

C0. Introduction

C0.1

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

Chubu Electric Power Company, Incorporated, was established in 1951 to supply electricity to the Chubu area. Chubu's main business is the generation, transmission, distribution and sale of power. Total power generation by its facilities is 34,585 MW (nuclear, 3,617 MW; thermal, 25,470 MW; hydro, 5,458 MW; renewable energy, 38 MW), and the lengths of its transmission and distribution lines are 12,200 km and 134,297 km, respectively. Electricity sales of Chubu Group in FY2017 were 125.3 TWh, and this was the second highest in Japan. The 59 companies in Chubu Group are mainly in the energy business, which includes construction to expand and maintain facilities and manufacturing to supply equipment, etc. In response to the start of full liberalization of the retail markets for electricity and gas (in 2016 and 2017), Chubu is making efforts to expand its business area into areas such as Tokyo. In 2016, a power generation company (JERA, already spun off), power network company (to be spun off) and customer service and sales company (to be spun off) were formed to build an autonomous business structure that will enable swift and flexible response under such business circumstances.

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 2017	March 31 2018	Yes	3 years
Row 2	April 1 2016	March 31 2017	<Not Applicable>	<Not Applicable>
Row 3	April 1 2015	March 31 2016	<Not Applicable>	<Not Applicable>
Row 4	April 1 2014	March 31 2015	<Not Applicable>	<Not Applicable>

C0.3

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

Japan

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-EU0.7

(C-EU0.7) Which part of the electric utilities value chain does your organization operate in? Select all that apply.

Row 1

Electric utilities value chain

- Electricity generation
- Transmission
- Distribution

Other divisions

- Gas storage, transmission and distribution
- Smart grids / demand response

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) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Board/Executive board	The Senior Executive Committee, which consists of the President, Executive Vice Presidents, Company Presidents, General Managers and other executive officers, deliberates the main business management plans including climate issues, and the Board of Directors makes decisions.
Director on board	The Environmental Measures Support Council chaired by the Vice President engaged in climate issues deliberates environment policy, action objectives, and concrete measures.
President	A Risk Management Meeting was established in April 2018 to create a structure for integrated management of risk that would have a material effect on the company's management. In the meeting, risk-coping policies are deliberated and incorporated into business plans, etc., that are decided on by the Board of Directors.

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 Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues	The Senior Executive Committee, which consists of the President, Executive Vice Presidents, Company Presidents, General Managers and other executive officers, deliberates the main business management plans evaluating risks to climate and measures for climate-related regulation by sector (sales, power network, thermal energy, renewable energy, nuclear energy and new business), each year. The Board of Directors makes decisions regarding the plans.
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Setting performance objectives Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues	The Environmental Measures Support Council chaired by a Vice President deliberates to set or revise the environmental policy objectives, action objectives, and concrete measures. An annual report evaluating the outcomes of measures on climate change taken by each company and office/division engaged in these action objectives is reported to the Senior Executive Committee, which consists of the President, Executive Vice Presidents, Company Presidents, General Managers and other executive officers.
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding business plans	Risks are categorized and evaluated based on impact and likelihood. Risks that have potentially high financial impacts are deliberated in the Risk Management Meeting, and risk-coping policies are incorporated into business plans, etc., that are decided on by the Board of Directors.

C1.2

(C1.2) Below board-level, provide the highest-level management 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)	Both assessing and managing climate-related risks and opportunities	Annually
Other, please specify (Environmental Measures Support Council)	Both assessing and managing climate-related risks and opportunities	As important matters arise
President	Both assessing and managing climate-related risks and opportunities	Annually

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.

In the first stage, a meeting consisting of managers in each company and office/division deliberates the comprehensive demand and supply plan evaluating risks to climate, and measures for climate-related regulation by sector (sales, thermal energy, renewable energy, nuclear energy and new business), each year. In the second stage, a committee consisting of General Managers deliberates the plan. The Senior Executive Committee, which consists of the President, Executive Vice Presidents, Company Presidents, General Managers and other executive officers, then deliberates it, and the Board of Directors makes a decision regarding the plan. The Environmental Measures Support Council chaired by a Vice President deliberates to set or revise the environmental policy objectives, action objectives, and concrete measures. If they are important matters, the Senior Executive Committee (consisting of the President, Executive Vice Presidents, Company Presidents, General Managers and other executive officers) or Management Strategy Committee (consisting of Representative Directors and other officers) deliberate them. An annual report evaluating the outcomes of measures for climate change taken by each company and office/division engaged in these action objectives is reported to the Senior Executive Committee. Each company and office/division engaged in these action objectives categorizes risks and evaluates the impact and likelihood. They report them to the Risk Management Department and consider risk-coping policies, etc. Risks that have potentially high financial impacts are deliberated on in the Risk Management Meeting, and risk-coping policies are incorporated into business plans, etc., that are decided on by the Board of Directors.

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.

Who is entitled to benefit from these incentives?

All employees

Types of incentives

Monetary reward

Activity incentivized

Other, please specify (Obtaining a qualification)

Comment

Examination fees for energy management qualifications authorized by the government are supported and 10,000 JPY is paid for obtaining such qualifications.

Who is entitled to benefit from these incentives?

All employees

Types of incentives

Monetary reward

Activity incentivized

Other, please specify (Reward for innovation)

Comment

Employees who successfully develop innovative technologies related to energy efficiency, reducing CO2 emissions, etc., are recognized and rewarded.

Who is entitled to benefit from these incentives?

All employees

Types of incentives

Recognition (non-monetary)

Activity incentivized

Behavior change related indicator

Comment

Employees in Chubu Group companies receive points for rational use of energy, purchasing eco-friendly goods and services, etc., and those who receive large numbers of points are recognized. These points are contributed to NPOs, etc., that work on environmental issues such as preserving ecosystems. This activity started in 2006.

Who is entitled to benefit from these incentives?

All employees

Types of incentives

Recognition (non-monetary)

Activity incentivized

Emissions reduction target

Comment

Chubu Group's power generation company (JERA) has two targets to achieve by FY2030: index A, which is thermal power generation efficiency of 1.00 or more (targets for power generation efficiency: 41% for coal, 48% for LNG, and 39.0% for oil), and index B, which is thermal power generation efficiency of 44.3% or more (calculated by the actual efficiency of each energy source weighted by its generated kWh). Both indexes are based on at the power generation end, HHV, on the Act on the Rational Use of Energy (Act No. 49). 1% reduction for energy consumption for transportation in all sectors.

