DOWA Group's Action on Climate Change

# TCFD Report

In February 2022, we decided to declare within and outside the DOWA Group our action on climate change by officially sympathizing with the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). The disclosure of information in line with the framework of the TCFD Recommendations should deepen an understanding about the DOWA Group's activities among our stakeholders as we join forces with them in encountering the big challenge of climate change.

May 23, 2022 DOWA HOLDINGS CO., LTD.

# DOWA Group and Climate Change

# (1) About the DOWA Group

The DOWA Group has been committed to the development of materials and services helpful for solving issues concerning resources and the environment, based on the technologies and experience in mining and smelting it has accumulated since its founding in 1884. In this way, the Group contributes to the development of a sustainable society.

# Recycling-oriented business model with a focus on metals

The DOWA Group operates an original recyclingoriented business model combining five different businesses ranging from metal production to the manufacturing of high value-added products, waste treatment and metal recycling.

For the Environmental Management & Recycling Business, we detoxify waste, sort and recover metals from used products and utilize them as materials for smelting. For the Nonferrous Metals Business, we extract useful metals from many different materials for recycling in addition to ores which are natural resources. These types of metal undergo high purification, plate processing, surface treatment and many other methods of processing performed by the Electronic Materials Business, Metal Processing Business and Heat Treatment Business, to obtain the added value of functionality before being incorporated into final products such as automobiles and electronic devices. We achieve a resource recycling network in which the products purchased by consumers from manufacturers are subsequently treated as used products and the metals go back to the Environmental Management & Recycling Business for recovery.

▶ The five businesses and our recycling-oriented business model

# **DOWA ECO-SYSTEM** CO., LTD.

- Waste Treatment OSoil Remediation
- Recycling Southeast Asia

#### & MINING DOWA ELECTRONICS CO., LTD. MATERIALS Precious Metals and CO., LTD.

- Semiconductors Platinum Group Metals Smelting

  Zinc Smelting Electronic Materials
- Advanced Fine Resource Development Materials and Raw Material

### DOWA METRALTECH CO., LTD.

- Ocopper Rolled
- Electroplating Metal-Ceramics Substrates

# **DOWA THERMOTECH**

- OHeat Treatment
- Industrial Furnaces



The functions of the mining, recycling, and smelting complex enable efficient metal recovery.

We have combined the waste management of our Environmental Management & Recycling Business with the highly efficient metal recovery technology of our Nonferrous Metals Business to form a smelting and recycling complex. Using a variety of our processes, we recycle many types of metals from materials that are no longer of use to society. Also, non-recyclable materials are incinerated, sent to a landfill or otherwise treated in an equivalent manner to curb their environmental impact.

Development and manufacturing of high value-added

Electronic Materials Business, Metal Processing Business and Heat Treatment Business develop and manufacture high added-value materials mainly made from metals. We offer many large-share products and services in the markets with rapid technological innovation, such as automobiles, smartphones and solar panels, by leveraging our abundant knowledge and technologies in areas such as semiconductors, electrical conducting materials, copper rolled products and surface heat treatment.

# (2) Approach to sustainability

Based on our Mission: The reason for existence of the DOWA Group, we engage in business activities to help make the society sustainable. We also set the Vision The vision of the DOWA Group (our goal in 2030) based on a medium- and long-term perspective, with the aim of continuing to meet society's expectations for business enterprises.

In February 2022, our CSR policy was reviewed and renamed the Sustainability Basic Policy and was defined as a priority ESG policy with the aim of reinforcing our existing sustainability activities.

## About climate change

Climate change is a serious social issue and must be dealt with from a global perspective. Moves toward realizing a carbon-free society are expanding. To date, the DOWA Group has been committed to reducing greenhouse gas (GHG) emissions and has pursued the creation of new business opportunities by increasing products and services to help reduce GHG emissions. Given the immediate issue of an increase in global warming, however, we must step up our current initiatives. Based on this understanding, in August 2021, the DOWA Group's Climate Change Policy and Long-Term Targets were defined as shown at right. Under the Policy, the DOWA Group advances initiatives for a decarbonized society, aiming to achieve carbon neutrality by 2050.

