

# Reference Casebook of Good Practices on the Disclosure of Narrative Information: 2021 Edition

**Tentative translation by OECC commissioned under MOEJ  
without review by FSA or referenced companies**

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MOEJ: Ministry of the Environment, Japan  
FSA: Financial Services Agency, Japan

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**March 25, 2022**

# Introduction – Structure / Usage of “the Reference Casebook of Good Practices on the Disclosure of Narrative Information” –

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- This Reference Casebook is a summary of disclosure practices discussed by investors, analysts and corporate members in a study meeting on good practices of disclosures.
- This Reference Casebook consists of “Disclosure practices concerning the sustainability information in annual securities reports” and “Disclosure practices concerning the business status, etc. in annual securities reports”.
- For each of the disclosure practices, the points focused on as the good practices are surrounded by a blue frame along with comments in a blue box.
- Extraction / omission of texts, figures and tables, as well as layout changes have been made as needed for disclosure practices. As the complete picture is shown in the target disclosure materials and the corresponding pages, please search and check on the EDINET or each company website.
- In this Reference Casebook, new companies have been introduced actively to further expand the base of good practices.
- This Reference Casebook will add items as needed.

! The latest version is shown on the website of Financial Services Agency. <https://www.fsa.go.jp/policy/kaiji/kaiji.html>

! Publication of disclosures as good practices does not guarantee that there are no errors in the contents of narrative information in the disclosure practices concerned.

Reference Casebook of Good Practices on the Disclosure of Narrative Information: 2021 Edition  
Financial Services Agency December 21, 2021

# Disclosure practices concerning the sustainability information in annual securities reports

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# Main comments from investors and analysts\*: General matters / Human capital

○ Main comments from investors and analysts, aside from the evaluation points in individual disclosure practices, are as follows.

## [General matters]

- “How the cross-sectional efforts are made within the company” is a matter of concern.
- It is necessary to recognize that the sustainability information is interpreted by investors as “a new source of investment return”.
- Sustainability governance (oversight of responses to sustainability issues by the board of directors and motivation for the management) is also drawing attention.
- It is important that the strategy incorporates the recognition of risks and opportunities and also the monitoring system of the importance, frequency, etc.

## [Human capital]

- Since employees play the most important role in a corporate value creation process, utilization of human capital is also critical for investors.
- Concerning the perspective of diversity and inclusion and how to take advantage of diversity, the concept of human resource portfolio is very important.
- As an initiative for human resource investment, KPIs not only from the company’s prospective but also reflecting the employees’ awareness are necessary.

\* Investors and analysts that participated in the “Study meeting on good practices on disclosure of narrative information” (the same applies hereinafter)

**Reference Casebook of Good Practices on the Disclosure of Narrative Information: 2021 Edition**

**Financial Services Agency December 21, 2021**

**Disclosure practices concerning the sustainability information in annual securities reports**

## **1. Practices of disclosures “related to climate change”**

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# Main points of disclosures expected by investors and analysts: Related to climate change

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- **Disclosures according to the four core areas of the TCFD Recommendations\*** are useful.
- It is important to disclose **how** the climate change risks **are monitored**.
- **Disclosures in terms of both risks and opportunities** are indispensable for investment decisions.
- **What risks are posed by the climate change to the company; whether it is important for their strategy;** and how these are recognized as a fact should be disclosed.
- It is important to disclose **in what way the increase/decrease of risks affects the financial situation**, and the information on the **quantitative financial impact** is very useful for investment decisions.
- **Disclosures of past numerical results** such as greenhouse gas emissions are useful information to conduct corporate value analysis.

\* See the next page for the contents of TCFD Recommendations.

## [Reference] TCFD Recommendations (recommended disclosure items)

- The TCFD Recommendations present recommended disclosure contents concerning the four core areas (governance, strategy, risk management, and metrics and targets).

Governance	Strategy	Risk management	Metrics and targets
<p>Disclose the organization's governance around climate-related risks and opportunities.</p>	<p>Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.</p>	<p>Disclose how the organization identifies, assesses, and manages climate-related risks.</p>	<p>Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities.</p>
Recommended disclosure contents	Recommended disclosure contents	Recommended disclosure contents	Recommended disclosure contents
<p>a) Describe the board's oversight system of climate-related risks and opportunities.</p>	<p>a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.</p>	<p>a) Describe the organization's processes for identifying and assessing climate-related risks.</p>	<p><b>a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.</b></p>
<p>b) Describe management's role in assessing and managing climate-related risks and opportunities.</p>	<p>b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.</p>	<p>b) Describe the organization's processes for managing climate-related risks.</p>	<p><b>b) Describe Scope 1, Scope 2 and, if applicable to the organization, Scope 3 greenhouse gas (GHG) emissions and the related risks. (Note)</b></p>
	<p><b>c) Describe the resilience of the organization's strategy, taking into consideration different climate-related future scenarios, including a 2°C or lower scenario.</b></p>	<p>c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.</p>	<p><b>c) Disclose the targets used by the organization to manage climate-related risks and opportunities as well as performance against targets.</b></p>

(Note) Scope 1: Direct greenhouse gas emissions from the organization; Scope 2: indirect GHG emissions through the use of electricity, heat, and steam supplied from other companies; Scope 3: indirect emission other than Scope 1 and Scope 2 (emissions from other companies related to the organization's activities)

(Reference) The disclosure items shown in blue color require quantitative information.

(Source) TCFD Final Reports (in Japanese), etc.

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# J. FRONT RETAILING Co., Ltd. (1/6) Annual Securities Report (FY ended February 28, 2021) pp. 38-39

**(1) [Business-related risks] \*Excerpt**

(5) Information disclosure in line with the TCFD Recommendations

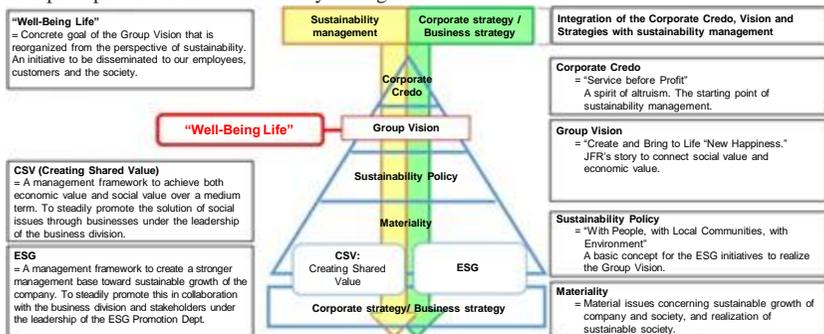
(i) Sustainability management that the JFR Group is aiming for

Recently, the business environment has become increasingly uncertain. In addition, in the society that has transitioned to the new normal due to the prolonged COVID-19 impact, companies should understand social value and carry out management under the umbrella of sustainability management.

We believe that we will be able to obtain a “framework for sustainable management” for future growth by incorporating the concept of sustainability into our corporate strategies and business strategies.

The strength of JFR Group (core competence) is our ability to connect (find, discover and compile) “makers” and “users”. We have named our unique new wealth as “Well-Being Life”, from the perspective that combines “sustainability”, our unique characteristics including “beauty”, “health”, “high quality”, “culture” and “trust”, and our “ability to connect makers and users”, which is our strength. “Well-Being Life” is the goal of the Group Vision which is reorganized from the perspective of sustainability, and we will spread this to our stakeholders through our efforts for solutions for environmental and social issues.

- Complete picture of the sustainability management



(ii) Enhancing of materiality in the new medium-term business plan

To ensure the steady corporate growth, the JFR Group believes that we must identify the effective materiality issues for sustainable growth, incorporate them into the core vision for corporate management and business plans and implement them.

In consideration of environmental issues, changes in external environment due to the impact of COVID-19, etc., and balance of existing materiality issues, and furthermore, the global contribution to the SDGs targeted to be achieved by 2030, we have reviewed the materiality issues by back casting from 2030, and as a result, we have newly added “realization of customers’ healthy/safe/secure life” and “promotion of circular economy” to the materiality issues under the new medium-term business plan.

Also, the existing materiality issues, specifically “contribution to a low-carbon society”, “promotion of diversity”, and “realization of work-life balance”, have been renamed respectively, in a response to the advancement of contents of each initiative, to “realization of decarbonized society”, “promotion of diversity & inclusion”, and “realization of work-life integration”.

**(2)** Regarding the newly identified seven materiality issues, The Group has established KGIs for FY 2023 and KPIs for FY 2030 to clarify the commitments that we aim to achieve by FY 2030. We will strive in the Group-wise efforts to achieve them.

