

Disclosing Information in Line with TCFD Recommendations

Based on Vision for 2030, "Create new value with visionary technology and tackle the challenges of achieving a sustainable society in collaboration with customers", the MEC Group has identified six material issues that management will address in order to contribute to the creation of a prosperous and enriching society and environment by creating interfacial value through business activities. As a manufacturing company, we regard climate change as an important management issue and have identified "environmental conservation" as one of our material issues. In February 2023, we expressed our support for the TCFD recommendations, and we are promoting activities by disclosing information on the risks and opportunities that climate change poses to our business, as well as the countermeasures we plan to take, in accordance with the recommendations.

In February 2024, as part of further information disclosure, we updated the content of information that we disclose as follows. In this section, we reintroduce the Group's response to climate change, including updated details.



Governance

As an R&D-oriented company, we have positioned climate change as an important management issue and promote activities to curb its effects.

The ESG Committee*, chaired by the CEO & President, deliberates and formulates the risks and opportunities of climate change surrounding the Company as well as related proposals, which are then submitted to the Board of Directors.

The Board of Directors supervises the effectiveness of the ESG Committee's recommendations.

Governance Structure for Climate Change



*ESG Committee

The purpose of the committee is to formulate and propose management strategies (ESG management strategies) to promote corporate governance reform, fulfill social responsibilities, and encourage environmental conservation activities in a unified (co-progressive) manner. Based on the recommendations of the committee, the Company has realized a broadening and diversification of its management strategies, creating corporate value over the medium to long term through rich relationships with employees, customers, society, and the natural environment.

The committee is chaired by the CEO & President, and the majority of its members are Independent Outside Directors.

Committee meetings are held about four times a year, and the ESG Promotion Department is in charge of the secretariat.

Strategy

The TCFD requests that companies disclose how risks and opportunities related to climate change will affect their finances. In the TCFD recommendations, climate change-related risks are classified into the categories of "transition risks" and "physical risks". Based on the recommendations, we set 2030 as our target year and examined risk items. In this process, we identified risk items that are closely related to our business and highlighted particularly serious risks. We strived to understand the environmental issues caused by climate change as well as changes in the business environment and the impact of such changes, and identified risks in the same manner.

Impact Assessment Process



Scenario Analysis Based on Risks and Opportunities

The Paris Agreement calls for efforts to keep the global average temperature increase well below 2°C above pre-industrial levels, and to limit the increase to 1.5°C.

Using references such as the Intergovernmental Panel on Climate Change (IPCC)'s Sixth Assessment Report and the International Energy Agency's World Energy Outlook, we began examining physical and transitional risks associated with business management based on a "scenario based on current policies", "below 2°C scenario", and "1.5°C scenario" around 2030. In the "1.5/2°C scenarios", where climate change measures are progressing, policy regulations are strengthened to achieve carbon neutrality, and society as a whole proactively takes measures to combat climate change. In these scenarios, demand for environmentally-friendly products is expected to increase, opportunities for new markets are created, and production and raw material procurement costs are expected to rise due to the introduction of a carbon tax.

In the "4°C scenario", decarbonization measures are not sufficiently promoted, increasing the possibility of being impacted by more frequent and severe natural disasters such as floods.

In assessing risks and opportunities related to climate change, we considered their relative importance to our company and stakeholders. The timing of occurrence is defined as either "medium term", which is up to 2030, the final year of the medium-term management plan (Phase 3), or "long term", which is from 2031 onward. The degree of impact is in terms of the frequency of occurrence and monetary impact, and is evaluated as "small", having little to no impact, "medium", having a partial impact on business, or "large", being serious enough to stop or significantly shrink or expand business.



List of Assumed Risks Regarding Climate Change

	Technology	 Increased production costs Delayed development for environmentally friendly products Increased investment costs for development of environmentally friendly products 						
Transition	Policies/ Regulations	 Increased operating costs due to the introduction/expansion of carbon tax Difficulty in procuring raw materials and restrictions/prohibitions regarding production and sales of raw materials/products in accordance with laws and regulations in each country 						
	Market	• Decreased demand for commodities that use large amounts of water						
	Reputation	• Deterioration of corporate brand and reputation due to stricter evaluation standards and delays in responding to the expansion of disclosure requirements						
Phy	Acute	 Increased frequency/severity of abnormal weather/natural disasters 						
sial	Chronic	• Instability regarding supply of water, electricity, raw materials, and natural resources						

From the table above and the list of risks, we have identified the following risks and opportunities that we consider to be of particular importance.