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	0	1	Main business plans and other kinds of plans are decided annually based on the comprehensive demand and supply plan, etc. which consists of demand, sales, procurement and power plant development plans.
Medium-term	1	5	As a medium-term business plan to realize Chubu Group's Management Vision, "Initiatives to Address Management Challenges" are decided annually. It includes measures for four priority areas (1, improving safety further at Hamaoka Nuclear Power Plant; 2, stable power supply for a new age; 3, strengthening our business base for growth and achieving sustainable growth; and 4, establishing a business structure/management base than can respond instantly to environmental changes) and concrete measures are implemented.
Long-term	5	10	In March 2018, Our Management Vision for the second half of the 2020s was decided. It expresses our intentions with respect to our energy business, technological innovations (from the 4th Industrial Revolution perspective) and new growth fields (from the core competence perspective, quantitative vision and business scale. An Electricity Supply Plan for the next 10 years is prepared annually.

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.

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

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	Six-monthly or more frequently	>6 years	The Risk Management Department identifies and evaluates the risks for several ten years comprehensively each year. Risks that have potentially high financial impacts are deliberated in the Risk Management Meeting, and risk-coping policies are incorporated into business plans, etc., that are decided on by the Board of Directors.

C2.2b

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

Each company and office/division engaged in these action objectives categorizes risks and evaluates their magnitudes of impact and likelihood. They report them to the Risk Management Department and consider risk-coping policies, etc. Risks that have potentially high financial impacts are deliberated in the Risk Management Meeting, and risk-coping policies are incorporated into business plans, etc., that are decided on by the Board of Directors.

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, always included	The customer service & sales company has a target – a ratio of energy generated from non-fossil energy sources of 44% or more of all the electricity they sell by FY2030 based on the Act on Promotion of Use of Non-fossil Energy Sources and Effective Use of Fossil Energy Materials by Energy Suppliers (2009, Act No. 72).
Emerging regulation	Relevant, always included	New carbon tax, increase the present carbon tax, introduce cap and trade, the new national energy mix and the CO2 reduction target consistent with the long-term low greenhouse gas emission development strategies.
Technology	Relevant, always included	Enhancing transmission/distribution network copying with the rise of introducing renewable energy. CCS has a lot of issues on costs, regulations, etc. at present, but if these issues are resolved and CCS is commercialized, we may have to consider organizing it in our power plants.
Legal	Relevant, always included	In case of the situations that are breaching the government's regulations.
Market	Relevant, always included	Rational use of energy consumption by customers and increasing demand for electricity with low emissions.
Reputation	Relevant, always included	Reputation risk in case measures against climate change are not sufficient.
Acute physical	Relevant, always included	Coping with natural disaster, such as typhoons.
Chronic physical	Not relevant, explanation provided	Chronic physical risks to our business are not found especially.
Upstream	Relevant, not included	Acute physical risks by natural disasters, such as typhoons, in mining and transporting natural resources can be considered but are not assessed.
Downstream	Not relevant, explanation provided	Risks in downstream to our business are not found especially.

C2.2d

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

Each company and office/division engaged in these action objectives categorizes risks and evaluates their magnitudes of impact and likelihood. They report them to the Risk Management Department and consider risk-coping policies, etc. Risks that have potentially high financial impacts are deliberated in the Risk Management Meeting, and risk-coping policies are incorporated into business plans, etc., that are decided on by the Board of Directors. Concerning risks to natural disasters such as typhoons, the power network company, etc. identify and evaluate the impacts on management. For example, regarding material risks such as typhoons, damage is evaluated on the basis of it being occasional, a plan is deliberated for renovating facilities, and guidelines are made for accidents. The impact on revenues is estimated, and measures are considered on the assumption that environmental regulations will be strengthened. Opportunities are considered and included in each company and office/division's business plan, etc. and some of them are described in the annual report and web-side, etc. each year.

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: Increased pricing of GHG emissions

Type of financial impact driver

Policy and legal: Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

Company- specific description

The government would consider carbon pricing this year and could be introduced for achieving the NDC.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Medium

Potential financial impact

Explanation of financial impact

Management method

A voluntary framework for power sectors in which major electric power companies, including Chubu, participate and the industry's Action Plan toward a Low-carbon Society were announced in July 2015. The plan aims to achieve an emission factor of about 0.37 kg-CO₂/kWh, which is consistent with the national energy mix and the NDC. The Electric Power Council for a Low Carbon Society (ELCS) was launched in February 2016, and Chubu has been a member of ELCS from the beginning. ELCS presides over individual reduction plans and has announced mechanisms and rules for the entire industry to implement PDCA. Development renewable energy, efficient thermal power plant etc. Nishi-Nagoya Thermal Power Station Unit No. 7 (2,376 MW) started operation in 2018, and the efficiency of plant 7-1 was rated the highest in the world (63.08; LHV) and recognized as the most efficient combined cycle power plant in the world by Guinness in May 2018. This unit can reduce CO₂ emissions by 1.4 million tons per year. Many kinds of suggestions are submitted to the government through the Federation of Electric Power Companies of Japan (FEPC) and KEIDANREN.

Cost of management

0

Comment

Measures are considered in the process for identifying and evaluating risks that is answered in C2.2b.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Transition risk

Primary climate-related risk driver

Technology: Costs to transition to lower emissions technology

Type of financial impact driver

Technology: Costs to adopt/deploy new practices and processes

Company- specific description

Costs for measures on network against introducing renewable energy by FIT.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium-low

Potential financial impact

16600000000

Explanation of financial impact

Operating expenses in Chubu (not consolidated) increase approx. 0.2%.

Management method

Generation from renewable energy is increasing rapidly by introducing FIT. The quality of electricity is maintained by enhancing network facilities and by replacement of the present facilities, etc.

Cost of management

16600000000

Comment

Measures are considered in the process for identifying and evaluating risks that is answered in C2.2b. Costs for coping with introducing renewable energy by FIT, which are for maintaining the quality of electricity by enhancing network facilities and by replacement of the present facilities, etc. The total costs 16.6billion JPY are evaluated based on the estimate for the next 3 years.

Identifier

Risk 3

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 driver

Reduced revenue from decreased production capacity (e.g., transport difficulties, supply chain interruptions)

Company- specific description

Damages on transmission and distribution network caused by a typhoon, tidal wave flood, etc.

Time horizon

Long-term

Likelihood

About as likely as not

Magnitude of impact

Low

Potential financial impact

600000000

Explanation of financial impact

Operating expenses in Chubu (not consolidated) increases approx. 0.02%.