Seven materiality issues newly identified by the JFR Group

Materiality issue	KGI for FY 2030	Commitment by the JFR Group for realization of sustainable society
Realization of decarbonized society	Leading a decarbonized society and creating a global environment for the next generation	To hand down our precious global environment to future generations, we will strive in the Group-wide efforts to expand renewable energy procurement and maximize energy conservation, among other things, thus contributing to the realization of decarbonized society.
Promotion of circular economy	Realizing a sustainable global environment for the future and corporate growth through the promotion of circular economy	We will create innovative business models for the purpose of generating new environmental value, and acquire a competitive advantage in a circular economy, working together with suppliers and customers.
Management of the entire supply chain	Realizing sustainable supply chain created along with suppliers	We will share our views on sustainability with our suppliers and fulfill our social responsibilities together with them to contribute to the creation of a sustainable future society via the supply chain as a whole.
	Realizing decarbonization throughout the supply chain created along with suppliers	We will strive to procure and sell eco-friendly products and services together with suppliers and, at the same time, replace electric power with renewable energy and pursue greater energy conservation, thus contributing to the realization of decarbonized society.
	Realizing Well-Being in which we, along with suppliers, protect the human rights and health of the people working along the supply chain	We will work with our suppliers to create a work environment in which the human rights of the people working in the supply chain will be protected and the people will be able to continue to work in good health.
Coexistence with local communities	Together with local communities, creating prosperous future-oriented communities in which people gather, centered on our stores	Together with local communities, governments, NGOs, and NPOs, we will use our stores as a base to contribute to the creation of sustainable communities that draw on local assets. We will also identify the charm and attractions of each area and make them widely known, so as to offer exciting new experience to its visitors.
Realization of customers’ healthy/safe/secure life	Realizing a future-oriented Well-Being Life that satisfies the mind and body of customers	We suggest Well-Being that is unique to each customer and a rich and exciting future by staying close to the lives of customers with physical and mental health and security, and providing high-quality and comfortable products and services.
	Creating safe, secure, and resilient stores with an eye on the future	We will create new customer contact points with consideration given to safety and security and promote the creation of stores that meet the expectations of society. To that end, we will prevent disasters, respond to infection risks, comply with our BCP (business continuity plan), increase store resilience, and at the same time, build operational systems that utilize digital technology.
Promotion of diversity & inclusion	Realizing a highly diverse society where everyone recognizes each other’s diversity and flexibly demonstrates his/her individuality	With diversity and flexibility as keywords, we will create a company where all stakeholders will appreciate different individualities and perspectives that are the essence of diversity, and be able to demonstrate their diverse abilities. Furthermore, by having diverse individualities and abilities interact with each other and function with each other (inclusion), we will create innovation, meet the expectations of diverse customers, and aim to grow our business.
Realization of work-life integration	Realizing Well-Being for the employees and their families through new work styles for the future in which diversity and flexibility will be realized	As new work styles in the new normal era, we will promote work styles with the keywords of diversity and flexibility, and maintain physical and mental health at the same time. It will realize the Well-Being Life of employees and their families and lead to an increase in organizational productivity.

**(1) Plainly describing the complete picture of sustainability management with figures and tables**  
**(2) Including the supply chain management and plainly describing the KGIs (Key Goal Indicators) and commitments for each materiality issues**

# J. FRONT RETAILING Co., Ltd. (2/6) Annual Securities Report (FY ended February 28, 2021) pp. 40-41

[Business-related risks] \*Excerpt

(iii) Response to climate change

Nowadays, climate change and other environmental issues are growing to be increasingly serious globally.

Japan has been heavily affected as well, suffering frequent major natural disasters caused by abnormal weather. Climate change has developed into a situation companies cannot overlook.

Against that background, the JFR Group considers climate change as the most important issue on the sustainability management and recognizes that risks and opportunities accompanied by climate change have a major impact on our business strategy. Among the seven materiality issues newly identified in FY 2021, the Group positions “realization of decarbonated society” as the most important materiality issue, and we implement active measures such as introduction of renewable energy-derived electricity, reduction of energy consumptions and other appropriate efforts to reduce Scope 1 and 2 GHG emissions.

Furthermore, a new materiality issue, “promotion of circular economy”, has been added this time as a solution for environmental issues.

On the other hand, as the Group is a corporate group with retail at its core, we recognize that it is very important to reduce Scope 3 emissions in collaboration with our clients as suppliers and customers as consumers, and accordingly, we are committed to this issue under one materiality issue, “management of the entire supply chain”.

(iv) Information disclosure in line with the four disclosure items recommended by the TCFD Recommendations

The TCFD Recommendations recommend that every company should disclose information based on the four items: “governance”, “risk management”, “strategy”, and “metrics and targets.” The Group proceeds with climate-related information disclosure in line with the four disclosure items of TCFD Recommendations.

Disclosure item	Concrete disclosure contents
Governance	(a) Process by which the Board of Directors receives reports on climate-related issues, frequency with which these issues are tabled for discussion, and monitored items
	(b) Responsibility of management for climate-related issues, the process for receiving reports (committees, etc.), and method of monitoring
Risk management	(a) Detailed processes for identifying and assessing climate-related risks, and method for determining importance
	(b) Detailed processes for management of important climate-related risks, and method of prioritizing them
	(c) How the processes are integrated into the organization’s overall risk management
Strategy	(a) Details of risks and opportunities over the short, medium and long term
	(b) Description of risks and opportunities and their degree of impact on the organization’s business, strategy and financial planning
	(c) Risks, opportunities and financial impacts based on relevant scenarios, and resilience of strategies against it
Metrics and Targets	(a) Metrics used to manage climate-related risks and opportunities
	(b) GHG emissions (Scope 1, 2, and 3)
	(c) Targets used to manage climate-related risks and opportunities and performance against targets

<Governance (governance for environmental issues)>

(a) Process by which the Board of Directors receives reports on climate-related issues, frequency with which these issues are tabled for discussion, and monitored items

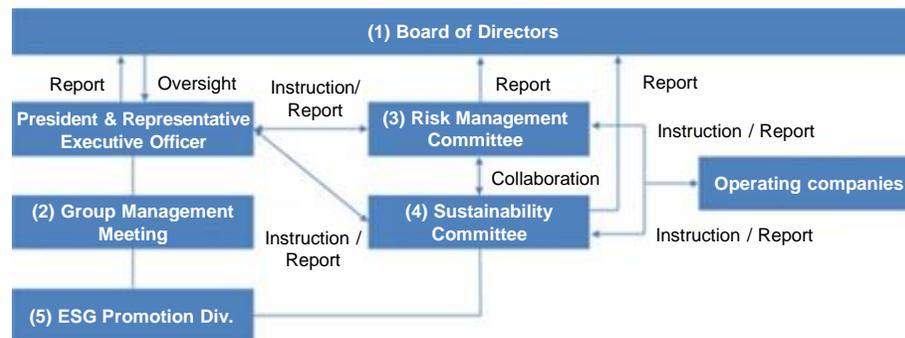
In order to promote sustainability management at all the Group companies in a cross-sectional manner, the “Group Management Meeting”, which is the highest decision-making body in business execution, holds talks and adopts resolutions regarding specific initiatives and measures associated with environmental issues. At a semiannual meeting of the “Sustainability Committee”, we share policies and other matters on our response to environmental issues discussed and decided by the “Group Management Meeting”, and draw up execution plans concerning the Group’s environmental issues as well as monitoring progress in their implementation.

The Board of Directors discusses and supervises the Group’s policies on response to environmental issues, policy execution plans and the like, acting on reports over discussions and decisions at the “Group Management Meeting” and the “Sustainability Committee.”

(b) Responsibility of management for climate-related issues, the process for receiving reports (committees, etc.), and method of monitoring

The President and Representative Executive Officer chairs the “Group Management Meeting” as well as the “Risk Management Committee” and the “Sustainability Committee”, both advisory panels under his control. He thus bears final responsibility for management judgments associated with environmental issues. Details of matters discussed and decided by the “Group Management Meeting” and the “Sustainability Committee” are eventually reported to the Board of Directors.

- Chart of the environmental management system in the JFR Group



- (1) Describing specific contents for each disclosure item of TCFD Recommendations (Describing all the eleven items, in addition to the four basic items)
- (2) Describing the environmental management system, including a line of command such as “command / report” and “oversight”

# J. FRONT RETAILING Co., Ltd. (3/6) Annual Securities Report (FY ended February 28, 2021) pp. 41-42

[Business-related risks] \*Excerpt

- Meeting bodies and their roles in the environmental management system

Meeting body and system	Role
(1) Board of Directors	Supervises the progress of environment-related initiatives discussed and approved by people who execute business. Meets monthly. To be held monthly.
(2) Group Management Meeting	Discusses and decides the measures related to the Group-wide management including specific environment-related initiatives. The decisions are reported to the Board of Directors. To be held weekly.
(3) Risk Management Committee	Extracts comprehensive risks including environmental issues and discusses and decides the measures against them. Monitors the progress of operating companies and reports the decisions to the Board of Directors. To be held as needed.
(4) Sustainability Committee	Discusses and decides the policy to address environmental issues discussed by the Group Management Meeting. Formulates the long-term plans and KGIs/KPIs related to environmental issues and monitors the progress of operating companies. The decisions are reported to the Board of Directors. To be held semiannually.
(5) ESG Promotion Division	Promotes the Group-wide response to environmental issues. Collects environment-related information and reports to the Group Management Meeting, the Sustainability Committee and the Risk Management Committee.

