Environment

Taikisha is working to realize a low carbon society by reducing greenhouse gas (GHG) emissions and environmentally hazardous substances by leveraging its technological expertise cultivated in the HVAC business.

Disclosure of climate-related information based on **TCFD's recommendations**

In December 2021, Taikisha expressed its support for the recommendations of the "Task Force on Climate-related Financial Disclosures (TCFD)" and joined the "TCFD Consortium." The mitigation of and adaptation to climate change is one of our top management priorities (materiality or material issues), and we are endeavoring to reduce environmental impacts through our core business of providing air conditioning and sanitation equipment, and painting plants with high energy-saving performance.

In addition, in order to identify and evaluate climaterelated risks and opportunities and to understand the medium- to long-term impacts of climate-related issues on our businesses, we conducted scenario analyses of two businesses, the Green Technology System Division and Paint Finishing System Division. Based on the results of these analyses, we disclose climaterelated information in line with TCFD's recommendations.

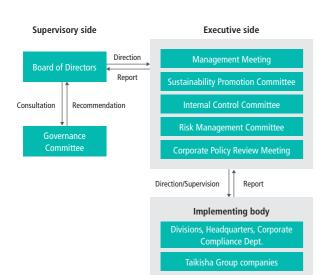
Governance

Regarding that addressing global-scale social issues, such as climate change, is our raison d'être (purpose), the Management Meeting is aware of and perceives risks and opportunities as business opportunities and incorporates them into management strategies. The Management Meeting formulates a company-wide action plan for environmental conservation activities, which will be referred to the Board of Directors for final approval.

In addition, the Corporate Policy Review Meeting keeps track of and evaluates the status of environmental conservation activities based on the plan, reviews goals, and reports the results to the Board of Directors at least twice a year.

Upon the receipt of these reports, the Board of Directors supervises climate-related risks and opportunities and monitors goals and progress.

Responsibilities for evaluating and controlling climate-related risks and opportunities are assigned to the President and Representative Director, who chairs the Risk Management Committee. With regard to the



linkage with incentives, non-financial indicators are introduced, from the perspective of complying with the CG Code, at a specific rate to the compensation structure of the executive directors, and we review them with a view to encouraging the strengthening of promotional activities.

Strategies

In order to identify and evaluate climate-related risks and opportunities and to understand their impacts on our businesses, we conducted scenario analyses of the Green Technology System Division and Paint Finishing System Division through the process described below.

Specifically, we firstly identified factors of risks and opportunities having a great impact on us. Next we conducted an analysis concerning shifts in policies and market trends, and physical changes attributable to

Analysis process

2

1 Evaluation of the degree of the priority of each risk

Identify the risks and opportunities of climate change that Taikisha Group is currently confronted with and is expected to be confronted with in the future in the Green Technology System Division and Paint Finishing System Division, and evaluate their degree of importance on our future businesses.

Definition of scenarios

Select multiple scenarios, and then obtain objective future information on parameters related to risk and opportunity items. Based on this information, categorize global movements around us, including the behavior of future stakeholders in each of the scenarios.

Evaluation of impacts on businesses

Based on global movements in each scenario, consider what strategic options we should take, clarify the gap between existing management, business strategies, and plans and them. Then estimate their impacts on businesses.

4

Based on each scenario and our actions, scrutinize applicable and realistic countermeasures to address the identified risks and opportunities.

disasters, using each of a less-than-2°C scenario, which assumes that the average temperature rise of the world in 2035 will be kept below 2°C, and a 4°C scenario, which assumes that the average temperature will rise by approximately 4°C. We perceived "carbon taxes," "changes in customer behavior," and "prevalence of energy-saving and renewable energy technologies" as shift factors, and "average temperature rise" as a physical factor, and identified them as important risks and opportunities.

The degrees of the financial impacts on the businesses verified in each scenario are indicated in units of one billion yen using arrows, and a countermeasure against each of the impacts is also described.