# Mission The reason for existence of the DOWA Group

Contribute to creating an affluent, recycling-oriented society through our business activities worldwide.

#### Vision The vision of the DOWA Group (our goal in 2030)

Contribute continuously to building a sustainable future through our core business, the promotion of resource recycling, and the provision of excellent materials and technologies.

## **Sustainability Basic Policy**

DOWA Group will strike a balance between enhancement of corporate value and contribution to building a sustainable society by continuing to promote business activities that help to solve social issues in an effort to realize our corporate mission and vision.

#### ▶ DOWA Group's Climate Change Policy and Long-Term Targets

# **Climate Change Policy**

DOWA Group positions the measures against climate change as an important management issue and will work to reduce greenhouse gas emissions.

It will also contribute to the realization of a carbon-free society through various businesses, leading to continued growth of the group.



# **Long-Term Targets**

DOWA Group will aim to achieve carbon neutral status by 2050.

# (3) Social issues the DOWA Group should contribute to solving (material issues)

Society faces many issues. Stakeholders strongly expect a business enterprise to take appropriate action on these issues. The disclosure of information about initiatives on such issues is increasingly taking on importance, as represented by facts such as the penetration of SDGs and expansion of ESG investment. Considering changes in the business environment, the DOWA Group chose nine themes in 2022, as shown at right. Representing the issues that we should help to solve, the themes were approved by the Board of Directors before being defined as the DOWA Group's material issues. This positioned our action toward climate change once again as one of our important management issues.

## Choosing material issues

The DOWA Group chose social issues that the DOWA Group should contribute to solving based on two different perspectives: the expectations and demands of stakeholders and the importance for the DOWA Group. They were then positioned as management issues that are referred to as the DOWA Group's material issues. We advance initiatives for solving them.

▶ DOWA Group's material issues and Midterm plan



# Midterm Plan 2024 (FY2022 to FY2024)

Evolution of recycling-oriented
business model
(Seizing opportunities)

Integrated management

Strengthening sustainability
management

Our basic strategy under the Midterm Plan 2024 is to work on initiatives to acquire opportunities by evolving the recycling-oriented business model and reduce risks by strengthening sustainability management, so as to solve the DOWA Group's material issues.

(Risk mitigation)

DOWA Group Midterm Plan 2024: https://ir.dowa.co.jp/ja/ir/strategy.html

# (4) Status of GHG emissions and initiatives

The DOWA Group domestically emitted nearly 1.627 million t-CO<sub>2</sub> GHG in FY2020. The figure has decreased 2-5 % YOY for the past five consecutive years. By source of emissions, waste is the most common and accounts for nearly 43%, followed by electric power at 38% and fossil fuel at 19%. Emissions from the DOWA Group characteristically include a large volume of CO<sub>2</sub> generated from waste incineration and metal smelting processes. Much of the waste accepted by the DOWA Group consists of acid, alkaline and other hazardous and/or substances that are difficult to recycle. Incinerating such waste helps to ensure public health and safety and preserve water, soil and other parts of the environment. Using the heat generated from this incineration to destroy CFC for use in household appliances and vehicles and to generate power contributes to curbing global warming. The DOWA Group will seek to achieve compatibility between measures against climate change and environmental conservation by continuing initiatives for energy saving and streamlining heat utilization and by pursuing R&D of new sources of energy and waste treatment methods.

At the same time, the DOWA Group offers many products and services to contribute to carbon reduction through a supply chain, such as silver powder which is indispensable for renewable energy and metal materials for fuel cells and EVs. We will seek to expand the supply of these products and services, develop technologies and create new businesses in a continued effort to address climate change issues.