Management method

Efforts are made to build facilities that are resilient against natural disasters. Institutional structures are organized to address situations quickly and appropriately. When a natural disaster occurs or is predicted to occur, the situation is announced as an emergency, command posts are organized, and the situation is addressed within each plant and office. Practical training is implemented for such things as natural disaster prevention and resumption of operation of facilities repeatedly in cooperation with related institutions so that every employees can address these situations quickly and appropriately and resume operation of facilities.

Cost of management

0

Comment

Costs to resume operation of distribution networks, damaged by typhoons, tidal wave floods, etc., are evaluated based on the most severe damage in the last 5 years. These costs exclude costs for human resources.

C2.4

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

Yes

C2.4a

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

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of more efficient production and distribution processes

Type of financial impact driver

Reduced operating costs (e.g., through efficiency gains and cost reductions)

Company- specific description

Development efficient thermal power plant. Nishi-Nagoya Thermal Power Station Unit No. 7 (2,376 MW) started operation in 2018, and the efficiency of plant 7-1 was rated the highest in the world (63.08; LHV).

Time horizon

Current

Likelihood

Virtually certain

Magnitude of impact

Medium

Potential financial impact

13700000000

Explanation of financial impact

Operating expenses in Chubu (not consolidated) decrease approx. 0.6%.

Strategy to realize opportunity

Not only expenses for fuel but also CO2 emissions are reduced by introducing high efficient thermal power. Nishi-Nagoya Thermal Power Station Unit No. 7 (2,376 MW) started operation in 2018, and the efficiency of plant 7-1 was rated the highest in the world (63.08; LHV). This unit can reduce CO2 emissions by 1.4 million tons per year.

Cost to realize opportunity**Comment**

The reduction of expenses for fuel can cover the increase of investment.

Identifier

Opp2

Where in the value chain does the opportunity occur?

Customer

Opportunity type

Products and services

Primary climate-related opportunity driver

Development of new products or services through R&D and innovation

Type of financial impact driver

Increased revenue through demand for lower emissions products and services

Company- specific description

Provide knowhow building and operating energy infrastructure, install IoT and ICT devices, etc. Propose rational use of energy and CO2 reduction based on optimal use of energy that leverage technical capabilities, proposal capabilities and relationships of trust with customers.

Time horizon

Long-term

Likelihood

More likely than not

Magnitude of impact

High

Potential financial impact

30000000000

Explanation of financial impact

Approx. 10% of consolidated ordinary income in the second half of 2020s.

Strategy to realize opportunity

Combining two approaches (services to raise the quality of life of individuals by using various data and community services based on connecting and evolving several kinds of social infrastructure) in various ways and establish new growth fields.

Cost to realize opportunity

Comment

New growth field in Management Vision in 2018.

Identifier

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of lower-emission sources of energy

Type of financial impact driver

Returns on investment in low-emission technology

Company- specific description

Develop 3GW renewable energy overseas.

Time horizon

Long-term

Likelihood

More likely than not

Magnitude of impact

High

Potential financial impact

Explanation of financial impact

Increase revenues to the same ratio as energy business in the second half of 2020s'.

Strategy to realize opportunity

Develop 3GW renewable energy overseas by one of consolidated subsidiaries and affiliates companies (JERA).

Cost to realize opportunity**Comment**

Based on the press release by JERA on 27 March 2018 and Management Vision in 2018.

Identifier

Opp4

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of lower-emission sources of energy

Type of financial impact driver

Reduced operational costs (e.g., through use of lowest cost abatement)

Company- specific description

Decrease of fossil fuel consumption by developing solar and hydro energy domestically by Chubu Group.

Time horizon

Long-term

Likelihood

Very likely

Magnitude of impact

Low

Potential financial impact

500000000

Explanation of financial impact

Operating expenses in Chubu (not consolidated) decrease approx.0.02%.

Strategy to realize opportunity

Develop 121MW solar energy and 13MW small hydro energy.

Cost to realize opportunity**Comment**

Estimated the reduced consumption of fuel based on the rate of operation, etc. by using the figures in the committee for calculating power generation costs (in May 2015).

Identifier

Opp5

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Type of financial impact driver

Increased revenue through demand for lower emissions products and services

Company- specific description

Estimated the economic value for over achievement of index B, which is thermal power generation efficiency of 44.3% or more (calculated by the actual efficiency of each energy source weighted by its generated kWh). The index is based on the Act on the Rational Use of Energy (Act No. 49).

Time horizon

Medium-term

Likelihood

More likely than not

Magnitude of impact

Medium

Potential financial impact

15500000000

Explanation of financial impact

Operating revenues in Chubu (not consolidated) increase approx. 0.6%

Strategy to realize opportunity

Enhance efficiency by replacement of gas turbines and keep high operation rate of the more efficient thermal energy.

Cost to realize opportunity**Comment**

Estimated economic value for providing Chubu's efficiency to other companies that achieve index B by buying others' efficiency.

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

	Impact	Description
Products and services	Impacted	Considering the need for supplying low carbon electricity, the comprehensive demand and supply plan included the measures for enhancing energy efficiency because Chubu Group's power generation company (JERA) has two targets to achieve by FY2030: index A, which is thermal power generation efficiency of 1.00 or more (targets for power generation efficiency: 41% for coal, 48% for LNG, and 39.0% for oil), and index B, which is thermal power generation efficiency of 44.3% or more (calculated by the actual efficiency of each energy source weighted by its generated kWh). Both indexes are based on at the power generation end, HHV, on the Act on the Rational Use of Energy (Act No. 49). The plan also included the measures to enhance the ratio of energy generated from non-fossil energy sources because the customer service & sales company has a target - 44% or more of all the electricity they sell by FY2030 based on the Act on Promotion of Use of Non-fossil Energy Sources and Effective Use of Fossil Energy Materials by Energy Suppliers (2009, Act No. 72). Proposal of new business fields concerning rational use of energy and reduction of CO2 emissions based on optimal use of energy that leverage technical capabilities, proposal capabilities and relationships of trust with customers, etc., corresponding to changing social structures, changing technical situations and environmental awareness are addressed in our Management Vision, which includes a target of 30 billion JPY per year.
Supply chain and/or value chain	Not yet impacted	The best equipment and devices are chosen by evaluating them in view of not only quality and cost but also environmental aspects through our procurement process.
Adaptation and mitigation activities	Impacted	Impact by natural disasters caused by climate change is evaluated as 0.6 billion JPY that is the largest last five years. 0.6 billion JPY are evaluated as costs to resume operation of distribution networks, damaged by typhoons, tidal wave floods, etc. based on the most severe damage in the last 5 years. Decided to contribute to ELCS's target to achieve an emission factor of approx. 0.37 kg-CO2/kWh, which is consistent with the national energy mix and the NDC. Considered diversifying utilities against natural disasters. The main business management plans include the assumption of decreased demand due to rational use of energy and strengthening regulations on thermal energy, renewable energy development utilizing internal and external resources of the Chubu Group and adjustment of network facilities to correspond to decrease of utilization caused by increased utilization of renewable energy (7.4billion JPY).
Investment in R&D	Impacted	Climate change is one of fields for R&D and develop technologies to contribute to emission reductions. Stabilizing network against introducing renewable energy is also an important subject and engaged.
Operations	Impacted	Measures against introducing more renewable energy, such as "Connect and Manage" (a system that makes maximal use of existing transmission network and allows the connection of renewable energy, etc.). Enhance accuracy of estimation of unstable renewable energy and operate distribution network in most efficient way by using IoT, etc.
Other, please specify	Please select	