Selected climate change scenarios

With reference to the climate change scenarios published by the International Energy Agency (IEA) and other organizations, we selected the less-than-2°C scenario (transition to low carbon) and the 4°C scenario (no further significant policy measures are taken). With

Items of material risks and opportunities			Risk	Opportunity	Financial impact in each scenario 4°C Less- than-2°C		Assumed countermeasure	
Transition risk, opportunities	Policy/ Regulation	Carbon tax	Introduction of carbon taxes (Due to the rises in carbon prices and material costs, the cost will increase by about 300 million yen in the 4°C scenario and by about 9 billion yen in the less-than- 2°C scenario.)	Growth of demand for low-carbon buildings (increase in sales) Growth of demand for low-carbon painting plants (increase in sales)	8	0	 Setting of GHG emission reduction targets Keeping track of the total amount of GHG emissions, improvement in analysis efficiency Improvement in energy efficiency and introduction of renewable energy by the company Development of low-carbon installation work technologies and systems Participation in the renewable energy industry Development of air conditioning equipment and technologie compatible with environmental countermeasures, policies, and measures taken by each country 	
	Industry/ Technology/ Market	Changes in customer behavior, prevalence of energy-saving and renewable energy technologies	Response to requests from customers (rise of operating costs and inadequate responses → decrease in sales), deterioration of competitiveness in the development of energy- saving and renewable energy technologies (decline in sales)	Increase of about 1.1 billion yen in sales in the 4°C scenario and of about 2.2 billion yen in the less-than-2°C scenario as a result of integrating customers' needs for low-carbon buildings and fluctuations in demand for construction works of growing Net Zero Energy Buildings (ZEBs), development of advanced energy-saving and renewable energy technologies (increase in sales)	0	0	 Expansion of installation works of energy-saving equipment, such as the transformation of plants into ZEB: Construction of energy circulation systems Provision of energy-saving solutions, such as energy management Development of low-carbon installation work technologies and systems Miniaturization and energy saving of equipment Acquisition of skills that will contribute to the reform of painting processes, and promotion of product development of low-carbon installation work technologies Development of CO₂ recovery and recycling technologies, etc., creation of businesses New water treatment, maintenance and effective use of water resources, and generation technologies (MOF, etc.) Digital fusion for research and development and the creation of neutots at construction sites Development and verification of setup. 	
Physical risks and opportunities	Chronic	Average temperature rise	Deterioration of labor productivity due to an average temperature rise and suspension of construction works due to the increase of extremely hot days (increase of about 400 million yen in operating costs in the 4°C scenario and of about 370 million yen in the less-than- 2°C scenario) Revision of labor laws and regulations (decrease in sales)	Growth of demand for air conditioning system technologies (increase in sales) Promotion of the mechanization and automation of installation works (increase in sales) Growth of demand for plant factories (increase in sales)	8	•	 Diversified expansion of the plant factory business, energy recycling of plant factories Promotion of the mechanization and automation of installation works Improvement of the working environment, such as good air conditioning and enough rest areas Promotion of countermeasures against heatstroke 	

awareness that the impacts of climate change have the nature of becoming apparent over the medium-to-long period, we analyzed the impacts of climate change in 2035 as the reference timeline.

4°C scenario

If more powerful countermeasures than the ongoing ones are not taken against global warming, land surface temperature will rise by 2.7 to 5.4°C from the level in the period of the Industrial Revolution.

Less-than-2°C scenario

If strict countermeasures are taken against global warming, land surface temperature will rise by 0.9 to 2.3°C from the level in the period of the Industrial Revolution

Results of scenario analyses

As a result of the scenario analyses, the material climate-related risks that will affect our businesses, opportunities, and the financial impacts as of 2035 are as follows:

Risk Management

The Taikisha Group is endeavoring to reduce material risks, including climate change, and minimize risks that will become apparent. The Risk Management Committee assesses the level of each risk, selects risks we should deal with, and formulates and implements policies, for reducing risks from the overall perspective of the group.

Specifically, we have established the Risk Management Rules and organized the Risk Management Committee based on the rules to conduct centralized, effective, and efficient management of the group's risks. The Committee, chaired by the President and Representative Director, is held twice a year and whenever necessary, and establishes and thoroughly disseminates basic policies, responsibility systems, and operation for company-wide risk management.