#### Status of GHG emissions



#### Our efforts

# **Energy related**

#### Hydroelectric power generation



Headquartered in Akita prefecture, Kosaka Smelting & Refining started operating the second hydraulic power station in Japan in 1897 for use in mine development. Subsequently, the company expanded its operations and continued to add and improve equipment. Today, it has six hydraulic power stations in Akita. Currently, the equipment of these stations are being repaired and replaced in an effort to maintain and increase power generation. In FY2020, the hydraulic power stations generated nearly 48 GWh of electric power and serve as important power sources to meet our energy needs.

#### Waste heat power generation



The DOWA Group generates power from waste heat at six offices, including five in Japan and one overseas. Waste heat power generation involves the use of heat generated from sources such as waste incineration and waste heat from a furnace. High-temperature, highpressure vapor is used to turn the turbine and generate power. Wastebased power generation utilizes energy from waste and does not necessitate fossil fuel. This leads to efficient utilization of energy. In FY2020, we generated nearly 80 GWh of electric power from waste heat and contributed to a reduction in fossil fuel consumption.

# Products and services

#### Silver powder for solar panels



Silver has low electric resistance and is also resistant to oxidizing. For this reason, it excels in use for electrodes. Our silver powder has established the world's top share in electrode materials for monocrystal and polycrystal, silicon-type solar batteries which account for a large part of photovoltaic power generation. Fine silver powder is used for electrodes. For different applications, we make silver powder available in many different shapes and consistently supply high-quality silver powder.

#### Fluorocarbon treatment



HCFC. HFC and other fluorocarbons are used in refrigerants for freezer refrigerators, airconditioners and other appliances. The fluorocarbons must be treated properly as they exert greenhouse effects that are hundreds to more than ten thousand times greater than those of CO2. Our three local offices, including those in Akita. Chiba and Okavama, use heat from waste incineration to thermally decompose fluorocarbons. Using waste heat removes the need to invest in new energy. It helps to reduce GHG emissions and curb global warming.

# 2. Information disclosure based on the TCFD recommendations

In May 2021, the DOWA Group set up the Climate Change Committee and has pushed forward with climate change initiatives throughout the Group, repeating discussion of our actions in line with the TCFD recommendations. To further accelerate climate change initiatives, in February 2022, we expressed our support for the TCFD recommendations through a resolution by the Board of Directors.

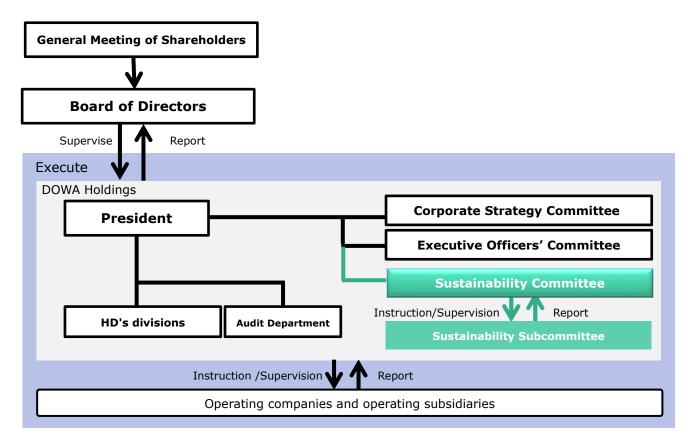
# (1) Governance

The DOWA Group has established a structure for the Board of Directors to properly supervise important sustainability-related issues such as climate change.

# Sustainability promotion structure

The DOWA Group regards climate change as an important issue for its business management and the Group's Sustainability Committee deliberates on the management of risks and opportunities relating to climate change issues. Important matters concerning managerial risks and opportunities are brought and reported to the Board of Directors. The Sustainability Committee is chaired by president and, in principle, meets biannually.

Upon receiving an agenda or report by the Committee, the Board of Directors shares issues involving climate change-related risks and opportunities and holds discussions for goal management and problem solving.



# • [Sustainability Committee] Chairperson: President and Representative Director Meeting: Biannual

The Committee deliberates on important policies and measures related to sustainability, such as climate change initiatives, the reinforcement of organizational strength and DX and the progress of such policies and measures.