Risks Related to Climate Change (Below 1.5/2°C Scenarios) Risks Related to the "Transition" to a Low-Carbon Economy

	^	asumad Bioka	Company	Degre	ee of In	pact	Timing of Occurrence		
	A		Response	Small	Medium	Large	Medium Term	Long Term	
Transition	Technology/ Market	Decreased sales due to customers changing their production processes to make them more environmentally friendly and our Company being unable to follow suit	• Early collection of		0	0	0	0	
	Policies/ Regulations	Decreased sales due to difficulty in procuring raw materials and restrictions/ prohibitions regarding production and sales of raw materials/ products in accordance with laws and regulations in each country	 Preemptive development of environmentally friendly products Enhance SCM 	0			0	0	
	nogulationo	Increased operating costs due to the introduction/expansion of carbon tax		0			0	0	

Risks Related to Climate Change (Below 4°C Scenario) Risks Related to "Physical" Changes

	A	ssumed Risks	Company Response	Degr Small	ee of Im Medium	npact Large	Timir Occur Medium	ng of rence Long Term
Physial	Acute	Decreased sales due to suspension of operations at business sites and factories as a result of increasingly severe and frequent abnormal weather and natural disasters, and suspension of purchases and shipments due to transportation network interruptions	 Maintain and strengthen alternative production systems Enhance SCM Develop/strengthen BCPs (Flexible work systems, etc.) 		0	0	0	0

Opportunities Related to Climate Change

	A		Company	Degree of Impact Timing of Occurrence						
	Assur	ned Opportunities	Response	Small	Medium	Large	Medium Term	Long Term		
	Resource	Increased sales of environmentally friendly products due to progress in DX/GX			0	0	0	0		
Transition	Applications/ Products/ Services	Increased sales due to growth and development of the semiconductor and digital industries along with progress in DX/GX, and due to expansion of demand for electronic components related to the Company resulting from an expansion of areas applying AI technology	 Early collection of market needs Preemptive development of environmentally friendly products 		0	0	0	0		

Risk Management

The Company's TCFD Study Team is identifying "risks and opportunities" related to climate change, working to recognize them in cooperation with related departments. The ESG Committee and other organizations discuss and decide upon measures to deal with key risks identified through the assessment process.

Metrics and Targets

Our Group has set the following two qualitative objectives for 2030 as a response to climate change issues related to environmental conservation.

- Earnestly address global environmental issues for the sustainable growth of society
- Reduce energy use and work toward net zero emissions

More specifically, we set the following CO2 reduction target

• Reduce actual total Scope 1 and 2 emissions in Japan by **50%** by FY2030 (base year: FY2017)

Report on Environmental Conservation

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The Company develops, manufactures, and sells chemicals for manufacturing of electronic substrates. In conducting business activities, we consume energy and use resources. Recognizing this, we are working to reduce our environmental burden.

In addition to complying with environmental laws and regulations, etc., related to business activities, we provide products that take into consideration energy conservation measures, waste reduction, proper management of chemical substances, and product life cycle. The aim is to make effective use of resources, prevent pollution, and conserve the environment.

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Relationship Between Business Activities and the Environment

We monitor the amount of energy and resources used in our business activities, as well as the amount of CO_2 emissions, wastewater, and industrial waste.

