2 emissions from this source

Emissions are relevant and calculated, but not disclosed

Relevance of market-based Scope 2 emissions from this source (if applicable)

Please select

Explain why this source is excluded

Although scope 1 and scope 2 emissions from them are grasped, emissions from these facilities are very small for us (estimated to be less than 1%).

C6.5

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

Purchased goods and services

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

Capital goods

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

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

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

Upstream transportation and distribution

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

Waste generated in operations

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

Business travel

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

Employee commuting

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

When we are leasing and operating, we have already included the emissions of our Scope 1 and Scope 2.

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

200820

Emissions calculation methodology

Methods in accordance with the Act on the Rational Use of Energy of Japan

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

0

Explanation

Notification to the Japanese government have been made regarding the scope of emissions that fall under the Act on the Rational Use of Energy in Japan, and CO2 emissions within that scope have been calculated.

Processing of sold products

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

Use of sold products

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

End of life treatment of sold products

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

Downstream leased assets

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

Franchises

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

There is no franchise in our group.

Investments

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

Other (upstream)

Evaluation status

Please select

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

Other (downstream)

Evaluation status

Please select

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Explanation

C6.7

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

No

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

0.00000883

Metric numerator (Gross global combined Scope 1 and 2 emissions)

17415771

Metric denominator

unit total revenue

Metric denominator: Unit total

1971869000000

Scope 2 figure used

Location-based

% change from previous year

11.09

Direction of change

Decreased

Reason for change

As a result of consolidating the upstream processes owned by Kobe Works at Kakogawa Works, total CO2 emissions decreased. On the other hand, as sales of 2018 rose from 2017, the intensity per revenue was decreased.

Intensity figure

2.33

Metric numerator (Gross global combined Scope 1 and 2 emissions)

17415771

Metric denominator

metric ton of product

Metric denominator: Unit total

7478000

Scope 2 figure used

Location-based

% change from previous year

0.5

Direction of change

Increased

Reason for change

As a result of consolidating the upstream processes owned by Kobe Works at Kakogawa Works, total CO2 emissions decreased. On the other hand, the production volume also decreased, so there was no change in the intensity per production volume.

C-ST6.14

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

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	16368442	Other, please specify (KEIDANREN's Commitment to a Low Carbon Society)
Please select		Please select

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Japan	16294894
Other, please specify (The United States of America, China, Thailand and Malaysia)	73548

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

C7.3a

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

Business division	Scope 1 emissions (metric ton CO2e)
Iron&Steel	15708874
Aluminum & Copper	285745
Welding	15387
Machinery	4879
Others	353557

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 generation activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	15708874	<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/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
Japan	921141			
Other, please specify (China,Tailand and others)	126188			

C7.6

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

By business division

C7.6a

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

Business division	Scope 2, location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Iron&Steel	534286	
Aluminum & Copper	390189	
Welding	45040	
Machenary	22299	
Others	55515	

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
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	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	534286		
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?

Decreased

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 CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption		<Not Applicable>		
Other emissions reduction activities	25778	Decreased	0.15	The amount of CO2 reduction that has been completed among C4. 3a reduction activities, is described. The sum of the CO2 reductions for the respective completed reduction activities is calculated.
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output		<Not Applicable>		
Change in methodology		<Not Applicable>		
Change in boundary		<Not Applicable>		
Change in physical operating conditions	1244709	Decreased	7.15	The total reduction was calculated by subtracting the CO2 reduction amount for the completed reduction activities of C4. 3a from the total reduction amount.
Unidentified		<Not Applicable>		
Other		<Not Applicable>		

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?

Location-based

C8. Energy

C8.1

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

More than 10% but less than or equal to 15%

C8.2

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

	Indicate whether your organization undertakes this energy-related activity
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
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 MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0		
Consumption of purchased or acquired electricity	<Not Applicable>	0		
Consumption of purchased or acquired heat	<Not Applicable>	0		
Consumption of purchased or acquired steam	<Not Applicable>	0		
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	0	<Not Applicable>	
Total energy consumption	<Not Applicable>	0	55833000	55833000

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)	LHV (lower heating value)	
Consumption of purchased or acquired electricity	<Not Applicable>	
Consumption of purchased or acquired heat	<Not Applicable>	
Consumption of purchased or acquired steam	<Not Applicable>	
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	0
Total energy consumption	<Not Applicable>	51478000

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	Yes
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.

C8.2e

(C8.2e) 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	4420000	4420000	0	0
Heat				
Steam				
Cooling				

C-ST8.2e

(C-ST8.2e) Provide details on the electricity, heat, steam, and cooling 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	4420000	4420000
Heat		
Steam		

C8.2f

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

Basis for applying a low-carbon emission factor

No purchases or generation of low-carbon electricity, heat, steam or cooling accounted with a low-carbon emission factor

Low-carbon technology type

<Not Applicable>

Region of consumption of low-carbon electricity, heat, steam or cooling

<Not Applicable>

MWh consumed associated with low-carbon electricity, heat, steam or cooling

<Not Applicable>

Emission factor (in units of metric tons CO₂e per MWh)

<Not Applicable>

Comment

C-ST8.3

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

Feedstocks

Other, please specify (Coking coal, coke)

Total consumption

5650000

Total consumption unit

metric tons

Dry or wet basis?