• [Sustainability Subcommittee] Chairperson: Officer in charge of corporate strategy Meeting: Monthly

With the aim of promoting sustainability throughout the Group, the Sustainability Subcommittee was set up under the aegis of the Sustainability Committee and, in cooperation with the relevant departments, discusses nine material issues, including climate change.

# (2) Strategies

In FY2021, the Climate Change Committee performed a scenario analysis and sorted business risks and opportunities resulting from climate change.

#### About scenario analysis

Since predicting the future entails considerable uncertainty and is hard to analyze, we referred to multiple scenarios for discussion. The public opinion that any action based on the under 2 degrees C scenario is insufficient is becoming internationally entrenched and this may become a benchmark for the pursuit of achieving carbon neutrality by 2050, a target set by DOWA. For this reason, our analysis was performed in view of the 1.5 degree C scenario. Meanwhile, actions toward the 1.5 degree C scenario will boost awareness about the risks of transition but dilute awareness about physical risks. For this reason, we assumed a business environment under the 4 degrees C scenario which is closer to what would happen if current economic activities continued.

We also identified, analyzed and evaluated risks and opportunities relating to climate change on short-term (up to 2025), mid-term (up to 2030) and long-term (up to 2050) bases.

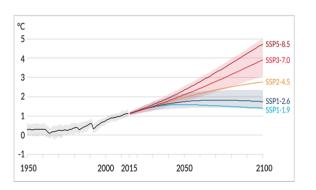
# Scope of analysis

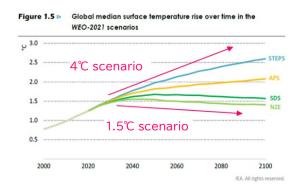
The scenario analysis in the first fiscal year, FY2021, focused on our domestic operations which account for more than 95% of the total GHG emissions of the DOWA Group.

# We referred to the following scenarios:

Scenario	Outline	Key references		
	Outline	IEA*	IPCC	
<b>1.5℃</b>	An international opinion toward achieving carbon neutrality by 2050 is formed.	NZE	SSP1-1.9	
2.0℃	Target on which a minimum international agreement (the Paris Agreement) has been obtained	SDS	SSP1-2.0	
2.0 C	Target calculated on the basis of immediate GHG reduction targets in different countries	APS	SSP2-4.5	
4.0℃	Priority is given to economic growth and the temperature rise and its impacts keep worsening.	STEPS	SSP2-4.5 SSP3-7.0	

<sup>\*</sup>A group of WEO (World Energy Outlook) 2021 scenarios of IEA (International Energy Agency)
STEPS (Stated Policies Scenario), APS (Announced Pledges Scenario), SDS (Sustainable Development Scenario), NZE (Net Zero Emissions by 2050 Scenario)





Left figure IPCC Working Group I Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change : Summary for Policymakers (Sixth Assessment Report) P.22

https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC AR6 WGI SPM final.pdf

Right figure IEA World Energy Outlook 2021 Scenario trajectories and temperature outcomes

https://www.iea.org/reports/world-energy-outlook-2021/scenario-trajectories-and-temperature-outcomes