When it comes to material risks, including climate change, each of the departments in charge identifies items and determines the "degree of risk (degree of importance)" with three levels-High, Medium, and Low—taking into account the "impact on management" and the "frequency of occurrence."

Among them, High items that have a significant impact on our strategies or financial status are selected as risks that should be preferentially dealt with and reported to the Risk Management Committee after formulating priority management policies and targets.

The Risk Management Committee assesses the degree of each risk and discusses the priority management policies and targets from a company-wide, comprehensive perspective, and formulates basic policies. Then, each department in charge monitors the progress of its activity plan and reports the results to the Risk Management Committee.

The Chairperson (President and Representative Director) of the Risk Management Committee scrutinizes the status of company-wide risk management and reports it to the Board of Directors twice a year after discussion by the Internal Control Committee.

In addition, the Management Meeting, which determines important management matters on the whole, discusses the risks and opportunities of climate change, reviews climate change scenarios, and reflects them in long-term strategies. The Management Meeting reports related issues, including the risks of climate change, to the Board of Directors alongside of the reporting from the Risk Management Committee.

In order to strengthen risk assessments from a company-wide, comprehensive perspective, the members of the Internal Control Committee conduct additional company-wide assessments and formulate policies.

Meeting body organization	Overview of organization	Overview of activities		
Board of Directors	Organized by each director	 Held once each month Risks of climate change Supervising the risks and opportunities of climate change (monitoring targets and their progress) 		
Governance Committee	Chairperson: Outside director	 Held at least four times a year Replying to questions from the Board of Directors about the risk management system and the status of risk management, and advancing proposals to the Board of Directors 		
Management Meeting	Chairperson: President and Representative Director	 Reviewing climate change scenarios and reflecting them in long-term strategies Discussing the risks and opportunities of climate change Considering if the climate-related issues should be reported to the Board of Directors 		
		 Held as needed Discussing the risk management system and the status of risk management 		
Risk Management Committee	Chairperson: President and Representative Director	 Held twice a year Perceiving and assessing the risks of climate change and confirms the direction of actions against important risks 		
Corporate Policy Review Chairperson: President and Representative Director		 Held twice a year The Corporate Policy Review Meeting considers countermeasures against important risks of climate change and reflects them in company-wide policies and each department. 		
Sustainability Promotion Committee	Chairperson: President and Representative Director	 Held four times a year Responding to external initiatives related to climate change, such as TCFD and CDP, keeping track of GHG emissions, and monitoring the degrees of achievement of target values Sustainability-related matters in a broader sense are addressed by the Management Meeting and the Risk Management Committee. 		

Reduction target

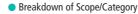
We contribute to realizing a decarbonized society by actively endeavoring to reduce CO₂ emissions of equipment designed and constructed by us during the operation stage, under long-term reduction targets.

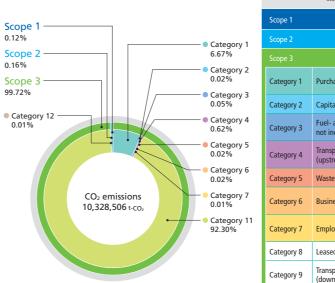
Business	Reduction target for 2050	Milestone for 2030	Commitments in FY 2022 (achievements)
Green Technology System Division	CO ₂ emissions reduced by 80% (from FY 2013 level)	CO ₂ emissions reduced by 25% (from FY 2013 level)	We proposed a system capable of controlling energy used throughout a building's lifecycle, and provided technologies for "low carbon" and "reducing environmental burdens."
Paint Finishing System Division	We reduce CO ₂ emissions of automobiles to virtually 0kg-CO ₂ / unit with the technologies that envisages future energy reform.	We reduce CO_2 emissions of automobiles to 60 kg- CO_2 /unit with the current heat source configuration for paint finishing processes.	Using an energy estimation model for a paint finishing line, we have improved efficiency and downsized equipment, and introduced renewable energy and low- temperature waste heat recovery systems.