C2.6

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

	Relevance	Description
Revenues	Impacted	The new business field addressed Management Vision for the second half of 2020s that has a target for 30 billion JPY per year, concerning the rational use of energy and CO2 reduction proposal based on optimal use of energy. Provide knowhow building and operating energy infrastructure, install IoT and ICT devices, etc. Propose rational use of energy and CO2 reduction based on optimal use of energy that leverage technical capabilities, proposal capabilities and relationships of trust with customers. Energy consulting for customers is contributing satisfaction and electricity sales.
Operating costs	Impacted	Implement of the high efficient thermal plants (Nishi- Nagoya Thermal Power Station, 2,376MW) contributed to reduction of fuel cost by 13.7billion JPY. Investment for measures on network against introducing renewable energy by FIT – 7.4billion JPY is included.
Capital expenditures / capital allocation	Impacted	Planning of development renewable energy domestically and overseas for 10 years.
Acquisitions and divestments	Not impacted	As one of options, M&A and alliances with the company whose ratio of non-fossil energy source is high.
Access to capital	Not yet impacted	Divestment against some Japanese company whose ratio of coal is high.
Assets	Not yet impacted	Impact has not appeared yet for coping with the NDC, but the long-term low greenhouse gas emission development strategy will be decided next year and this could impact on the assets.
Liabilities	Not yet impacted	Impact has not appeared yet for coping with the NDC, but the long-term low greenhouse gas emission development strategy will be decided next year and this could impact on the liabilities.
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?

Yes, qualitative and quantitative

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.

Yes

C3.1c

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

The Japan's NDC is at the level of a reduction of 26.0% by FY2030 compared to FY 2013 (25.4% reduction compared to FY 2005), ensuring consistency with its energy mix (renewable 22-24%, nuclear 20-22%, LNG 27%, coal 26%, oil 3%). In Japan, the retail electricity market has been already fully liberalized, and new competitors are engaging in this business. The members of FEPC cannot cover the entire market anymore, and ELCS was launched in February 2016. ELCS has determined action plans and targets to achieve the NDC. It covered 98% of the total retail sales of electricity in Japan in March 2017. Its targets are an emission factor of approx. 0.37 kg-CO2/kWh and an essential reduction of maximum emission by 11 million ton-CO2 by use of best-available technologies in thermal power plants. Chubu has been a member of ELCS from the beginning and is taking steps to develop highly efficient thermal and renewable energy, etc. In making decisions regarding these business plans, risks to investments and costs are evaluated by using internal carbon pricing that corresponds to the IEA's Sustainable Development Scenario. Tokuyama hydro (161.9 MW) started operation in 2016 and Shin-Okuzumi hydro (0.32MW) started operation in 2018. Nishi- Nagoya Thermal Power Station Unit No. 7 (2,376MW) started operation in 2018 and the plant 7-1 performed the highest efficiency 63.08 (LHV) in the world.

C3.1d

(C3.1d) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenarios	Details
IEA Sustainable development scenario	The Japanese government has a target for 2050 (-80%, no year to be compared), but a long-term low-emission development strategy has yet to be decided. The "Long-term Energy Supply and Demand Outlook" for FY2030 decided on in July 2018 refers to the design of the scenario for the strategy. The basic principle in creation of the Long-term Energy Supply and Demand Outlook was the "3E+S" (Energy Security, Economic Efficiency, Environment + Safety); this is also the basic principle of the NDC. Energy Security is considered to be especially important. Japan has few natural resources, no connection with the transmission lines of other countries and has to maintain a stable supply of electricity domestically. The prospects for the progress of technologies to achieve these 4 principles are difficult to determine at the present and to address flexibly. No concrete scenarios have been drawn up yet, and Chubu uses the IEA's Sustainable Development Scenario.
Nationally determined contributions (NDCs)	ELCS was launched in February 2016 and has determined targets and measures to achieve the NDC (26% reduction compared with FY2013). Its' targets are an emission factor of approx. 0.37 kg-CO2/kWh and an essential reduction of maximum emission by 11 million ton-CO by use of best-available technologies in thermal power plants. As a member of ELCS, Chubu is implementing measures to achieve these targets.

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

(C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e) Disclose details of your organization's low-carbon transition plan.

Chubu is implement measures against climate change as follows; Safety improvement measures for Hamaoka Nuclear (3,617MW) power plant The thermal power plant (Taketoyo Thermal Power, 1,070 MW) will use Approx. 17% (heating value ratio) of wood biomass. Develop 99 MW biomass, 121MW solar and 13MW small hydro as Chubu Group. Develop 3GW renewable energy overseas by one of consolidated subsidiaries and affiliates companies (JERA). Stabilizing and enhancing network against introducing large amount of renewable energy. Measures to achieve a target – the ratio of energy generated from non-fossil energy sources is 44% or more of all the electricity they sell by FY2030 based on the Act on Promotion of Use of Non-fossil Energy Sources and Effective Use of Fossil Energy Materials by Energy Suppliers (2009, Act No. 72). Chubu invested in Japan CCS Co., Ltd., and engages in R&D for CCS. Japan CCS Co., Ltd., has been implementing a large-scale demonstration project in Tomakomai aiming toward practical use of CCS by 2020, and Chubu addresses CCS by considering outcomes from the project and evaluations by the government, the situations for R&D, etc.

C4. Targets and performance

C4.1

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

Intensity target

C4.1b

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

Target reference number

Int 1

Scope

Scope 1

% emissions in Scope

100

% reduction from baseline year

35

Metric

Metric tons CO₂e per megawatt hour (MWh)*

Base year

2013

Start year

2015

Normalized baseline year emissions covered by target (metric tons CO₂e)

0.57

Target year

2030

Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

% achieved (emissions)

26

Target status

Underway

Please explain

ELCS has targets to achieve the NDC (26% reduction compared with FY2013). They are an emission factor of approx. 0.37 kg-CO₂/kWh and the companies that are the member of ELCS are implementing initiatives for contributing to achieve ELC's target.