<Risk management>

- (2) (a) Detailed processes for identifying and assessing climate-related risks, and method for determining importance

The JFR Group considers risk to be the starting point of strategy, and we have defined it as “uncertainty that affects the corporate management’s achievement of goals, having both a positive side and a negative side.” We believe that appropriate handling of risk leads companies to sustainable growth. In the Group, the Sustainability Committee” conducts more detailed examinations of the environmental risks and shares the results with operating companies. Operating companies incorporate climate actions into their action plans. They discuss and confirm the progress of the action plans at the meetings chaired by their presidents. “The Group Management Meeting”, “the Risk Management Committee” and “the Sustainability Committee” monitor the progress, and finally, report to the Board of Directors.

- (1) (b) Detailed processes for management of important climate-related risks, and method of prioritizing them

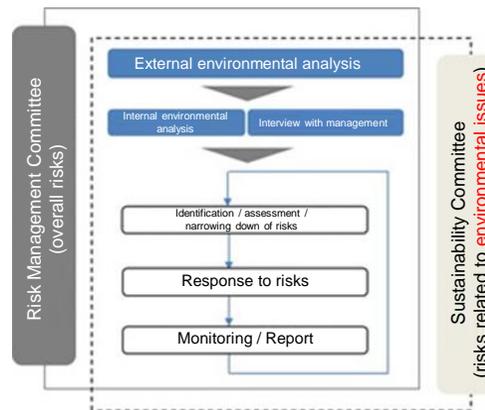
With the recognition that climate-related risks and opportunities have a great impact on its business strategies, the JFR Group identified climate-related risks and opportunities through the process shown below and assessed their importance.

- (2) Firstly, the Group extracted climate-related risks and opportunities exhaustively for each activity item of supply chain process: “product procurement”, “transportation and customer movement”, “sales in stores”, “use of products and services”, and “disposal.” Next, we identified important climate-related risks and opportunities for the Group from among the exhaustively extracted climate-related risks and opportunities. Finally, we assessed the importance of the identified climate-related risks and opportunities based on two assessment criteria of “degree of impact on the Group and the probability of occurrence” and the “degree of impact on stakeholders.” The Group reflects, under the supervisory system of the Board of Directors, the climate-related risks and opportunities rated as particularly important through the process shown above in its strategies as its corporate risks to address them.

- (1) (c) How the processes are integrated into the organization’s overall risk management

The JFR Group has established “the Risk Management Committee” based on the importance of building a structure for managing risks across the Group. “The Risk Management Committee” identifies and assesses corporate risks, including risks related to environmental issues, based on external environment analysis, narrows them down to the risks that need to be preferentially addressed, and monitors progress on them. The matters discussed and approved by “the Risk Management Committee” are reflected in the Group’s strategy and implemented under the supervisory system by the Board of Directors.

- Risk management process



- Risk management system

Risk management process	Responsible meeting bodies
Identification / assessment / narrowing down of risks	- Board of Directors - Group Management Meeting - Risk Management Committee (overall risks related to management) - Sustainability Committee (risks related to environmental issues)
Response to risks	- Operating companies
Monitoring / report	- Board of Directors - Group Management Meeting - Risk Management Committee (overall risks related to management) - Sustainability Committee (risks related to environmental issues)

(1) Describing specific contents for each disclosure item of TCFD Recommendations

(2) Describing details of the processes for identifying risks and opportunities and for assessing their importance

# J. FRONT RETAILING Co., Ltd. (4/6) Annual Securities Report (FY ended February 28, 2021) pp. 43-44

[Business-related risks] \*Excerpt

<Strategy>

(a) Details of risks and opportunities over the short, medium and long term

(1) The JFR Group considers it important to examine risks related to environmental issues at the appropriate milestone occasions because of the potential impact on its business activities over the long term. The Group, taking into account the execution phase of the Medium-term Business Plan from FY 2021 to FY 2023 and the SBT target year that is set to FY 2030, examines the physical risks of abnormal weathers caused by climate change, introduction of governmental policy regulations, and transition risks due to changes in market needs\* and so on, and reflects the risks and opportunities identified as a result of examination in the Group’s strategy and addresses them.  
\* Described in the table for (b), “Overview of risks and opportunities in the JFR Group and their financial impacts.”

- Definition of the periods for consideration of climate-related risks and opportunities in the JFR Group

	Periods	Definition
Medium term	From FY 2021 to FY 2023	Execution period of the Medium-term Business Plan from FY 2021 to FY 2023
Long term	Until FY 2030	Period until the SBT target setting year for Scope 1, 2, and 3 GHG emissions in the JFR Group

(1) (b) Description of risks and opportunities and their degree of impact on the organization’s business, strategy and financial planning

The JFR Group conducts scenario analysis in order to understand the risks and opportunities that climate change provides to the Group and their impacts and to examine the resilience of the Group’s strategies envisaging the world in FY 2030, and the necessity of further measures.

In the scenario analysis, we referenced multiple existing scenarios announced by the International Energy Agency (IEA) and the Intergovernmental Panel on Climate Change (IPCC), then considered two world scenarios: The Group assumes two possible worlds: one scenario assumes “limiting the average global temperature rise to no more than 2°C above pre-industrial levels”, or the Paris Agreement goal (a below-2°C scenario), and another scenario under which it is assumed that already published national policies and regulations are achieved without introducing new policies and schemes, entailing an increase in the volume of global greenhouse gas emissions from the current level (a 4°C scenario).

Toward the “realization of decarbonized society”, which the Group regards as the most important materiality issue, we are analyzing effects caused by climate change, discussing means of addressing them, and verifying the Group’s strategic resilience, all in connection with the Group’s business activities, on the basis of the above scenarios.

(2) - Scenarios used for reference

Assumed worlds	Existing scenarios
Below-2°C scenario	“Sustainable Development Scenario (SDS)” (IEA, 2019, 2020)
	“Representative Concentration Pathways (RCP2.6)” (IPCC, 2014)
	“Stated Policy Scenario (STEPS)” (IEA, 2019, 2020)
4°C scenario	“Representative Concentration Pathways (RCP6.0, 8.5)” (IPCC, 2014)

- Impact on business and finance of the JFR Group in below-2°C and 4°C scenarios for 2030  
The overview of JFR Group’s risks and opportunities and their impact on the Group’s business and finance under the two scenarios is as described below. The degree of impact on business and finance is shown qualitatively by the slope of arrows in three stages.

(2)

- Overview of risks and opportunities in the JFR Group and their financial impacts

Type of risk / opportunity		Overview of the JFR Group’s risks / opportunities	Business and financial impact		
			Below-2°C scenario	4°C scenario	
Risk	Transition risk	Policy regulation	↑	↗	
			↑	↗	
	Market		↗	→	
			↗	→	
	Physical risk	Acute		↗	↑
				↗	↑
Opportunity	Energy source		↗	→	
			↗	→	
	Products & services		↑	↗	
			↑	↗	
	Market		↑	↗	
			↑	↗	

- ↑ : The impact on the JFR Group’s business & finance is expected to be very large.
- ↗ : The impact on the JFR Group’s business & finance is expected to be slightly large.
- : The impact on the JFR Group’s business & finance is expected to be negligible.

- (1) Describing specific contents for each disclosure item of TCFD Recommendations
- (2) Describing the overview of risks and opportunities as well as the details of degree of impacts on each scenario, including the existing scenarios used for reference

## J. FRONT RETAILING Co., Ltd. (5/6) Annual Securities Report (FY ended February 28, 2021) pp. 45-46

**(1) [Business-related risks] \*Excerpt**

(c) Risks, opportunities and financial impacts based on relevant scenarios, and resilience of strategies against it

As approx. 90% of GHG emissions in the JFR Group stems from the use of electricity, we believe it important to focus on the procurement of renewable energy-derived electricity in the Group's efforts to reduce GHG emissions. Under the circumstances, we believe that, among the business and financial impacts estimated for 2030 in the two scenarios, the introduction of a carbon tax\* and fluctuations in renewable energy-derived electricity rates in Japan, in particular, will be important parameters (indicators). Therefore, for the two parameters of the below-2°C scenario and the 4°C scenario, we quantitatively estimate their financial impacts on the Group.

\* Taxes levied on CO2 emissions, the main cause of climate change

**(2) - Financial impacts on the JFR Group estimated for 2030**

Important parameter (indicator)	Financial impact on the JFR Group estimated for 2030		
	Item	Below-2°C scenario	4°C scenario
Carbon tax	- Carbon tax (thousands of yen/t-CO2)	10	3.3
	- Cost increase due to carbon tax (millions of yen)	770	254
Renewable energy-derived electricity rates	- Increase in renewable energy-derived electricity rates (yen/kWh)	1 - 4	
	- Increase in procurement costs of renewable energy-derived electricity (millions of yen)	196 - 784	

(Assumptions for 2030)

- Carbon tax price\*1: \$100/t-CO2 (below-2°C scenario), \$33/t-CO2 (4°C scenario) \*2

\*1 Refer to “Stated Policy Scenario (STEPS)” (IEA, 2019).