Indicators and Targets

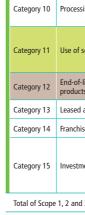
Indicators used to manage and assess climate-related risks and opportunities

In order to manage climate-related risks and opportunities, various measures are implemented by setting indicators not only for GHG emissions but also for energy consumption, water usage, and waste emissions.





*Emission factor is calculated based on the Emission Factor Database on Accounting for Greenhouse Gas Emissions throughout the Supply Chain (ver.3.3) of the Ministry of the Environment and LCI Database IDEAv2 (for calculating greenhouse gas emissions in supply chain) of The National Institute of Advanced Industrial Science and Technology, Research Institute of Science for Safety and Sustainability, Advanced LCA Research Group, Sustainable Management Promotion Organization.





https://www.taikisha-group.com/ sustainability/taikisha/tcfd/



Scope/Category	Accounting methods*	Emission amount (t-CO ₂)
	-	12,689
	-	16,206
		10,299,611
Purchased goods and services	Calculated from (raw) materials procurement amount (in value terms)	688,465
Capital goods	Calculated from amount of capital investment	1,841
Fuel- and energy-related activities not included in Scope 1 or 2	Calculated from purchased amount of electricity and fuels	4,981
Transportation and delivery (upstream)	Calculated from transportation costs accompanying procurement of (raw) materials	63,905
Waste generated in operations	Calculated from amount of waste discharged by type	1,999
Business travel	Calculated from travel expenses paid by mode of transportation	2,303
Employee commuting	Calculated from transportation expenses paid to employees	1,799
Leased assets (upstream)	Included in Scope 1 and 2 emission calculation	_
Transportation and delivery (downstream)	No relevant activities	-
Processing of sold products	There are some products that are relevant, but calculations are ignored because their ratios in sales are extremely small.	-
Use of sold products	Calculated from emissions from operation of facilities Taikisha provided, HFC leakage from equipment Taikisha provided, and estimated useful lives	9,532,735
End-of-life treatment of sold products	Calculated from weight of main equipment by type	1,584
Leased assets (downstream)	No relevant activities	-
Franchises	No relevant activities	-
Investments	Calculations are ignored because the validity of the category 15 estimates is low as a result of many portfolio companies not disclosing Scope 1 and 2 emissions and the impact of the category 15 estimates on the entire supply chain is small.	-
e 1, 2 and 3		10,328,506

[Green Technology System Division] Efforts for Realizing a Low Carbon Society

Taikisha is helping to reduce GHG emissions at the operation phase of the air-conditioning and sanitary facilities it provides to clients.

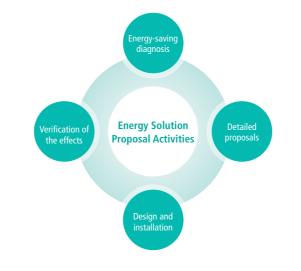
Activities in the Field of Air-Conditioning System for Buildings and Factories

Eco-Friendly Design

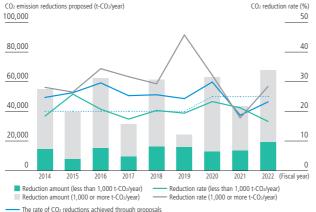
The Green Technology System Division, as part of promoting eco-friendly designs, makes proposals for improving the energy efficiency (reducing environmental impacts) of facilities owned by clients. In energy-saving proposal activities, the Division repeats the cycle of energy-saving diagnosis to grasp the current status, make detailed proposals based on clients' future visions, design and installation based on energy-saving proposals, and verify the effects in the operation phase.

To contribute to the target reduction in energy-originated CO₂ emissions by FY2030 (45.0% reduction compared with FY2013) under the Plan for Global Warming Countermeasures, an additional Cabinet decision made in October 2021, Taikisha has developed a proprietary simulation-based Energy Plant Optimal Control System, which maximizes the amount of energy saved by heat source systems through optimal operation control according to external conditions that change from hour to hour and thus helps reduce CO₂ emissions and running costs. Taikisha is also working on the development of energy-saving technologies of clean room systems that control the air conditioning by tracking the operation status of production equipment, staffing and indoor environment as well as room pressure control systems and dehumidification (dry room) systems, by incorporating the advanced technologies such as AI and IoT into air-conditioning systems for factories and buildings. In overseas projects, which are our specialty, the scope of design and installation often includes electrical equipment, and we proactively propose energy-creating solutions such as photovoltaic power generation.