% change anticipated in absolute Scope 1+2 emissions

0

% change anticipated in absolute Scope 3 emissions

0

C4.2

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

Target

Energy productivity

KPI – Metric numerator

Enhance of thermal energy efficiency.

KPI – Metric denominator (intensity targets only)

47%

Base year

2008

Start year

2009

Target year

2021

KPI in baseline year

46.08

KPI in target year

47

% achieved in reporting year

100

Target Status

Underway

Please explain

Achieved the most efficient level - 48.94% (LHV) by introducing high efficient thermal power plants (Nishi-Nagoya), maintaining efficiency of the existing plants and operating in the most efficient way.

Part of emissions target

c4.1b

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Target

Zero/low-carbon vehicle

KPI – Metric numerator

Introducing EV and PHV.

KPI – Metric denominator (intensity targets only)

Introducing 1,500 cars that are EV and PHV.

Base year

2008

Start year

2009

Target year

2021

KPI in baseline year

0

KPI in target year

1500

% achieved in reporting year

23

Target Status

Underway

Please explain

Introducing 1,500 cars that are EV and/or PHV in each company and office/division of Chubu.

Part of emissions target

No

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

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 projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	
To be implemented*	6	1100000
Implementation commenced*	0	0
Implemented*	2	1400600
Not to be implemented	0	

C4.3b

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

Activity type

Low-carbon energy installation

Description of activity

Natural Gas

Estimated annual CO2e savings (metric tonnes CO2e)

1400000

Scope

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)

13700000000

Investment required (unit currency – as specified in CC0.4)

Payback period

Please select

Estimated lifetime of the initiative

Please select

Comment

Nishi-Nagoya Thermal Power Station Unit No. 7 (2,376 MW) started operation in 2018, and the efficiency of plant 7-1 was rated the highest in the world (63.08; LHV). This unit can reduce CO2 emissions by 1.4 million tons per year.

Activity type

Low-carbon energy installation

Description of activity

Hydro

Estimated annual CO2e savings (metric tonnes CO2e)

600

Scope

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)

8000000

Investment required (unit currency – as specified in CC0.4)

Payback period

Please select

Estimated lifetime of the initiative

Please select

Comment

Shin-Okuzumi hydro (0.32MW) started operation in May 2018. It contributes to reduction of CO2 emissions by 600 tons per year and fuel cost by 8million JPY per year.

C4.3c

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

Method	Comment
Compliance with regulatory requirements/standards	Chubu Group's power generation company (JERA) has two targets to achieve by FY2030: index A, which is thermal power generation efficiency of 1.00 or more (targets for power generation efficiency: 41% for coal, 48% for LNG, and 39.0% for oil), and index B, which is thermal power generation efficiency of 44.3% or more (calculated by the actual efficiency of each energy source weighted by its generated kWh) . Both indexes are based on at the power generation end, HHV, on the Act on the Rational Use of Energy (Act No. 49). The customer service & sales company has a target – the ratio of energy generated from non-fossil energy sources is 44% or more of all the electricity they sell by FY2030 based on the Act on Promotion of Use of Non-fossil Energy Sources and Effective Use of Fossil Energy Materials by Energy Suppliers (2009, Act No. 72).
Dedicated budget for energy efficiency	Chubu Group's power generation company (JERA) has two targets to achieve by FY2030: index A, which is thermal power generation efficiency of 1.00 or more (targets for power generation efficiency: 41% for coal, 48% for LNG, and 39.0% for oil), and index B, which is thermal power generation efficiency of 44.3% or more (calculated by the actual efficiency of each energy source weighted by its generated kWh) . Both indexes are based on at the power generation end, HHV, on the Act on the Rational Use of Energy (Act No. 49). The customer service & sales company has a target – the ratio of energy generated from non-fossil energy sources is 44% or more of all the electricity they sell by FY2030 based on the Act on Promotion of Use of Non-fossil Energy Sources and Effective Use of Fossil Energy Materials by Energy Suppliers (2009, Act No. 72). For achieving these targets, budget is secured and drive investment for developing high efficient thermal power plants, replacing with more efficient gas turbines and repowering existing hydro power plants.
Dedicated budget for low-carbon product R&D	Budget is secured on climate change for improving efficiency, such as integrated development solutions that enhance quality and productivity while conserving energy.
Internal price on carbon	Evaluation of investments for development of renewable energy for achieving the intensity target of ELCS, a ratio of energy generated from non-fossil energy sources of 44% by using internal carbon prices to correspond to the 2 degrees C scenario (IEA's Sustainable Development Scenario).
Partnering with governments on technology development	Chubu invested in Japan CCS Co., Ltd., and is engaged in R&D for CCS. Japan CCS Co., Ltd., has been implementing a large-scale demonstration project in Tomakomai aiming toward practical use of CCS by 2020, and Chubu addresses CCS by considering outcomes from the project and evaluations by the government, the situations for R&D, etc. In cooperation with Toyota Motor Corporation, Toho gas co., Ltd, Aichi prefecture, etc., Chubu is participating the low carbon emission project that uses hydrogen. Also with Toyota, new verification aimed at establishing a high-capacity storage batteries for EVs will be started, that' purpose is to use the system in various distribution system issues caused by the introduction/expansion of renewable energy.

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

Company-wide

Description of product/Group of products

Consulting for customers' efficient energy use, for example investigating energy waste, and proposing reforms of the operation of facilities used and integrated development solutions that enhance quality and productivity while conserving energy, 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 (Compare companies' BAU emissions)

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

Comment

In addition to consulting for customers' efficient energy use, R&D for high efficient equipment and devices is implemented in cooperation with business customers. It enhances customers' satisfaction and contributes for electricity sales.

C-EU4.6

(C-EU4.6) Describe your organization's efforts to reduce methane emissions from your electricity generation activities.

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 2014

Base year end

March 31 2015

Base year emissions (metric tons CO2e)

59199780

Comment

Scope 2 (location-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 2 (market-based)

Base year start

April 1 2014

Base year end

March 31 2015

Base year emissions (metric tons CO2e)

75831

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.