# Scenario analysis and evaluation of risks and opportunities

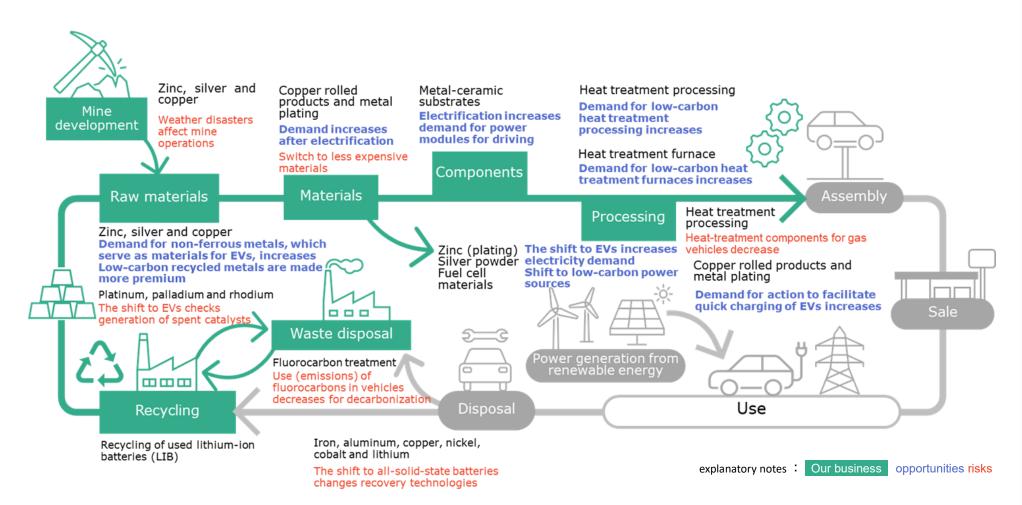
Scope of application: The DOWA Group's domestic operations

(the green columns represent the time of occurrence and degree of an impact on short, mid and long term bases)