\*2 By assuming the introduction of carbon tax in Japan, estimation for 2030 in the 4°C scenario is based on the carbon tax price in EU.

- The JFR Group's GHG emissions: about 77,000 t-CO2 (down 60% from FY 2017)

- Renewable energy-derived electricity rate: Increase of 1 to 4 yen/kWh (vs. electricity rate other than renewable energy)

- The JFR Group's usage of renewable energy-derived electricity: 196,000 MWh (ratio of renewable energy: 60%)

**(3)** The Group will strengthen its strategic resilience from medium- to long-term perspectives in both below-2°C and 4°C scenarios. Therefore, we will seek to acquire new opportunities of growth in our business strategy and Medium-term Business Plan, formulating measures to properly avoid risks, or negative factors, while addressing opportunities, or positive factors, by proactively responding to market changes, for example.

<Metrics and targets>

**(1) (a) Metrics used to manage climate-related risks and opportunities**

The JFR Group has established two metrics for managing climate-related risks and opportunities: Scope 1, 2, and 3 GHG emissions and the renewable energy share within electricity used in business activities.

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**(1) (b) GHG emissions (Scope 1, 2, and 3)**

The JFR Group started calculating the total GHG emissions for the Group in fiscal 2017. The Group's Scope 1 and 2 GHG emissions in FY 2020 are estimated as approx. 136,000 t-CO2 (down 16.3% from FY 2019). Furthermore, the Group's Scope 3 GHG emissions in FY 2020 are estimated as approx. 2,830,000 t-CO2 (down 25.2% from FY 2019).

The Group has received third-party assurance for GHG emissions since FY 2017 and is expected to obtain the third-party assurance for GHG emissions in FY 2020.

- Results and outlook of the JFR Group's Scope 1, 2, and 3 GHG emissions

(Unit: t-CO2, %)

	Result of GHG emissions			Outlook of GHG emissions	
	FY 2017	FY 2018	FY 2019	FY 2020	vs. FY 2019 (increase/decrease)
Total Scope 1 and 2 emissions	194,154*	182,565*	162,508*	136,000	-16.3
Breakdown	Scope 1 emissions	16,052*	15,960*	13,000	-14.6
	Scope 2 emissions	178,102*	166,605*	147,294*	123,000
Total Scope 3 emissions	3,075,130	3,123,238	3,782,555*	2,830,000	-25.2

**(1)** \* Obtained the third party assurance from LRQA Limited.

**(c) Targets used to manage climate-related risks and opportunities and performance against targets**

The JFR Group has set long-term GHG emission reduction targets since FY 2018 to achieve the global below-2°C target. Our targets to “reduce Scope 1, 2, and 3 GHG emissions 40% (from FY 2017) by 2030” were approved by the “SBT (Science-Based Targets) initiative\*1”. Given the progress in our initiatives to date, we have revised the Scope 1 and 2 target to a more ambitious goal of “reducing Scope 1 and 2 GHG emissions 60% (from FY 2017) by 2030.” Moreover, we have set a target to achieve “net zero Scope 1 and 2 GHG emissions by FY 2050”, aiming for the realization of carbon neutral.

To achieve these long-term targets, the Group began procuring renewable energy-derived electricity at its facilities in FY 2019, and joined “RE100 \*2” in October 2020. Going forward, we will strive to increase procurements of renewable energy-derived electricity toward realizing carbon neutral.

\*1 Established by a collaboration among the four organizations of CDP, the United Nations Global Compact, World Resources Institute (WRI) and World Wide Fund for Nature (WWF) in 2015 for the purpose of promoting the achievement of science-based GHG emission reduction targets to limit the temperature increase to below 2°C compared with pre-industrial levels.

\*2 An international initiative seeking to source 100% of electricity consumption in business activities from renewable energy by 2050.

**(1) Describing specific contents for each disclosure item of TCFD Recommendations**

**(2) Quantitatively describing financial impacts under each scenario with fluctuations of important metrics**

**(3) Describing concrete ideas for setting targets and details of initiatives**

## J. FRONT RETAILING Co., Ltd. (6/6) Annual Securities Report (FY ended February 28, 2021) p. 47

[Business-related risks] \*Excerpt

- Targets used by the JFR Group to manage climate-related risks and opportunities

Metrics	Target fiscal year	Details of target
GHG emissions	2050	Net zero Scope 1 and 2 GHG emissions
	2030	60% reduction of Scope 1 and 2 GHG emissions*1 (vs. FY 2017) Aim for 40% reduction of Scope 3 GHG emissions (vs. FY 2017) *2 *1 Reduction rate approved by the SBT initiative is 40%. *2 Approved by the SBT initiative.
Share of renewable energy in electric power used in business activities	2050	100% renewable energy share in electric power used in business activities *3 *3 Joined RE100 in 2020.
	2030	60% renewable energy share in electric power used in business activities

(v) Future efforts

Nowadays, the conventional “linear economy” based on disposable use of natural resources and products has caused serious climate change, including depletion of natural resources due to mass exploitation, global warming due to GHG emissions, and ocean pollution due to massive generation of wastes.

The JFR Group believes it important to respond to climate risks and opportunities using the strength of a corporate group with retail at its core. Specifically, we will take on the following initiatives, among others:

- Realization of a resilient supply chain by enhancing measures to address physical climate risks;
- Contribution to local communities by creating sustainable stores through CSV initiatives with stores at the core;
- Realization of new business opportunities through the promotion of “circular economy”; and
- Positive response to low-carbon products & services meeting changes in the consumption behavior of consumers.

Going forward, the Group will strengthen governance in environmental management, under the oversight of the Board of Directors, and proceed with the Group-wide initiatives, including the formulation of execution plans, toward the realization of medium- to long-term targets.

- Describing the metrics used to manage risks and opportunities by explicitly indicating the target fiscal years and showing the target contents in details and quantitatively

# Ricoh Company, Ltd. (1/3) Annual Securities Report (FY ended March 31, 2021) pp. 22-23

[Management policies, management environments and issues to be addressed] \* Excerpt

(2)

◆ (Reference) Actions on Climate Change: Disclosure Based on the TCFD (Task Force on Climate-related Financial Disclosures) Framework  
 “Climate change” poses one of the most pressing challenges to global society.  
 In order to support the Paris Agreement, the Ricoh Group has set long-term environmental goals “to achieve practically zero GHG\*1 emissions across the entire value chain by 2050.” We have also set a high level “GHG emission reduction target of 63% reduction in 2030 (compared to 2015 level), which has been validated by SBTi\*2, an international climate change initiative, as “an SBT 1.5°C” level.  
 To achieve this target, we have formulated a GHG reduction roadmap to 2030 and have been promoting thorough energy-saving activities and active use of renewable energy sources. To do so, we became the first Japanese company to participate in “RE100”, an international initiative aiming for 100% conversion to renewable energy.  
 Since actions on climate change is one of the important management issues, from 2020, we have positioned “GHG emission reduction targets” as one of the “ESG targets” based on our management strategy, and we are promoting an effective climate change initiative by linking it to the remuneration of officers and senior management.  
 Furthermore, under the supervision of the ESG Committee, chaired by our CEO, we have identified the risks and opportunities related to climate change and are working to mitigate and adapt to climate change. In particular, we will strive to reduce risk by formulating and implementing a risk management plan and a business continuity plan (hereinafter BCP) in response to natural disasters, which are becoming more and more severe. In addition, we will contribute to the creation of a decarbonized society throughout the entire value chain by improving the energy efficiency of our products and collaborating with our business partners and customers.