Japan Ministry of the Environment, Law Concerning the Promotion of the Measures to Cope with Global Warming, Superseded by Revision of the Act on Promotion of Global Warming Countermeasures (2005 Amendment)

C6. Emissions data

C6.1

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

Row 1

Gross global Scope 1 emissions (metric tons CO2e)

56398804

End-year of reporting period

<Not Applicable>

Comment

Row 2

Gross global Scope 1 emissions (metric tons CO2e)

57977441

End-year of reporting period

2017

Comment

Row 3

Gross global Scope 1 emissions (metric tons CO2e)

56322884

End-year of reporting period

2016

Comment

Row 4

Gross global Scope 1 emissions (metric tons CO2e)

59199780

End-year of reporting period

2015

Comment

C6.2

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

Row 1

Scope 2, location-based

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

C6.3

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

Row 1

Scope 2, location-based

<Not Applicable>

Scope 2, market-based (if applicable)

68534

End-year of reporting period

<Not Applicable>

Comment

Row 2

Scope 2, location-based

<Not Applicable>

Scope 2, market-based (if applicable)

70844

End-year of reporting period

2017

Comment

Row 3

Scope 2, location-based

<Not Applicable>

Scope 2, market-based (if applicable)

71542

End-year of reporting period

2016

Comment

Row 4

Scope 2, location-based

<Not Applicable>

Scope 2, market-based (if applicable)

75831

End-year of reporting period

2015

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?

No

C6.5

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

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO2e

22745

Emissions calculation methodology

Calculated by using CO2 emission factors/JPY of the guidelines "Policy on Emissions Unit Values for Accounting of Greenhouse, etc., by Organization Throughout the Supply Chain (Ver. 2.0)" that are provided by the Ministry of environment and the Ministry of Economy, Trade and Industry.

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

0

Explanation

The emission factors of the guideline are calculated by industries.

Capital goods

Evaluation status

Relevant, calculated

Metric tonnes CO2e

967560

Emissions calculation methodology

Calculated by using CO2 emission factors/JPY of the guidelines "Policy on Emissions Unit Values for Accounting of Greenhouse, etc., by Organization Throughout the Supply Chain (Ver. 2.0)" that are provided by the Ministry of environment and the Ministry of Economy, Trade and Industry.

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

0

Explanation

The emission factors of the guideline are calculated by industries.

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

Evaluation status

Relevant, calculated

Metric tonnes CO2e

9440010

Emissions calculation methodology

Calculated by emission factors by energy sources that are researched by Central Research Institute of Electric Power Industry (report number Y09027: "Evaluation of Life Cycle CO2 Emissions of Power Generation Technologies: Update for State-of-the-art Plants").

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

0

Explanation

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

12070

Emissions calculation methodology

Multiplied fuel consumption for transportation by emission factors.

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

0

Explanation

Waste generated in operations

Evaluation status

Relevant, calculated

Metric tonnes CO2e

84743

Emissions calculation methodology

Calculated by using CO2 emission factors/quantity of the guidelines that are provided by the Ministry of environment and the Ministry of Economy, Trade and Industry.

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

0

Explanation

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

2749

Emissions calculation methodology

Calculated by using CO2 emission factors/JPY of the guidelines "Policy on Emissions Unit Values for Accounting of Greenhouse, etc., by Organization Throughout the Supply Chain (Ver. 2.0)" that are provided by the Ministry of environment and the Ministry of Economy, Trade and Industry.

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

0

Explanation

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO2e

7074

Emissions calculation methodology

Calculated by using CO2 emission factors/JPY of the guidelines "Policy on Emissions Unit Values for Accounting of Greenhouse, etc., by Organization Throughout the Supply Chain (Ver. 2.0)" that are provided by the Ministry of environment and the Ministry of Economy, Trade and Industry.

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

0

Explanation

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

Not applicable to our business.

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

Not applicable to our business.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

Not applicable to our business

Use of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

Not applicable to our business.

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

Not applicable to our business.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

Not applicable to our business.

Franchises

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

Not applicable to our business.

Investments

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

Not applicable to our business.

Other (upstream)

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

Not applicable to our business.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

Not applicable to our business.

C6.7

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

Yes

C6.7a

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

50000

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

0.00002221

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

56467338

Metric denominator

unit total revenue

Metric denominator: Unit total

2542966000000

Scope 2 figure used

Market-based

% change from previous year

90

Direction of change

Decreased

Reason for change

Sales were increased mainly due to an increase in fuel cost adjustment charge and an increase in surcharge and grant based on Act on Special Measures Concerning Procurement of Electricity from Renewable Energy Sources by Electricity Utilities.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization have greenhouse gas emissions other than carbon dioxide?

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 CO ₂ e)	GWP Reference
CO ₂	56283515	IPCC Fourth Assessment Report (AR4 - 100 year)
N ₂ O	60662	IPCC Fourth Assessment Report (AR4 - 100 year)
SF ₆	54627	IPCC Fourth Assessment Report (AR4 - 100 year)

C-EU7.1b

(C-EU7.1b) Break down your total gross global Scope 1 emissions from electric utilities value chain activities by greenhouse gas type.

	Gross Scope 1 CO2 emissions (metric tons CO2)	Gross Scope 1 methane emissions (metric tons CH4)	Gross Scope 1 SF6 emissions (metric tons SF6)	Gross Scope 1 emissions (metric tons CO2e)	Comment
Fugitives	0	0	54627	54627	
Combustion (Electric utilities)	56278114	0	60662	56338776	
Combustion (Gas utilities)	0	0	0	0	
Combustion (Other)	5401	0	0	5401	
Emissions not elsewhere classified	0	0	0	0	

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	56398804

C7.3

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

By activity

C7.3c

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

Activity	Scope 1 emissions (metric tons CO2e)
Power generation	56338776
Power transmission and distribution, etc.	60028

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	56338776	<Not Applicable>	The reasons for emission decrease is development for high efficient thermal energy and increase of introducing renewable energy by FIT, etc.
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	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/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		68534	142780	0

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)
Head office and other offices, etc.		68534

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 CO ₂ e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption		<Not Applicable>		
Other emissions reduction activities	848808	Decreased	1.46	Increase of purchasing electricity generated from renewable energy. $(8,832,290 \text{ [MWh]} \times 0.485 \text{ [t-CO}_2\text{e/MWh]} - 7,067,598 \text{ [MWh]} \times 0.486 \text{ [t-CO}_2\text{e/MWh]}) / 58,048,285 \text{ [t-CO}_2\text{e]} \times 100\%$
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output	189220	Decreased	0.33	Decrease of electricity sales. $((121,431,346 \text{ [MWh]} - 121,821,490 \text{ [MWh]}) \times 0.486 \text{ [t-CO}_2\text{e/MWh]}) / 58,048,285 \text{ [t-CO}_2\text{e]} \times 100\%$
Change in methodology		<Not Applicable>		
Change in boundary		<Not Applicable>		
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other	542919	Decreased	0.94	Introduce high efficient thermal power plants and replace with high efficient turbines for enhancing efficiency of the existing plants. $(1,580,947 \text{ [t-CO}_2\text{e]} / (\text{total of emissions reduction} - 1,038,028 \text{ [t-CO}_2\text{e]} / (\text{total of the other reasons})) / 58,048,285 \text{ [t-CO}_2\text{e]} \times 100\%$