	Reference						Short term	Medium term	Long term
Scenario	Scenario	Outline	Our understanding	Risks, op	portunities	and prediction of business environment in the future	~2025	~2030	~2050
		To date, many countries have	→ Based on the understanding that the introduction of	that the introduction of 1. Strengthened regulations and systems		ations and systems			
		assumed the under 2 degrees C scenario in formulating their GHG reduction targets. But they are not enough to check global warming.  Ensuring an average temperature rise below 1.5 degree C in 2100 urgently requires policies for making society sustainable through measures such as encouraging changes in market practices and consumers' taste, and tightening regulations for reducing GHG emissions.  Technological innovation, the shift to clean energy and other measures for the mitigation of and adaptation to climate change will necessitate greater public-private cooperation and communication with the financial markets.  Developed nations have another important commitment of helping emerging nations transition into a decarbonized society.	carbon pricing is effective in reducing GHG emissions, reflecting the costs for GHG emissions in corporate value helps to encourage efforts by business operators.  During the process of transitioning into a decarbonized society, we will simultaneously improve both the tangible (equipment investment) and intangible (process improvement) aspects of	[Risks] Carbon pricing	Carbon taxes and emission s trading	Full-scale introduction of carbon taxes and emissions trading would significantly add to the direct and indirect financial impact. Institutional arrangements and other related procedures are expected to take considerable time and their impact will be manifest from around the mid-2020s. From 2031, moves toward achieving carbon neutrality by 2050 will intensify and the influence of carbon pricing will expand even more.			
			energy saving in an effort to reduce GHG emissions.	2. Energy-					
	[IEA] NZE, 1.5 degree		<ul> <li>→ Public and private technological research will progress and encompass the spread of renewable energy, acceleration of use of non-fossil energy and utilization and recovery of CO₂ among others.</li> <li>→ Globally, developed nations are expected to support emerging nations in achieving a decarbonized society. Besides technological</li> </ul>	[Risks and opportuni ties] Efficient use of energy	Reinforcem ent of energy saving and introductio n of high- efficiency equipment	As we seek to achieve the government target for 2030 GHG emissions reduction, energy saving targets will be raised. A review of both the tangible and intangible aspects of efforts for GHG emissions reduction will be necessary and new capital investment and other financial burdens will accrue. Meanwhile, the development of energy saving-related products and services expands our business opportunities.			
1.5 °C	C special report		support, we also assume contributions to environmental maintenance overseas, among other initiatives.  While social changes represented by concepts such as the green economy, circular economy and	[Risks and opportuni ties]	Non- fossil fuel energy	Amid the move toward decarbonization, a rise in prices of electric power which involves a low CO <sub>2</sub> emission coefficient is expected. This leads to an increase in costs. Moreover, the needs for products and services using fossil fuel energy should decrease.		ш	
	SSP 1 -1.9		sharing economy lead to decrease in production, consumption and waste disposal, new products and services contributing to GHG reductions will emerge.  With progress in electrification for decarbonization, demand for non-ferrous metals will rise.	Energy conversio n	Electricit y from renewabl e energy sources	Since the introduction of renewable energy necessitates technological advances and infrastructure development, we expect the spread of renewable energy to get underway in the latter half of the 2020s. Until that time, the needs for electricity from renewable energy will increase and so will procurement prices. Meanwhile, the markets of metallic materials and battery materials for renewable energy will expand.			
			<ul> <li>At the same time, a rapid change in the market can distort the demand and supply of resources and create instability in procurement (e.g. structural changes in the supply chain).</li> <li>The sophistication of information disclosure and the establishment of related laws will advance, as can be seen in the need to address requests from TCFD. Business enterprises, products and services will be selected based on how they respond to these issues.</li> </ul>	3. Stakeho	older related	l e e e e e e e e e e e e e e e e e e e			
				[Risks and opportuni ties]	Shareholders and financial institutions	Establishment of the law on information disclosure and facilitation of ESG investments and loans will change the costs for funding depending on actions toward decarbonization.			
				Initiatives for decarboni zation	Customers	Moves towards decarbonization intensifies and also encompasses the supply chain. Our response to this trend will influence transaction conditions. We will also shoulder more expenses for the purchase of credits, etc. for decarbonization.			
		<ul> <li>Tighter regulations, changes in the market, technological innovation and</li> </ul>	The facilities impacted by climate change will need to be more resilient and the number of subscribers	4. Disaste	related				
	(ic.)	other actions for the transition to a decarbonized society will be accompanied by a minor financial impact. However, global warming will progress and the likelihood of the occurrence of physical risks will increase.  Natural disasters will grow increasingly severe. With ever greater frequency, we will encounter situations such as having no choice but to discontinue our business activities due to torrential rain, heavy rain or storms directly damaging our facilities and supply chain.  Over the medium and long terms, a rise in sea level and other phenomena will make coastal inundations more frequent.  Rising temperatures will lead to catastrophes such as the prevalence	ansition to a will be nor financial warming will be nor financial warming will be nood of the nood of the nor firsts will a risks will will grow will grow will encounter no conditions. This, combined with a social context characterized by worsening labor productivity and a decrease in the working population, will make it more difficult to secure human resources.  New business apportunities will be created from, for example, disaster response (e.g. supplementation of lifeline and BCP).  The expansion of natural disasters poses the problem of having to handle ever-increasing disaster waste.  Decarbonization and other actions for sustainability should be implemented on an individual basis. But taking action against climate change and improving our information disclosure will help us gain recognition among stakeholders as a company with good risk management.	Acute	Torrenti al rains	Torrential rains, river floods and similar disasters increase the frequency of damage to factory facilities.			
4℃	[IEA] STEP 4°C [IPCC] SSP2-4.5 SSP3-7.0				Temper ature rise	A rise in temperature changes materials and causes health problems such as heatstroke and contagious diseases.			
				Chronic	Sea level rise	A rise in sea level makes our seaside sites susceptible to high waves and tsunamis.			
		of heatstroke and the occurrence of unprecedented contagious diseases.							

# **Noteworthy market (Automobile)**

 Value chain of automobiles and our business We identified an extensive array of possible impacts of climate change on the DOWA Group and focused on the automotive market, which would be particularly susceptible. From the perspective of a value chain, we analyzed changes in the automotive market resulting from the growing shift to EVs and identified the opportunities and risks for our business operations as shown below.



# Refinement of risk and opportunity analysis and related measures

#### Midterm Plan 2024

Having started in FY2022, the Midterm Plan 2024 is aimed at enhancing our economic and social value simultaneously. To enhance our social value, we create a midterm plan for each of the social issues the DOWA Group should contribute to solving (p.4) and advance our sustainability initiatives in pursuit of our Vision The vision of the DOWA Group (our goal in 2030). For climate change, we have five key measures in accordance with the Climate Change Policy (p.3) published in August 2021. In terms of business operations, we are committed to climate change initiatives that leverage the characteristics of our business, such as building a sustainable business model to achieve compatibility between resource recycling and decarbonization, with consideration of analysis of TCFD-related risks and opportunities.