\*1 GHG: Greenhouse Gas  
 \*2 SBT (Science Based Targets) initiatives: International initiatives to certify that GHG reduction targets of a company are consistent with scientific evidence

The Ricoh Group’s environmental goals (Zero-carbon area)	
Environmental goals	<p>&lt;Goals for 2050&gt;</p> <ul style="list-style-type: none"> <li>- Aim for zero GHG emissions across the entire value chain</li> <li>- Switch 100% of electricity used in business operations to renewable energy</li> </ul> <p>&lt;Goals for 2030&gt;</p> <ul style="list-style-type: none"> <li>- GHG scope 1 and 2*: 63% reduction*3 vs FY 2015</li> <li>- GHG scope 3*: 40% reduction vs FY 2015 (procurement, usage and logistics category)</li> <li>- Switch 50% of electricity used in business operations to renewable energy</li> </ul> <p>*3 Reduction target in line with the SBT (Science Based Targets)</p> <p>* GHG scope 1: GHG directly emitted by Ricoh Group factories, offices, vehicles, etc.                  * GHG scope 2: GHG produced by heat/power purchased by the Ricoh Group                  * GHG scope 3: Supply chain emissions from corporate activities (excluding GHG scope 1 and 2)</p>
Concept	<ol style="list-style-type: none"> <li>1. Aim to achieve “net-zero GHG emissions” from its own business activities through comprehensive energy conservation activities and the use of renewable energy.</li> <li>2. Aim to establish a zero-carbon society by providing highly energy-efficient products and solutions and by actively encouraging business partners to do the same.</li> <li>3. Actively work on adaptation against climate change in the society.</li> </ol>

<Governance: the organization’s governance around climate-related risks and opportunities>

Action	<ul style="list-style-type: none"> <li>- Management-level supervision for climate change issues by the ESG Committee chaired by CEO</li> <li>- Management of progress toward environmental goals, and deliberation on investment decisions related to decarbonization</li> <li>- Promotion of the Group’s climate change initiatives under the leadership of the ESG Promotion Division based on the decisions made by the ESG Committee</li> </ul>
Progress in FY 2020	<ul style="list-style-type: none"> <li>- Deliberation and decision on climate change-related matters by the ESG Committee (held four times) [see page 70]</li> <li>- Climate change risks and opportunities in line with TCFD</li> <li>- Progress on decarbonization activities</li> <li>- Enhancement of renewable energy initiatives to accelerate decarbonization activities</li> <li>- Introduction of an ESG-linked executive remuneration system for executives and management that varies depending on the degree of achievement of the “GHG reduction target”</li> </ul>

<Strategy: the actual and potential impacts of climate-related risks and opportunities on the organization’s businesses, strategy, and financial planning>

Action	<ul style="list-style-type: none"> <li>- Formulation of a Mid-Term Management Plan which prioritizes contribution to SDGs</li> <li>- Setting of “Realization of zero-carbon society” as one of the important social issues (materiality)</li> <li>- Identification of risks and opportunities through scenario analysis at ESG Committee meetings</li> </ul>
Progress in FY 2020	<ul style="list-style-type: none"> <li>- Examination of risks and responses related to natural disasters at a cross-sectoral workshop,</li> <li>- Progress in activities for decarbonization and customer appeal</li> <li>- Conclusion of “Sustainability Linked Loans” agreement with MUFG Bank, Ltd. with the aim of promoting decarbonization activities</li> </ul>

- (1) Plainly describing the environmental goals and concepts for decarbonization
- (2) Describing specific contents for each disclosure item of TCFD Recommendations

# Ricoh Company, Ltd. (2/3) Annual Securities Report (FY ended March 31, 2021) pp. 23-24

**[Management policies, management environments and issues to be addressed]**

\* Excerpt

**Implementation and results of climate change scenario analysis**

We continued to conduct scenario analysis as we did in the previous year. The business risks and opportunities for infectious diseases related with climate change have been added to the scenario analysis assessment, especially since COVID-19 is having an enormous impact globally. In assessing the business risks, we assumed that epidemics of mosquito-borne diseases have occurred every 10 years in the past, and that an epidemic would occur in Asia, where Ricoh’s sales are the largest among the three regions, where many infections have occurred, such as Africa, Asia, and Latin America. Because our production of BCP was functioning even during the COVID-19 epidemic, we estimated the financial impact based on the amount of lost sales opportunities because of COVID-19.

In addition, a cross-organizational workshop was held to discuss the risks and possible responses to the increasing number of natural disasters that occur every year, and to examine the risks and countermeasures for our supply chain, including our own sites.

As a result of scenario analysis, we see that global climate change has progressed, abnormal weather has become frequent and severe, and it has become an urgent issue for Ricoh such that a large business impact may occur if we fail to take measures. Although the risk of infectious diseases related to climate change is not urgent, once it does occur, it will cause a large financial loss, so it was confirmed that it is necessary to continued strengthening BCP.

Meanwhile, active response to climate change mitigation and adaptation will provide opportunities in the printing business to provide products and solutions that support customers’ decarbonization by utilizing energy-saving and resource-saving technologies and services. We also reconfirmed that solutions against infectious diseases bring new value to new normal working styles and have great potential for business expansion and creation of new businesses in the environment and energy fields.

Based on the above results, we reviewed the environmental goals for 2030, and in April 2020, we set a new GHG reduction target in line with the SBT 1.5°C standard that requires a higher reduction rate. By developing measures based on the GHG emissions reduction roadmap to 2030, we are ready to respond without delay to a carbon tax and changes in consumer and investor behavior that will accompany an early transition to a zero-carbon society.

We will continue to promote our climate change initiatives by conducting scenario analysis periodically to identify and promptly address climate change risks and assess opportunities. We will also continue to discuss the theme with our stakeholders to improve our approach and information disclosure.

**Scenario analysis- Implemented scenarios**

When conducting the scenario analysis, we set two scenarios by referring to the United Nations Intergovernmental Panel on Climate Change (IPCC) and the International Energy Agency (IEA) as the impact on the Ricoh Group as of 2030.

In the Scenario 1, we mainly assumed transition risks toward a zero-carbon society, and in the Scenario 2, we mainly evaluated the physical risks due to climate change.

**(1) <Risk management: how the organization identifies, assesses, and manages climate-related risks>**

Action	The Risk Management Committee established to manage major focus managerial risks, which are risks that can significantly affect business performance categorized into two groups: strategic risks and operational risks
Progress in FY 2020	<ul style="list-style-type: none"> <li>- Documentation of initial response, reporting procedure, establishment and roles of each response division in the event of an emergency</li> <li>- Implementation of regular facilities inspections and disaster prevention training, etc.</li> <li>- Preparation of a BCP (business continuity plan) for each region and business, etc.</li> <li>- Flooding risk investigation for 19 key domestic sites</li> </ul>

**(2)**

Climate change risks and actions against them				
Impact on Ricoh Group		Financial impact	Urgency	Action
Carbon taxes and emissions trading systems applied to suppliers	- Carbon pricing (carbon tax / emissions trading) will be applied mainly to material suppliers with high GHG emissions, and the price will be passed on to raw materials, and procurement costs will increase.	Medium	Low	<ul style="list-style-type: none"> <li>- Reducing new resource inputs by utilization of recycled materials</li> <li>- Actively supporting suppliers’ decarbonization activities</li> </ul>
Response to accelerated transition to decarbonized society by consumers and investors	- Due to demand for achieving ahead of schedule the target of 1.5°C and achieving RE100, additional costs for implementing measures such as energy saving/renewable energy facility investment and switching to renewable energy are incurred.	Small	Medium	<ul style="list-style-type: none"> <li>- Active promotion of energy-savings and renewable energy initiatives</li> <li>- Financing by sustainability linked loans</li> </ul>
Rapid increase of natural disasters	- Due to climate change, extreme weather has become more severe, causing production stops and sales opportunity losses due to disruption of the supply chain, etc.	Medium	High	<ul style="list-style-type: none"> <li>- Disaster countermeasures at production sites</li> <li>- Formulation of BCPs for procurement/distribution systems</li> </ul>
Regional epidemics of infectious diseases	<ul style="list-style-type: none"> <li>- Impact on production plans due to parts supply disruption</li> <li>- Insufficient inventory due to lower operating rates at production sites</li> <li>- Decrease in sales opportunities due to difficulty of face-to-face business</li> </ul>	Medium	Low	<ul style="list-style-type: none"> <li>- IT-based operation and negotiation</li> <li>- Decentralization of production bases/automation of processes</li> <li>- Additional stock of parts and products</li> </ul>
Declining forest resources	- Forest damage such as caused by forest fires and increase of pests due to global warming results in deterioration of stable supply of paper raw materials and leads to a rise in paper procurement costs.	Small	Low	<ul style="list-style-type: none"> <li>- Using certified paper based on managed forest materials</li> <li>- Reducing base paper usage by Silicone-top Liner-less Label and rewritable paper</li> </ul>

**(1) Describing specific contents for each disclosure item of TCFD Recommendations**

**(2) Describing details of impacts of climate change risks on its own businesses, financial impacts, urgency and actions**

# Ricoh Company, Ltd. (3/3) Annual Securities Report (FY ended March 31, 2021) pp. 24-25

**(1) [[Management policies, management environments and issues to be addressed] \* Excerpt**

**Opportunities for climate change**

For Ricoh, which has practiced environmental management for many years, we recognize that climate change leads not only to business risks, but also to opportunities to increase corporate value as well as the product and service values we provide. These opportunities are providing products and solutions that support customers’ decarbonization and creating new businesses. At this point, they have already grown into businesses worth ¥1 trillion. We will continue to provide services and solutions that contribute to solving social and customer issues.