Taikisha defines the rate of CO₂ emissions reduced from facilities owned by clients due to Taikisha's proposals as the rate of CO₂ reductions. The transition in the rate of CO₂ reductions for the past 9 years is shown in the figure on the right. In FY2022, we set a CO_2 reduction rate target of 25.0% or more on a weighted average for in-house design projects and achieved 23.2% (for CO₂ reduction rates by each fiscal year, the most recent results of the proposals are used as a basis for comparison.). In FY2022, both the number of proposals and the amount of proposed CO₂ emission reductions were the highest in the past 9 years. The amount of proposed CO₂ emission reductions that corresponds to Category 11 under Scope 3 was about 1,020,000 t-CO₂ (the effect of 15 years of operation). (Including consolidated companies in Japan and overseas affiliates)



• Transition in the amount of proposed CO₂ emission reductions and the rate of CO₂ reductions (by proposal size)



Target rate of CO₂ reduction

Breakdown of the amount of proposed CO₂ emission reductions

		Amount of proposed CO ₂ emission reductions			
		< 1,000 t/year	\geq 1,000 t/year	Total	
Standard amount of generation	. E 000 three	13,065	6,557	19,622	
	< 5,000 t/year	24.4%	59.1%	30.4%	
	5 5 000 t/unor	2,013	26,082	28,095	
	≥ 5,000 t/year	5.4%	25.1%	19.9%	
	Not specified	4,105	15,949	20,054	
	Total	19,183	48,588	67,771	

Toward the Targets of the Medium-Term and Long-Term Plans

In order to achieve the Medium-Term plan target for 2030, Taikisha will utilize a variety of energy-saving technologies as well as new energy-saving technologies currently being developed.

From 2030 onward, drastic measures will be required to achieve carbon neutrality by 2050. Accordingly, Taikisha will work not only to reduce the air-conditioning load and introduce energy-saving technologies, but also to use electricity derived from renewable energy sources and/or to switch from combustion energy sources.

In February 2022, the reconstruction of a research building was started at our Research and Development Center. Once completed, the facility will be a research facility that will allow us to verify experiments as well as utilize simulation technology to achieve more efficient development. Additionally, the facility building itself aims to be a ZEB (Net Zero Energy Building), as well as obtain certifications as ☆☆☆☆☆ of BELS (Building-Housing Energy-efficiency Labelling System) and Rank S of Wellness Office.

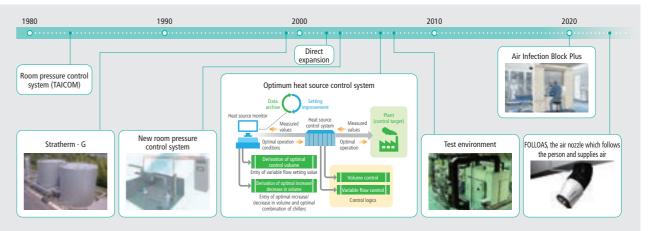
Development of new room pressure control system

Taikisha will develop a new room pressure control system that enables reduction of air-conditioning conveyance power in pharmaceutical manufacturing plants, contributing to reduction of air-conditioning energy and running costs during non-work mode operation along with reduction of CO₂ emissions.

Development of CO₂ separation and utilization technology

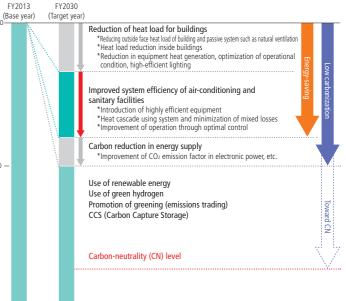
While we are working to achieve carbon neutrality by 2050 through such means as energy saving and the use of facilities with low environmental impact, it is essential to introduce CCU (Carbon dioxide Capture and Utilization), a technology for CO₂ separation and utilization, for areas where decarbonization is not viable. As such, Taikisha is developing DAC (Direct Air Capture) targeting CO₂ in the atmosphere, utilizing adsorption and desorption technology to develop a CO₂ concentration capture and supply system.