Wet basis

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

Heating value of feedstock, MWh per consumption unit

Heating value

LHV

Comment

C9. Additional metrics

C9.1

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

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					
Electric arc furnace					
Other					
Total					

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
---------	--------------------------	------------------------	---------

C-ST9.6

(C-ST9.6) Disclose your organization's low carbon investments for steel production activities.

Investment start date

September 1 2018

Investment end date

January 31 2019

Investment area

Property, plant and equipment

Technology area

Efficiency/recovery equipment on existing process plant

Investment maturity

Large scale commercial deployment

Investment figure

164400000

Low-carbon investment percentage

81 - 100%

Please explain

Low carbon investments such as enhancement of heat insulation material were carried out.

C10. Verification

C10.1

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

	Verification/assurance status
Scope 1	No third-party verification or assurance
Scope 2 (location-based or market-based)	No third-party verification or assurance
Scope 3	No third-party verification or assurance

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, but we are actively considering verifying within the next two years

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, and we do not anticipate being regulated in the next three years

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?

Yes, our customers

Yes, other partners in the value chain

C12.1b

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

Type of engagement

Collaboration & innovation

Details of engagement

Other – please provide information in column 5

% of customers by number

% Scope 3 emissions as reported in C6.5

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

i) Taking advantage of our applicable technological capabilities, we will conduct various collaborations such as joint venture projects, technology provision, and joint development depending on the project. ii) After the business unit considers the business benefits and feasibility, the business unit determines the priority. In addition, the business unit evaluates the results against the original plan. iii) Result; as a joint project, a metropolitan biogas system was installed. We also participated in the demonstration test of the government's renewable energy hydrogen station.

Impact of engagement, including measures of success

C12.1c

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

i) We will do various collaborations according to our applicable technology and projects such as joint venture project, technology provision, joint development etc.

ii) After Business unit considers the advantages and feasibility of the business, business unit decide priorities. In addition, business unit evaluates the result comparing with the original plan.

iii) As a result, we set up a central urban biogas system as a joint project. We also participated in the demonstration test of the government's renewable energy hydrogen station.

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

The Japan Iron and Steel Federation

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Target: The Japan Iron and Steel Federation(JISF) has set a following target. "The target is a CO2 emission reduction of 5 million tons by FY2020 vs. expected emissions for each production volume (BAU) by fully implementing state-of-the-art technologies. Of this reduction, JISF prioritizes 3 million tons of reduction arising from energy conservation and other voluntary actions by steelmakers. For waste plastics and other recycled materials, the emission reduction includes only a decrease resulting from the increase in the volume of these materials collected vs. the FY2005 level." Activity: They have submitted voluntary environmental action plan to the Japan Ministry of Economy, Trade and Industry through KEIDANREN(Japan Business Federation).

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

- Attendance of the committee • Target setting, results and summary follow-up, information sharing • Participation in opinion exchange meetings with government officials organized by industry organization
-

Trade association

Japan Copper and Brass Association

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Targets: FY2020 is set as the target year. The target is to reduce the energy consumption intensity by 4% (target is against BAU). Activity: They have submitted voluntary environmental action plan to the Japan Ministry of Economy, Trade and Industry through KEIDANREN(Japan Business Federation).

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

- Attendance of the committee • Target setting, results and summary follow-up, information sharing • Participation in opinion exchange meetings with government officials organized by industry organization
-

Trade association

Japan Aluminium Association

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Target: FY2020 is set as the target year. The target is to reduce energy consumption per unit of rolling by 1.0 0GJ/t (target is against BAU, base year 2005). Activity: They have submitted voluntary environmental action plan to the Japan Ministry of Economy, Trade and Industry through KEIDANREN(Japan Business Federation).

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

- Attendance of the committee • Target setting, results and summary follow-up, information sharing • Participation in opinion exchange meetings with government officials organized by industry organization
-

Trade association

Japan Society of Industrial Machinery Manufacturers

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Target: FY2020 is set as the target year. The target is to reduce the energy consumption per sales unit by 1% or more on an annual average. Activities: They have submitted voluntary environmental action plan to the Japan Ministry of Economy, Trade and Industry through KEIDANREN(Japan Business Federation).

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

- Attendance of the committee • Target setting, results and summary follow-up, information sharing
-

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?

The targets of each business unit are consistent with the goals of each industry organization. Since the accumulation of targets for each business unit is our target, the target of each industry organization is consistent with our target.

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 communications

Status

Underway – previous year attached

Attach the document

Supplementary Material for Integrated Report 2018_CO2 Emissions and Initiatives to Reduce CO2.pdf
integrated-reports2018-en.pdf

Supplementary Material for Integrated Report 2018_Estimated GHG Emissions Excluding CO2 from Energy Use (Kobe Steel).pdf

Page/Section reference

1. "integrated-reports2018-en.pdf" : Strategy pg36,37, Governance pg91, CO2 emissions pg57, 94 2. "Supplementary Material for Integrated Report 2018_CO2 Emissions and Initiatives to Reduce CO2.pdf": CO2 emission pg1,2,3 3. "Supplementary Material for Integrated Report 2018_Estimated GHG Emissions Excluding CO2 from Energy Use (Kobe Steel).pdf": GHG Emissions pg1

Content elements

Governance

Strategy

Emissions figures

Comment

C14. 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.

C14.1

(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Chief officer responsible for companywide environmental management (Senior Managing Executive Officer)	Other C-Suite Officer