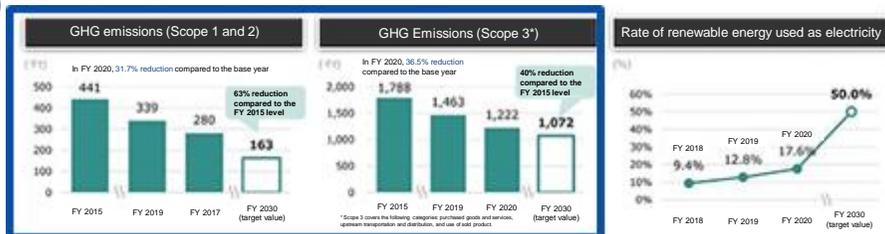
Impact on Ricoh Group	Financial effect in FY 2020
Expanding sales of services and solutions to support customers’ decarbonization efforts (Mitigation)	Sales of products contributing to society’s decarbonization: approx. ¥900 billion
Expanding sales of solutions for infections (new normal) (Adaptation)	Sales of solution packages for infectious disease reduction and decarbonization: approx. ¥74 billion
Expanding environment and energy businesses (energy creation / storage / conservation)	Sales in the products and parts recycling business: approx. ¥27 billion Sales in energy creation and energy saving businesses: approx. ¥23 billion
Creating and developing new businesses	Sales of eco-friendly heat-sensitive liner-less label, etc.

(Note) For the latest information of “Opportunities for climate change”, please refer to the information based on the TCFD framework going to be disclosed at the end of August 2021.  
[https://jp.ricoh.com/environment/management/tcfd/risk\\_opportunity.html](https://jp.ricoh.com/environment/management/tcfd/risk_opportunity.html)

**(2) <Metrics and targets: the metrics and targets used to assess and manage relevant climate-related risks and opportunities>**

In fiscal 2020, our total GHG emissions including direct emissions (Scope 1), indirect emissions (Scope 2), value chain emissions (Scope 3) and the renewable energy utilization rate are as follows. Our progress toward the target is on track and we will continue to actively promote decarbonization activities to achieve our Environmental Goals which align with 1.5°C criteria.

**(3)**



- (1) Describing not only the risks but also the contents of opportunities and financial effects by climate change in details**
- (2) Describing specific contents for each disclosure item of TCFD Recommendations**
- (3) Plainly describing the status of progress of GHG emissions (Scope 1, 2, and 3)**

# Seiko Epson Corporation (1/2) Annual Securities Report (FY ended March 31, 2021) pp. 20-22

[Management policies, business environments and issues to be addressed] \* Excerpt (1) **b. Strategy**

(iv) Climate change initiatives and TCFD

Climate change is greatly impacting society and Epson sees it as a significant social problem to be worked on. The goal of the Paris Agreement is to achieve decarbonization and limit the increase in the global average temperature to well below 2°C, and work to limit it to 1.5°C, compared to pre-industrial levels. To achieve this, Epson is working to “reduce total emissions in line with the 1.5°C scenario” by 2030. Furthermore, Epson has revised “Environmental Vision 2050” in coordination with the announcement of “Epson 25 Renewed.” To become carbon negative and underground resource free by 2050, which is stated as our goal, we are working for decarbonization and to close the resource loop. We are also promoting the provision of products and services that reduce environmental impacts, and the development of environmental technologies.

Since Epson indicated its support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) in October 2019, it has disclosed information (on governance, strategy, risk management, and metrics and targets) based on the TCFD framework so as to enable good communication with shareholders, investors, and a broad spectrum of other stakeholders. Epson has decided to disclose the level of financial impact in 2021 in a quantitative manner for the first time.

Epson has determined that “achieving sustainability in a circular economy” and “advancing the frontiers of industry” are material matters in its value creation story. To achieve these, we will further reduce greenhouse gas (GHG) emissions by leveraging our “efficient, compact, and precision technologies” to drive innovation.

Epson identified and evaluated scenarios in the categories of “transition risk”, “physical risk”, and “opportunity” to evaluate the importance of climate-related risks and opportunities. Six risks and opportunities were singled out for evaluation. We evaluated the business impact and financial impact of each on the basis of the scenarios corresponding to temperature increase of 1.5°C presented by the Intergovernmental Panel on Climate Change (IPCC) and the International Energy Agency (IEA) as well as on the basis of internal and external information.

The results of the evaluation of climate-related risks and opportunities based on this scenario analysis are as follows:

(2) - Climate-related risks and opportunities in a 1.5°C scenario

Category	Evaluated items	Timing of manifestation	Business impacts	Financial impact
Transition risk	Paper demand	Short-term	<b>Impact</b> - We were unable to detect a strong relationship between climate change and the change in paper demand, but demand for printing and communication paper is assumed to be on a declining trend. Even if that shift to paperless advances further due to changes in trends due to COVID-19 (such as the contraction of office printing because of decentralization), we expect that the financial impact from the strengthening of products and services based on inkjet technology (reduction of printing costs, reduction of environmental impacts, increase of ease of printing, appeal using usefulness of paper information) will be limited.	Small
	(Initiatives in Environmental Vision 2050) - Decarbonization - Closed resource loop - Environmental technology development	Short-term	<b>Impact</b> - “Decarbonization” of products and services as well as the supply chain and advanced initiatives in “resource recycling” are needed to respond to “climate change” and “resource depletion”, which are social issues shared globally. - Scientific and specific solutions are necessary to develop environmental technologies linked with the rapid decrease of environmental impacts.  <b>Response to risks</b> - Decarbonization: Renewable energy use; Energy-saving facilities; Greenhouse gas removal; Supplier engagement; Carbon-free logistics - Closed resource loop: Effective use of resources; Minimize production losses; Extend product service lives - Environmental technology development: Dry fiber technology applications; Naturally derived (plastic-free) materials; Material recycling (metal, paper); CO2 absorption technology	Invest a total of approx. ¥100.0 billion by 2030

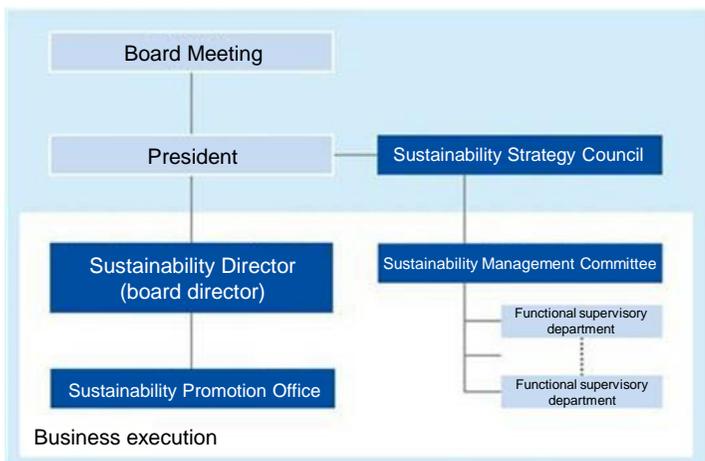
- (1) Describing specific contents for each disclosure item of TCFD Recommendations
- (2) Describing details of climate change risks, including timing of manifestation, impacts on its own business, and financial impact

(1) **a. Governance**

Important matters related to climate change are supervised by the board of directors, who receives reports at least once a year after deliberations at the “Sustainability Strategy Council”, which formulates medium- to long-term strategy for the Epson Group’s sustainability activities and carries out reviews of the status of implementation as the president’s advisory body.

In addition, Seiko Epson’s president and representative director, the individual who has the highest responsibility and authority for climate-related issues, delegates responsibility for climate-related issues to the Sustainability Director, who heads the Sustainability Promotion Office and manages and promotes climate change initiatives, including TCFD.

■ Executive organization



# TOYODA GOSEI Co., Ltd. (1/2) Annual Securities Report (FY ended March 31, 2021) pp. 15-16

**[Management policies, business environments and issues to be addressed] \* Excerpt**

(4) Climate change initiatives and responses to TCFD (responses to risks and opportunities)  
 Toyota Gosei announced its support for the Task Force on Climate-Related Financial Disclosures (TCFD) in May 2019, and held up the materiality (important issue) of creating a decarbonized society by reducing CO2 emissions as a measure to combat climate change.

Based on the concept of the TCFD, a scenario analysis was used to identify risks and opportunities in our business activities and we implemented activities integrated into our management strategy. We will enhance these efforts in the future, including verification of the effects on finances.

**(1) (i) Governance**

Toyota Gosei considers responding to climate change and other environmental problems to be an important management issue. “The TG 2050 Environmental Challenge”, our long-term environmental activities plan, was formulated by the Carbon Neutrality and Environmental Committee (formerly, Environmental Committee) and announced in February 2016. The Toyota Gosei Group is reinforcing its activities to achieve a sustainable society.

The Carbon Neutrality and Environmental Committee meets twice a year, with the company president serving as the chairperson. The committee discusses risks and opportunities related to climate change, including effects on our supply chain, and reflects these issues in our medium-and long-term business plans and corporate management. The results are regularly reported at the meeting of the Board of Directors and management meetings.

**(1) (ii) Strategy**

Toyota Gosei has been making efforts to reduce CO2 based on its “TG 2050 Environmental Challenge.” Heeding the heightening calls for action from society in recent years, we set our “Targets 50&50” in April 2021 to bring forward the timing at which we achieve zero CO2 emissions. After review, we set higher targets of a 50% reduction in CO2 emissions (compared with FY 2015) and a 50% renewable energy usage rate by 2030.