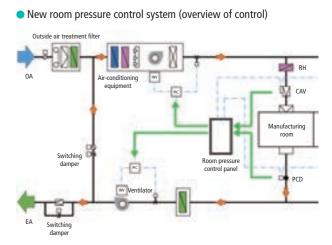
History of development of energy-saving and environmental conservation technologies



50.

Roadmap for reduction of CO₂ emissions (illustration)





[Paint Finishing System Division] Efforts for Realizing a Low Carbonization

Taikisha is helping to reduce GHG emissions in the paint finishing process for automobiles, etc.

Activities in the Field of Automobile Paint Finishing Systems

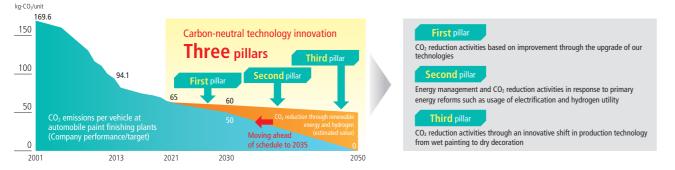
Toward carbon neutrality in automobile painting processes

In response to the growing demand for a carbon-neutral society around the world, each country announced specific targets for greenhouse gas (GHG) reduction at the 2021 Leaders Summit on Climate. In the automotive industry, which is one of the industries that will be most significantly affected by this, automakers have expressed support for the Task Force on Climate-related Financial Disclosures (TCFD). They emphasize the inclusion of reduction targets in their business strategies in light of risks and opportunities from climate change. Against this backdrop, the Company believes that its mission is to work with automobile manufacturers to develop and provide paint facilities that

The Company's carbon neutrality strategy and future policy

In alignment with high environmental targets set by automobile manufacturers around the world, the Company started examining and deploying technologies to reduce CO₂ emissions early on. We are in a position to take great advantage of being able to receive direct input from customers from diverse automobile manufacturers regarding their technological needs and points for improvement and, when necessary, even engage in collaborative development while developing and proposing CO₂ reduction technology.

• The Company's carbon neutrality goals and basic policy



Vision and image of Taikisha's three pillars of carbon-neutral technology

CO₂ reduction activities based on improvement through the upgrade of our technologies First pillar

In the conventional painting process, we are developing and expanding a product lineup called the "i-series" that will reduce CO₂ emissions by significantly upgrading basic items.

Equipment products of paint booth

i-LAVB (low air volume booth) By creating airflow for each function, the air volume of the booth will be largely reduced CO₂ emissions

reduced by approximately 30%



i-VACH

Equipment products of paint oven

i-HEB (high-efficiency block oven) An oven with a compact module structure capable of efficiently raising the baking temperature in the oven.



System products of paint finishing system i-Navistar (AI/IoT system for paint finishing factories)

reduce CO₂ emissions to zero in order to achieve carbon neutrality in the

Trends in each country

Base year

1990

1990

2005

Japan 2013

China 2005

U.K.

EU

U.S.

automobile manufacturing process, particularly at paint finishing factories.

Target rate of CO₂ reductions (the COP26 announcement)

As for our future carbon neutrality strategy, we are going to keep in

step with the basic strategies of automobile manufactures. We plan to

reduce emissions by using renewable energy and hydrogen energy by

innovations such as changing production technologies. Specifically, we

2050. At the same time, we will work to develop technological

have established the following three pillars.

refine our current low CO₂ production technologies until 2030, and then

Net zero emission

Extended the deadline to 2060

2030

46% (50% if feasible

68% or more

55% or more

50-52% or more

No calculation available

A system that manages the entire painting process from a bird's-eye view by utilizing AI and IoT.