C7.9b

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

Market-based

C8. Energy

C8.1

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

More than 25% but less than or equal to 30%

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	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 MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	127121	244606873	244733994
Consumption of purchased or acquired electricity	<Not Applicable>	0	142780	142780
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	947	<Not Applicable>	947
Total energy consumption	<Not Applicable>	128068	244749653	244877721

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 steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

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

Fuels (excluding feedstocks)

Coal

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

72636866

MWh fuel consumed for the self-generation of electricity

72636866

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Fuels (excluding feedstocks)

Crude Oil Extra Heavy

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

34919

MWh fuel consumed for the self-generation of electricity

34919

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Fuels (excluding feedstocks)

Crude Oil

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

2037496

MWh fuel consumed for the self-generation of electricity

2037496

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Fuels (excluding feedstocks)

Diesel

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

62838

MWh fuel consumed for the self-generation of electricity

62838

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Fuels (excluding feedstocks)

Liquefied Natural Gas (LNG)

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

169834752

MWh fuel consumed for the self-generation of electricity

169834752

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Fuels (excluding feedstocks)

Wood Pellets

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

127121

MWh fuel consumed for the self-generation of electricity

127121

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

(C8.2d) List the average emission factors of the fuels reported in C8.2c.

Coal

Emission factor

2.29

Unit

metric tons CO2 per metric ton

Emission factor source

The Ministerial Ordinance under the Act on Promotion of Global Warming Countermeasures to report actual emission, reporting and disclosure system.

Comment

Crude Oil

Emission factor

2.66

Unit

kg CO2 per liter

Emission factor source

The Ministerial Ordinance under the Act on Promotion of Global Warming Countermeasures to report actual emission, reporting and disclosure system.

Comment

Crude Oil Extra Heavy

Emission factor

2.92

Unit

kg CO2 per liter

Emission factor source

The Ministerial Ordinance under the Act on Promotion of Global Warming Countermeasures to report actual emission, reporting and disclosure system.

Comment

Diesel

Emission factor

2.6

Unit

kg CO2 per liter

Emission factor source

The Ministerial Ordinance under the Act on Promotion of Global Warming Countermeasures to report actual emission, reporting and disclosure system.

Comment

Liquefied Natural Gas (LNG)

Emission factor

2.7

Unit

metric tons CO2 per metric ton

Emission factor source

The Ministerial Ordinance under the Act on Promotion of Global Warming Countermeasures to report actual emission, reporting and disclosure system.

Comment

Wood Pellets

Emission factor

0

Unit

Please select

Emission factor source

Comment

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	116641337	143613	7972615	947
Heat	0	0	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C-EU8.2e

(C-EU8.2e) For your electric utility activities, provide a breakdown of your total power plant capacity, generation, and related emissions during the reporting year by source.

Coal – hard

Nameplate capacity (MW)

4100

Gross electricity generation (GWh)

Net electricity generation (GWh)

26854

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Lignite

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Oil

Nameplate capacity (MW)

2275

Gross electricity generation (GWh)

Net electricity generation (GWh)

689

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Gas

Nameplate capacity (MW)

19095

Gross electricity generation (GWh)

Net electricity generation (GWh)

71888

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Biomass

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Waste (non-biomass)

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Nuclear

Nameplate capacity (MW)

3617

Gross electricity generation (GWh)

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Geothermal

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Hydroelectric

Nameplate capacity (MW)

5459

Gross electricity generation (GWh)

Net electricity generation (GWh)

7620

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Wind

Nameplate capacity (MW)

22

Gross electricity generation (GWh)

Net electricity generation (GWh)

20

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Solar

Nameplate capacity (MW)

17

Gross electricity generation (GWh)

Net electricity generation (GWh)

19

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Other renewable

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Other non-renewable

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Total

Nameplate capacity (MW)

34585

Gross electricity generation (GWh)

Net electricity generation (GWh)

107090

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

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.

C-EU8.4

(C-EU8.4) Does your electric utility organization have a global transmission and distribution business?

No

C9. Additional metrics

C9.1

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

C-EU9.5a

(C-EU9.5a) Break down, by source, your total planned CAPEX in your current CAPEX plan for power generation.

Primary power generation source	CAPEX planned for power generation from this source	Percentage of total CAPEX planned for power generation	End year of CAPEX plan	Comment
Please select				

C-EU9.5b

(C-EU9.5b) Break down your total planned CAPEX in your current CAPEX plan for products and services (e.g. smart grids, digitalization, etc.).

Products and services	Description of product/service	CAPEX planned for product/service	Percentage of total CAPEX planned products and services	End of year CAPEX plan
Energy management services	A new company for supplying IoT services ("IJ") was established in February 2018.			
Energy management services	As services for households, KatEne online membership service for general households to help make our customers' lives more convenient and comfortable.			
Energy management services	Utilize smart meters in households			2023
Electric vehicles	Introducing EV and PHV			2021

C-CO9.6/C-EU9.6/C-OG9.6

(C-CO9.6/C-EU9.6/C-OG9.6) Disclose your investments in low-carbon research and development (R&D), equipment, products, and services.

Investment start date

April 1 2017

Investment end date

March 31 2018

Investment area

Equipment

Technology area

Steam turbine and/or other component upgrades

Investment maturity

Small scale commercial deployment

Investment figure

Low-carbon investment percentage

Please explain

Introduce high efficient thermal power plants (Nishi-Nagoya) and replace with high efficient turbines for enhancing efficiency of the existing plants.

Investment start date

April 1 2017

Investment end date

March 31 2018

Investment area

Equipment

Technology area

Other, please specify (efficient air conditioners and lighting)

Investment maturity

Large scale commercial deployment

Investment figure

1800000000

Low-carbon investment percentage

100

Please explain

Introducing high efficient air conditioners and lighting facilities such as LED. Approx. 9% of total investment on climate change in FY2017.