To achieve this, we considered the “4°C scenario (note 1)” and “2°C scenario (note 2)” announced by the Intergovernmental Panel on Climate Change (IPCC) and identified the following climate-related risks (physical risks and transition risks) and opportunities for our business activities, for which we are taking action.

(Note 1) 4°C scenario: the scenario in which the global average temperature rises about 4°C compared with pre-industrial revolution levels

(Note 2) 2°C scenario: the scenario in which the rise in the global average temperature at the end of 21<sup>st</sup> century is kept to less than 2°C compared with pre-industrial revolution levels

**(2) <Physical risks> Risks related to physical influences, such as disasters due to climate change**

	Matters that affect us	Risk	Opportunity	Response
Acute	- Large-scale disasters from abnormal weather	- Production difficulties due to river flooding, super typhoons, water shortages, etc.	- Stronger business continuity planning (BCP), leading to customer trust and increase in orders received	- Strengthened BCP resilience system - Ensuring emergency power sources (ensure backup power sources and utilize our own power generation equipment)
Chronic	- Rising temperatures - Changing precipitation and weather patterns	- Quality defects from insufficient product durability with warming temperatures	- Increasing added value with enhanced product durability, and increasing revenue	- Ensuring land for building and ensuring and improving building durability - Planning and developing products with superior durability, water resistance and heat resistance

**<Transition risks> Risks that will occur in the transition to a decarbonized society**

	Matters that affect us	Risk	Opportunity	Response
Policy and regulations	- Measures to promote electrification (ZEV (note 3), fuel economy, gasoline vehicle regulations) - Government carbon neutrality declaration (CP (note 4) regulations, expansion of subsidies)	- Acceleration of customer eco-car development - Declining sales of gasoline vehicle parts - Introduction of carbon tax, declining profits	- Developing products for ZEV (note 3) (EVs and FCEVs) and increasing sales - Developing products and manufacturing methods using government support (subsidies, etc.) and rising profits - Lighter weight for improved fuel efficiency (electricity consumption) - Increasing sales of lightweight plastic and rubber products from growing needs	- Developing products and parts for BEVs, FCEVs (hydrogen tanks, EV battery packs, etc.) - Plastic instead of metal, lighter weight plastic and rubber products, lower carbon - ZEB (note 5) of plants and offices with energy savings and energy creation
Markets	- CASE, MaaS market expansion - Energy-saving products, life solutions market expansion	- Declining sales of conventional products with changes in vehicle value and how they are used - Boycott of products with a large environmental impact	- Increasing sales of disinfection/antibacterial products with increasing car shares - Growing business, increasing profits with development of energy saving products	- Development of disinfection/antibacterial products - Development and commercialization of e-Rubber, GaNpower devices - Promoting use of nature-derived materials and improvement of bioplastic usage technology
Technology	- Energy conversion - Progress and spread of renewable energy technology - Spread of energy-saving technology	- Rising costs and financial burden in dealing with production technology for energy conversion - Late to spread technology and declining profits with carbon tax, etc. from failure to reduce CO <sub>2</sub>	- Energy savings in the manufacturing stage and rising profit from development of low-cost production - Establishment of environmentally-friendly production processes using renewable energy and energy-saving technology, and rising profits	- Promotion of plant energy optimization - Active introduction of renewable energy - Establishment of energy-saving production and processes with use of IoT - Promotion of decreased burden over product lifecycle - Hydrogen introduction and development of electricity storage parts
Reputation	- Changes in customer evaluations - Changes in reputation among investors	- Low environmental impact (decarbonization, etc.) has become a condition for getting product orders; orders are lost from not dealing with this	- Successful development of decarbonized products will increase advantage over competitors, grow orders	- Development and commercialization of carbon zero products (environmentally-friendly materials development, easy-disassembly product design)

(Note 3) ZEV: Zero Emission Vehicle. ZEVs include EVs and FCEVs that do not emit CO2 or other gases when driven.

(Note 4) CP: Carbon Pricing. CP is done with carbon taxes and emissions trading.

(Note 5) ZEB: Net Zero Energy Building. ZEBs are buildings that achieve zero annual primary energy balance with high-efficiency equipment and the introduction of renewable energy.

- (1) Describing specific contents for each disclosure item of TCFD Recommendations**
- (2) Plainly describing physical risks and transition risks, including the matters affecting them, risks, opportunities and responses**

# TOYODA GOSEI Co., Ltd. (2/2) Annual Securities Report (FY ended March 31, 2021) p.16

[Management policies, business environments and issues to be addressed] \* Excerpt

(1) (iii) Risk management

At Toyoda Gosei, the climate-related risks mentioned above (ii Strategy) are managed by the Carbon Neutrality and Environmental Committee, Compliance and Risk Management Committee, and Management System (ISO 14001). In the risk management process, risks are identified and evaluated and then ranked according to their frequency and impact. After this, measures such as avoidance, mitigation, transference, or retention are determined, and progress management is done by the committees and others. Regular reports on major risks are made to the Board of Directors.

(1) (iv) Metrics and targets

Among the environmental activities at Toyoda Gosei, we have set the target of zero CO<sub>2</sub> plant emissions by 2050 in “the TG 2050 Environmental Challenge”, our long-term targets. As “a 2030 milestone” for the medium term, we have also set the Targets 50&50, a 50% reduction in CO<sub>2</sub> emissions (compared with 2015 levels), and a 50% renewable energy usage rate. We are developing environmentally-friendly production processes and equipment and undertaking other CO<sub>2</sub> reduction activities across the company. We also formulate an “Environmental Action Plan” every five years and undertake activities that incorporate them into our company targets each year.

(2) <Toyoda Gosei’s medium-and long-term targets>

Efforts	Target year	Target value
7th Environmental Action Plan	2025	SCOPE1 + SCOPE2 (note 6) CO2 Emissions reduced 25% compared with FY 2015
2030 milestones (Targets 50&50)	2030	SCOPE1 + SCOPE2 CO2 emissions reduced 50% compared with FY 2015
TG2050 Environmental Challenge	2050	Zero SCOPE1 + SCOPE2 CO2 emissions Contribution to an environmental society with product technology

(Note 6) SCOPE1: CO2 emissions from use of fuel by business itself  
SCOPE2: CO2 emissions from use of electricity, etc. provided by other companies

- (1) Describing specific contents for each disclosure item of TCFD Recommendations
- (2) Describing the efforts to achieve medium-and long-term targets by explicitly indicating the target fiscal years and showing the target contents in details and quantitatively

## Asahi Kasei Corp. Annual Securities Report (FY ended March 31, 2021) p.16 and p.30

[Management policies, business environments and issues to be addressed] \* Excerpt

- (2) The Group-wide management policy, management strategy, etc.
  - I. Pursuing of sustainability (Medium-term management plan, “Cs+ for Tomorrow 2021”)
    - <Management policy and management strategy>
    - ii. Enhancing of sustainability management

Among our sustainability activities implemented in FY 2020, major activities are as follows.

◆ Activities for the realization of carbon-neutral and sustainable society

- Reduction of greenhouse gasses (GHGs)

In May 2021 the Group announced our goal of achieving carbon neutrality (net-zero carbon emissions) by 2050 to create a sustainable world. It covers direct GHG emissions from the Group’s business activities as indicated by Scope 1 (direct GHG emissions from the Group) and Scope 2 (indirect GHG emissions from use of electricity, heat, and steam supplied by other companies). To realize carbon neutrality, we will formulate a road map and accelerate initiatives to achieve our targets of energy consumption reduction, energy decarbonization, manufacturing process innovation, and the shift to high-value-added / low-carbon businesses. We have also set a target to reduce our GHG emissions by 30% or more by 2030 compared with FY 2013. As our specific initiatives in FY 2020, we have been undertaking conversion works for our independently owned coal-fired thermal power plants to switch fuel to liquefied natural gas (LNG) with less CO2 emission. We have been also undertaking renovation works to improve efficiency and ensure continued long-term utilization of our independently owned hydroelectric power plants. Furthermore, by installing the Group’s photovoltaic power generation facilities on the roof of “Hebel Maison™” apartment buildings to supply the generated electric power to our Kawasaki Works, we have started the initiative to promote utilization of renewable energy. To accelerate GHG emission reduction, we have introduced internal carbon pricing in the review of profitability of capital investments under our business management system.

We have also accelerating the review of commercialization towards realization of carbon neutrality. In our hydrogen-related projects, we have started hydrogen supply (manufacturing of green hydrogen) with our world’s largest-scale alkaline water electrolysis system at Fukushima Hydrogen Energy Research Field” in Namie-machi, Futaba-gun, Fukushima Prefecture, and in April 2021, we also launched a green solution project to strengthen our business development. In addition, we have been making efforts to develop CO2 capture system, next-generation CO2 chemistry technology, and other technologies and products that contribute to the environment.