Second pillar

Energy management and CO₂ reduction activities in response to primary energy reforms such as usage of electrification and hydrogen utility

Fully electrified facilities

Based on the premise that it will become possible to supply carbonfree power sources, we propose the total electrification of our paint finishing factories through the use of heat pumps and innovative electric heaters as an energy-saving system.



Third pillar CO₂ reduction activities through an innovative shift in production technology from wet painting to dry decoration

Against the backdrop of automakers' search for next-generation production technologies to achieve carbon neutrality, we are examining various decorating systems as an example. If the film OMD (Out Mold Decoration) for automobile exteriors is put to practical use, the spray coating process will be eliminated,

resulting in significant environmental benefits, such as low carbon emissions and reduced wastewater and exhaust emissions. In addition, since decorating films may add design features with patterns and functionality (solar cells, heat shielding, etc.), the Company is promoting the development of dry decorating technology and automated systems for decorating lines.



OMD (Out Mold Decoration) dry decorating film vacuum molding Achievements of the Company's carbon neutrality initiatives and future targets

In order to visualize the effects of the CO₂ emission reduction technologies that we have proposed, we have been calculating CO₂ emissions in automobile paint per unit since 2000, based on the energy estimation model for automobile paint finishing lines, and have been objectively evaluating and proposing CO₂ emission reduction technologies.

CO₂ emissions were estimated in 2005 at 160.1 kg-CO₂/unit. By 2020. however, we began introducing heat pump technology and high-efficiency equipment as well as proposing dry-type paint booths and other CO₂ reduction technologies. Since 2020, we have proposed our products based on improvement through the upgrade of our technologies, which is the first pillar of our carbon neutrality policy, such as i-LAVB (low air volume booth) and i-VACH (indirect furnace with VOC treatment function), resulting in 64.9 kq-CO₂/unit of CO₂ emissions in 2021.

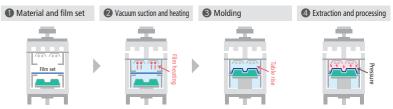
• CO₂ emissions estimates at automobile paint finishing plants: Transition in CO₂ emission reductions proposed and future target - Transition in CO₂ emission reductions proposed and future target -

Pretreatment Electrodeposition Oven Main booth/air-conditioning equipment Flash-off Simple booth/air-conditioning equipment (kg-CO₂/unit) 200 160 1 116.0 150 26.7 -28% -47% 17.7 -50% 56% 44 20.8 100 14.6 18.3 64.6 49 15.5 12.4 4.9 15.1 37.6 12.4 50 4.9 12.4 31.2 4.9 19.4 29.7 16.1 21.0 17.0 17.0 15.5 r4.1 76 r7.1 9.9 Estimates for Estimates for Estimates for Estimates for Estimates for FY2013 FY2005 FY2010 FY2015 FY2020 (Dry circular, improved booth recycling ratio heat pump technology ystem for drying furnace ED lighting uction of INV turbo -Drv Scrubber (Cardboar -type Booth), energy-savir mist humidification () Technologies proposed to reduce refrigerating equipment/ high-efficiency motor pump, energy-saving) (F CO₂ emission



Hydrogen heat source

We propose and realize hydrogen heat source for high-temperature equipment in paint finishing systems, such as hydrogen burners and mixed combustion burners of hydrogen and conventional combustion gases.



In FY2022, we further reviewed our existing technologies and succeeded in making technological proposals to reduce CO₂ emissions for the entire painting plant to 63 kg-CO₂/unit by measures such as improving the thermal insulation performance of drying furnaces in the painting process, improving exhaust air recycling for workplace air conditioning, and proposing a cascade system for drying furnace cooling equipment.

We will promote our technological proposals to reduce CO₂ emissions in line with the three pillars of our carbon neutrality policy, including the use of electricity from renewable energy sources for painting facilities (allelectric facilities), the use of hydrogen energy, and proposals for film decorating systems. As for emission targets, we will strive to achieve 50 kg-CO₂/unit by 2025, 40 kg-CO₂/unit by 2030, and ultimately net zero CO_2 emissions sooner than the targeted year of 2050.