Investment start date

April 1 2017

Investment end date

March 31 2018

Investment area

Equipment

Technology area

Infrastructure

Investment maturity

Small scale commercial deployment

Investment figure

7400000000

Low-carbon investment percentage

100

Please explain

Enhancing transmission and distribution network against introducing renewable energy by FIT Approx. 37% of total investment on climate change in FY2017.

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, 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)?

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

Japan carbon tax

C11.1c

(C11.1c) Complete the following table for each of the tax systems in which you participate.

Japan carbon tax

Period start date

April 1 2017

Period end date

March 31 2018

% of emissions covered by tax

100

Total cost of tax paid

0

Comment

The tax is included in Chubu's purchase amount of fuel and sellers of fuel pay the tax.

C11.1d

(C11.1d) What is your strategy for complying with the systems in which you participate or anticipate participating?

Developing renewable energy such as biomass, hydro and efficient thermal energy, like Nishi-Nagoya that is the most efficient (LHV63.08) in the world.

C11.2

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

Yes

C11.2a

(C11.2a) Provide details of the project-based carbon credits originated or purchased by your organization in the reporting period.

Credit origination or credit purchase

Credit origination

Project type

Hydro

Project identification

Grid connected Costa Rica 6.786MWsmall hydro project(CDM project number 0251)

Verified to which standard

CDM (Clean Development Mechanism)

Number of credits (metric tonnes CO2e)

341

Number of credits (metric tonnes CO2e): Risk adjusted volume

341

Credits cancelled

Yes

Purpose, e.g. compliance

Voluntary Offsetting

C11.3

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

Yes

C11.3a

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

Objective for implementing an internal carbon price

Navigate GHG regulations
Drive low-carbon investment
Stress test investments

GHG Scope

Scope 1

Application

Evaluation of risks and opportunities related to investment in power plants such as use of renewable energy, reducing the emission factor, achieving a ratio of energy generated from non-fossil energy sources of 44% or more and costs for regulations on climate issues.

Actual price(s) used (Currency /metric ton)

Variance of price(s) used

Use the prices of the IEA's Sustainable Development Scenario.

Type of internal carbon price

Shadow price

Impact & implication

Using internal carbon pricing for evaluating costs on achieving the emission target of ELCS (approx. 0.37 kg-CO2/kWh) and the ratio of energy generated from non-fossil energy sources (44% (Act No. 72)) or more, etc. and for considering the measures against them.

C12. Engagement

C12.1

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

No, we do not engage

C12.1d

(C12.1d) 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?

In relationships with suppliers, equipment and devices are not chosen in cooperation with a particular supplier. Instead the best ones are chosen by evaluating them in view of not only quality and cost but also environmental aspects through our procurement process. In relationships with customers, investigation of energy waste, proposal of reforms regarding the operation of facilities used and integrated development solutions that improve quality and productivity while conserving energy, etc., are included as part of our sales activities. R&D for highly efficient equipment and devices in cooperation with business customers. In cooperation with other companies like Toyota Motor Corporation and municipalities, participating in a project to establish a supply chain that produces, supplies and uses hydrogen produced from use of renewable energy. To low-voltage customers: propose information on efficient energy use for rational use of energy in their home. To high-voltage customer: consulting services for customers who consume a lot of electricity (for example, develop a heat plasticity CFRP rapid heater for Toyota Motor Corporation) and air conditioners, hot-water-supply systems, and industrial heaters using heat pump technology.

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?

Direct engagement with policy makers
Trade associations

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Clean energy generation	Neutral	Participated as a member of the committee and considered targets for Aichi Global Warming Prevention Strategy 2030 of Aichi Prefecture. Also participated in a committee of Aichi Prefecture for expanding usage of hydrogen that designs and develops verification schemes for hydrogen that is generated with low-emission energy.	Proposed targets and measures for Aichi Global Warming Prevention Strategy 2030 of Aichi Prefecture.
Other, please specify (the 5th Basic Environmental Plan)	Oppose	Submitted proposals on the draft version of the 5th Basic Environmental Plan in the public comment process.	Some of them were included in the decided plan.

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 Federation of Electric Power Companies of Japan (FEPC).

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The 12 power companies, as participants in the FEPC, formulated reduction targets in 1996 and have been implementing initiatives that have been assessed and verified yearly by the government since 1998. Since 2013, a low carbon society action plan for the electric power industry has been included in the Voluntary Action Plan/Commitment to a Low Carbon Society of KEIDANREN and FEPC has been taking initiatives from both the demand and supply sides and making efforts to realize such a society. Since the establishment of ELCS in 2016, the council has included their initiatives in the Action Plan, carried out measures of the plan and has been assessed by the government every year.

How have you, or are you attempting to, influence the position?

For environmental policies, laws, regulations, etc., under consideration by the government, Chubu considers opinions, proposals, etc., and submits them to the FEPC. The president of Chubu is the chairman of FEPC.

Trade association

The Electric Power Council for a Low Carbon Society (ELCS)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

In Japan, the retail electricity market has been fully liberalized, and new competitors are engaging in this business. The members of FEPC cannot cover the entire market anymore, and ELCS was launched in February 2016. Chubu has been a member of ELCS from the beginning. ELCS has determined action plans and targets to achieve the NDC. It covered 98% of the total retail sales of electricity in Japan in March 2017. Its targets are an emission factor of approx. 0.37 kg-CO₂/kWh and an essential reduction of maximum emission by 11 million ton-CO₂ by use of best-available technologies in thermal power plants. The council has included their initiatives in the Action Plan of KEIDANREN, carried out measures of the plan and has been assessed by the government every year.

How have you, or are you attempting to, influence the position?

Chubu, as a member of ELCS, reports our plans and results concerning climate issues to ELCS and makes proposals for enhancing the effectiveness of ELCS's activities, such as improvement of the PDCA cycle. An employee of Chubu is a director of ELCS.

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?

Issues concerning regulations, measures, etc. for climate, current situations of government and industries and their impacts on Chubu's business activities are addressed as a report from FEPC in an Executive Officers Meeting every month. The president of Chubu is the chairman of FEPC and supervises all activities concerning climate issues, etc.

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 mainstream reports

Status

Complete

Attach the document

ecsr_report_2017_3.pdf
eirl_financialreports_2018_08.pdf
eirl_presentations_20180510_3.pdf
investors_2018.pdf

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

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.

The attached annual report written by English is published last year and the newest one describes the achievement in 2017 will be published this autumn.

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	Executive Officer, General Manager, Environmental Affairs & Regional Relations Office.	Other C-Suite Officer

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	Public or Non-Public Submission	I am submitting to
I am submitting my response	Public	Investors

Please confirm below

I have read and accept the applicable Terms