On the other hand, we also considers our contribution to the global GHG emission reduction with the Group’s existing products and services as our important theme. With the advice from third party experts, we have validated the assessed effects of products and services that can be expected to reduce GHG emissions. We designate such validated products and services as “environmental contribution products” to be widely disseminated. In FY 2020, we added seven businesses/products and selected thirteen businesses/products as “environmental contribution products” cumulatively.

The results of our review based on the “TCFD Recommendations” which requires analysis and disclosure of impacts of climate change on the finance of a company are disclosed in the “Material” segment and the “Homes” segment. Please refer to “2. Business-related risks (3) The Group-wide risks

(i) Risks of climate change” for details.

(2) (3) The Group-wide risks

[Business-related risks] \* Excerpt

(i) Risks of climate change

Asahi Kasei Group regards changes that occur in relation with climate change as an important risk factor. In May 2019, we supported the TCFD (Task Force on Climate-related Financial Disclosures) Recommendations and conducted analysis and disclosure of risks of climate change. In particular, we analyzed and examined the countermeasures against the impacts of climate change on the businesses of “Material” segment and “Homes” segment based on two scenarios, because a relatively big impact of climate change is estimated for these businesses and also disclosure of these segments is recommended by the TCFD Recommendations.

To respond to these risks, we will strive to suppress the impact through utilization of renewable energy, reduction of energy consumption, application of new industrial process, transformation of business portfolio, etc. In a scenario to control the global average temperature rise to below +2°C (mainly transition risks) compared with pre-industrial revolution levels, the increased costs due to enhanced regulations towards decarbonization of society can affect the business performance (example: when assuming the carbon tax standard based on the International Energy Agency (IEA)’s scenario, the increased manufacturing costs would be up to 60 billion yen per year (greenhouse gas (GHG) emissions of approx. 4 million tons in FY 2019 × carbon taxes of \$140 per ton)). Also, we analyze that the dissemination of eco-friendly cars such as electric vehicles that are necessary in the decarbonized society as well as the reduction of GHG emissions from houses and other buildings are opportunities for business development and expansion for our high-performance materials and house businesses. On the other hand, in a scenario where global warming is not sufficiently prevented and the global average temperature rises by + 4°C (mainly physical risks) compared with the pre-industrial revolution levels, factories suffering from devastating storm and flood damage and resulting production suspension, raw material supply chain disruption, and deterioration of labor environment and productivity in outdoor work at house construction field, etc. are expected, which can affect our business performance. To respond to these risks, we will strive to suppress the impact through continuous review on Business Continuity Plan (BCP), improvement of resilience to natural disasters, promotion of industrialization of house construction, utilization of digital technologies, etc. We also analyze that these are opportunities for business development and expansion for high-toughness house businesses and extremely-high-insulation material businesses.

As mentioned above, climate change is estimated to have no small negative impact on the Group’s management; however, we can handle the risks by our diverse business portfolio and we analyze that the Group-wide financial negative risks are limited. On the other hand, we recognize that our diverse technologies and businesses have a potential to obtain new business opportunities related to climate change. Going forward, we will enrich our review contents by expanding the scope of analysis to “Healthcare” segment and disclose the results.

- (1) Describing details of initiatives to reduce greenhouse gases
- (2) Describing the important segments, including the analysis results and responses in details for each scenario

[Management policies, business environments and issues to be addressed] \* Excerpt

(7) Resolving issues faced by local communities and society

<Climate change initiatives>

- Among environmental issues, the Group recognizes climate change as one of the material issues that could considerably impact customers' lives and health, corporate activities, sustainability of local communities and society, as well as for our global development of life insurance and asset management businesses.

- In the fiscal year ended March 2021, Dai-ichi Life joined the “Net-Zero Asset Owner Alliance\*1” as the first Japanese entity, thereby announcing net zero greenhouse gas emissions in the investment portfolio up to 2050, and we set forth the goal of carrying out a 25% reduction (over the end of March 2020) in CO2 emissions in our listed shares, bonds and real estate portfolios by March 2025. Also, in addition to achieving of “RE100 (Renewable Energy 100%”\*2 by the fiscal year ending March 2024, we decided a policy to aim for 100% renewable energy usage especially for real estate for investments within FY 2021.

\*1 Asset owner initiative to make commitments to carbon-neutral (net zero greenhouse gas emissions) investment portfolio up to 2050, to achieve the target stated in the Paris Agreement (which calls for limiting the rise in average global temperature to under 1.5°C)

\*2 Collaboration initiative to make commitments to 100% renewable energy as the electricity used in businesses

<Climate change initiatives over the years>

	Up to FY 2018	FY 2019	FY 2020
Initiatives as an operating company	Establishing targets for CO2 emission reduction / Examining impact on insurance benefit and claims payments		
		Switching the electricity used in the head office to renewable energy	
Initiatives as an institutional investor	Investments and loans to renewable energy, green bonds, transition finance, etc.		
	Ban on investments and loans to coal-fired power generation and coal mining businesses		
	Incorporation of ESG elements into the primary theme for engagement activities for investee companies		
		Incorporation of climate change risk into corporate evaluation process	
			Joined the Net-Zero Asset Owner Alliance

- Plainly describing the climate change initiatives as an institutional investor

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[Management policies, business environments and issues to be addressed] \* Excerpt

(2)

- Measures to address issues responding to stakeholder expectations

Through the achievement of FY 2020 goals for issues responding to stakeholder expectations in the fields of human resources management, manufacturing and the environment, and risk management, we have built a relationship of trust with society and fulfilled our corporate responsibility to society. At the same time, these activities have strengthened out business foundation in our medium-term business plan.

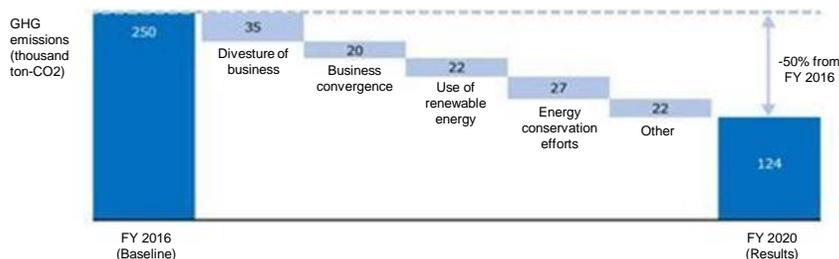
For example, we have implemented initiatives in the field of environment for “reduction of greenhouse gas emissions” to address social issues of climate change. In July 2018, we declared “OMRON Carbon Zero”, aiming for the company to emit zero greenhouse gas emissions in 2050 (Scopes 1 and 2 (note)), and we are steadily reducing emissions each year to achieve this goal. In fiscal 2020, we achieved a 50% reduction compared to fiscal 2016, substantially exceeding our initial target of a 4% reduction. Major reasons for the reduction are full-scale operation of solar power generation systems installed in 2019, procuring of electricity from renewable energy sources, reducing energy consumption 50% or over in the new building of Yasu Office in Shiga Prefecture, and other energy-saving measures.

<Sustainability targets for reduction of GHG emissions and results>

The Group’s initiatives	Promotion of Green OMRON 2020 - Reduction of GHG emissions by improving efficiency in electricity use and introducing renewable energy - Provision of products and services that contribute to clean energy dissemination
FY 2020 targets	- Total GHG emissions: 4% reduction (vs. FY 2016) - Environmental contribution > CO2 emissions from production sites
FY 2020 results	- Total GHG emissions (note): 50% reduction (vs. FY 2016) - Environmental contribution (note): 826,000t-CO2 > CO2 emissions from production sites: 106,000t-CO2

(Note) The following environmental items have obtained assurance and other appropriate certifications from an independent third party body, Bureau Veritas Japan Co., Ltd.:  
GHG emissions (assurance target item); and environmental contribution (review target item).

<Results of GHG emission reduction in FY 2020>



We also declared our support for the Taskforce on Climate-Related Financial Disclosures (TCFD) in February 2019. As the TCFD calls for disclosures of current and potential impacts, such as business-related risks and opportunities due to future climate change estimated through scenario analysis, we started scenario analysis for our energy solution business which operates within the business domain of Social Solutions. We adopted the two scenarios with different estimations for the rise in temperature in 2020, quantitatively identified transition risks and physical risks for each scenario and examined the business development images. By quantitatively identifying the estimated business impacts thereby, we also examined the measures to prepare for and mitigate the identified risks and the measures to adapt to the business opportunities. From FY 2021 onward, we will position resolving of climate change issues as an important issue in the next long-term vision and set forth new reduction targets including our value chain (Scope 3 (note)), and furthermore, we will advance concrete measures by identifying risks and opportunities in our major businesses through scenario analysis, to contribute to the realization of decarbonized society.

(Notes) Scope 1: Direct GHG emissions from the use of fuels in the company

Scope 2: Indirect GHG emissions from the use of electricity and heat purchased by the company

Scope 3: GHG emissions from the value chain of the company

- (1) Plainly describing the GHG emission reduction results by using figures and tables
- (2) Quantitatively describing the sustainability targets and results for reduction of GHG emissions