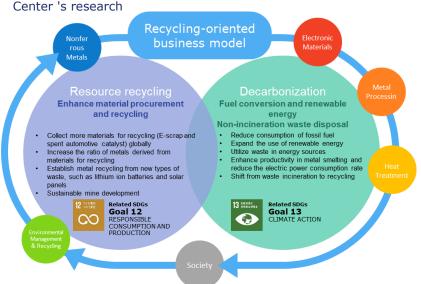
# Industry-academia collaboration: Cocreation Research Center

In April 2022, we set up the DOWA x Tohoku University Co-creation Research Center with the aim of bolstering our research activities with Tohoku University. The exceptional technological seeds at Tohoku University and the technology possessed by DOWA will be further integrated. The goal of this joint project is to create cutting edge technology that will contribute towards offering resource recycling and excellent materials and technology, while also responding to sustainability issues including carbon neutrality.

# ▶ Midterm Plan 2024Five key measures against climate change

Key measures	Initiatives
Creation of businesses in accordance with the market environment	Reinforce global resource recycling  Build a sustainable business model to achieve compatibility between resource recycling and decarbonization  Offer products and services that suit the market needs and contribute to decarbonization
Company-wide activities against climate change	Continue our company-wide efforts to curb climate change and start a working group for climate change initiatives  In-house workshops and provision of information
Reinforcement of our monitoring system	Streamline the calculation of greenhouse gas (GHG) emissions  Share our GHG emissions within the company with the use of a system and provide feedback  Build a mechanism for the calculation of a supply chain's GHG emissions (Scope 3)
Review of business continuity plans (BCPs)	Reinforce our preparedness against weather disaster, a physical risk, and include measures against weather disasters in our BCP Consider and discuss measures against weather disasters affecting the supply chain
Improvement in information disclosure	Encourage information disclosure based on the framework of the TCFD recommendations Regularly share information by using the integrated report and our website

► Example of our approach to solving climate change issues



#### ► Themes for Co-creation Research

In the first phase, from FY2022 to FY2024, we will explore the following themes and aim at launching a collaborative research project.



(1) Carbon neutral technology



(2) Innovative technology fusing AI, MI and IoT



(3) New materials for automobiles (EV), information communication, environment/energy and medical/healthcare

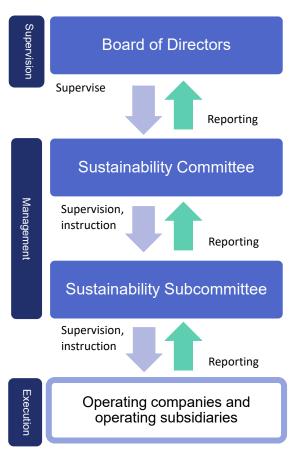
# (3) Risk management

The DOWA Group endeavors to enhance its risk management for the purpose of preventing crises that could have a material impact on business management and minimizing such crises if they occur.

Involving the entire DOWA Group, the Sustainability Subcommittee evaluates risks and other factors concerning sustainability-related matters, such as the risk of climate change that would significantly affect our business. The Sustainability Committee deliberates on matters that are more important in terms of business risks.

The climate change-related risks and opportunities evaluated and identified would be reported to the DOWA HOLDINGS Board of Directors if they are deemed by the Sustainability Committee as important. The DOWA HOLDINGS Board of Directors supervises company-wide, sustainability-related policies and goals, including measures against climate change and the organizations that manage and implement such policies and goals.

▶ Risk management system concerning sustainability issues



- The DOWA HOLDINGS Board of Directors supervises company-wide, sustainability-related policies and goals, including measures against climate change and the organizations that manage and implement such policies and goals.
- Being on the executives' side of DOWA HOLDINGS, the Sustainability Committee evaluates the risks and opportunities that would significantly affect the DOWA Group's business strategies and deliberates on action policies and goals. Particularly important risks and opportunities are reported to the DOWA HOLDINGS' Board of Directors.
- ◆ The Sustainability Subcommittee regards climate change as an important issue and monitors the DOWA Group's action against climate change. Across the DOWA Group, we identify and evaluate risks and opportunities associated with climate change and discuss and make action policies, goals and measures. They are reported to the Sustainability Committee along with important risks and opportunities.
- The operating companies and operating subsidiaries reflect in their business plans the policies and goals discussed and approved by the Sustainability Committee or the Sustainability Subcommittee, and take action accordingly. Progress of the measures and their problems are reported to the Sustainability Subcommittee as we strive to continue improvements.

# (4) Metrics and targets

The DOWA Group seeks to achieve carbon neutrality by 2050. As a step toward that, we have intermediate targets to be achieved by FY2030. The intermediate targets are set as shown at right and our efforts proceed accordingly.

DOWA HOLDINGS will continue monitoring the status of GHG emissions and reductions, and may review these targets if it is considered necessary after taking into account various factors, such as socioeconomic circumstances and changes in Japanese and international political policies towards the realization of a carbon-free society.

To achieve its medium- and long-term targets, the DOWA Group will continue with efforts to reduce GHG emissions through initiatives such as process improvements to conserve more energy, fuel conversion and the utilization of renewable energy. To achieve carbon neutrality by 2050, we will keep working to create medium- and long-term roadmaps. Information on our efforts against climate change will be regularly disclosed on the Integrated Report and our website.

About the DOWA Group's sustainability-related activities

Integrated Report

https://ir.dowa.co.jp/en/ir/library/annual.html

Sustainability-related information

https://www.dowa.co.jp/en/csr/index.html

## 【Long-Term Targets】

DOWA Group will aim to achieve carbon neutral status by 2050.

## [FY2030 GHG Emissions Reduction Targets]

The DOWA Group aims to reduce its Scope 1 and 2 GHG emissions<sup>\*\*1</sup> in FY2030 compared with the FY2013 levels as a baseline as follows:

Note that these targets are set in accordance with the targets for each category in the Japanese Government's Plan for Global Warming Countermeasures<sup>\*2</sup>, which was formulated to reduce GHG emissions by 46% from FY2013 levels by FY2030.

Emoural Courses	CO <sub>2</sub> from electric power/fossil fuels used in manufacturing bases	At least 38% reduction (from the FY2013 level)		
Energy Sources	CO <sub>2</sub> from electric power/fossil fuels used in offices and other locations	At least 51% reduction (from the FY2013 level)		
Non-Energy Sources	CO <sub>2</sub> from waste	At least 15% reduction (from the FY2013 level)		

These targets include offsetting through the utilization of carbon credits and other means.

- %1 Scopes 1, 2 and 3 are the concepts from the corporate GHG emissions accounting and reporting standard stipulated in the GHG Protocol. Each scope is defined as follows:
  - Scope 1: Direct emissions from the reporting company itself
  - \*Scope 2: Indirect emissions associated with the use of electric power, heat, and other energy supplied by other companies
  - \*Scope 3: Indirect emissions other than Scopes 1 and 2 (emissions from other companies associated with the activities of the reporting company)
- ※2 Japanese government's comprehensive plan based on the Act on Promotion of Global Warming Countermeasures (Cabinet decision on October 22, 2021)

# Scope 3 \*1

DOWA HOLDINGS will gather and identify facts about GHG emissions from our supply chain before considering their incorporation into the targets.

GHG emissions reduction targets at our overseas business locations

For GHG emissions from our overseas business locations, we will stay updated on facts and conduct monitoring in the countries where they operate. In this way, we will repeat discussion for setting targets.

Contact the following if you have feedback or inquiries about this report.

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https://www.dowa-csr.jp/en/ ► Website