Offices in Japan

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	INPUT													
Office Name	Electricity consumption	City gas usage	Gasoline usage (company owned car)	Kerosene usage (heating of manufacturing sites)	Light oil usage (snowplow)	Water usage	Volume of PRTR target		Production volume	Amount of CO ₂ emissions	Amount of wastewater	COD	Industrial waste emissions	Of which amount of final waste disposal
Amagasaki HQ. (Amagasaki Factory)	1,110 thousand kWh	_	104 L	—	—	6,979 m ³	394 t		2,769t	482t-CO ₂	5,187 m ³	0.092t	Included in Amagasaki HQ. (R&D Center)	Included in Amagasaki HQ. (R&D Center)
Nagaoka Factory	642 thousand kWh	1,192 m ³	323 L	11.3 kL	0.30 kL	18,957 m ³	83.1 t		13,042 t	335t-CO2	9,711 m ³	0.595t	152 t	3.01 t
Nishinomiya Factory	9.31 thousand kWh	0 m³	_	-	-	201 m ³	Ot	\rightarrow	Ot	4.04t-CO2	201 m ³	_	6.20t	2.59t
Amagasaki HQ. (R&D Center)	930 thousand kWh	—	792 L	-	-	6,564 m ³	5.6t (Including Higashi-hatsushima HQ.)		-	405t-CO2	4,171 m ³	0.074t	235t*	50.4t*
Higashi-hatsushima HQ. (Including some R&D centers and the head office)	426 thousand kWh	_	137 L	_	—	1,103 m ³	Included in Amagasaki HQ. (R&D Center)		—	185t-CO ₂	1,103 m ³	0.006t	29.9t	8.32t
Amagasaki HQ. (Head Office)	542 thousand kWh	_	1,801 L	—	—	Included in Amagasaki HQ. (Amagasaki Factory, R&D Center)	-		-	239t-CO ₂	Included in Amagasaki HQ. (Amagasaki Factory, R&D Center)	—	_	_
Tokyo Sales Office	21.5 thousand kWh	_	7,249L	-	-	_	-		-	25.2t-CO2	_	_	0.00t	0.00 t

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The Nishinomiya Factory ceased operation at the end of December 2021, but there were inputs and outputs associated with the factory closure until the end of May 2023.

* Calculated for the entire Amagasaki HQ.

Global Base

MEC (HONG KONG) LTD.		MEC FINE CHEN (ZHUHAI) LTD.	MICAL	MEC CHINA SPECIA (SUZHOU) COMPAN	ALTY PRODUCTS NY LTD.	MEC TAIWAN C	OMPANY LTD.	MEC EUROPE N	IV.	MEC SPECIALTY CHEMICAL (THAILAND) CO., LTD.	
INPU	INPUT INPUT		т	INPUT		INPUT		INPUT		INPUT	
Electricity consumption	3.59 thousand kWh	Electricity consumption	266 thousand kWh	Electricity consumption	424 thousand kWh	Electricity consumption	420 thousand kWh	Electricity consumption	69.7 thousand kWh	Electricity consumption	332 thousand kWh
Water usage	540 m3	Gasoline usage	10.9471	Gasoline usage	22.206.1	Gasoline usage	0.7911	Gas usage	22,744 m ³	Gasoline usage	4,149L
Water usage	540 MP		12,347 L		22,200 L		9,701L	Gasoline usage	21,944 L	Light oil usage	5,077 L
		Water usage	9,319 m ³	Water usage	14,374 m³	Water usage (Excluding groundwater)	2,742 m ³	Water usage (For manufacturing)	2,544 m ³	Water usage	6,380 m ³
OUTP	UT	OUTP	UT	OUTP	UT	OUTP	UT	OUTPUT		OUTPUT	
Amount of OO, aminging	1 404 00	Production volume	4,962 t	Production volume	5,805 t	Production volume	6,300 t	Production volume	2,188t	Production volume	1,105 t
Amount of CO2 emissions	1.40t-CO ₂	Amount of CO2 emissions	180t-CO2	Amount of CO2 emissions	216t-CO2	Amount of CO2 emissions	230t-CO2	Amount of CO2 emissions	128t-CO2	Amount of CO2 emissions	189t-CO2
		Amount of wastewater	4,963 m ³	Amount of wastewater	14,374 m ³	Amount of wastewater	7,675 m ³	Amount of wastewater	500 m ³	Amount of wastewater	2,054 m ³
		Industrial waste emissions	88.8t	Industrial waste emissions	108t	Industrial waste emissions	33.1 t	Industrial waste emissions	23.1 t	Industrial waste emissions	29.3t

Electricity consumption, Water usage and discharge status in Japan

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Electricity Consumption

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The Nishinomiya Factory ceased operation at the end of 2021, after which, two factories have been operating, namely the Amagasaki Factory and the Nagaoka Factory. Electricity consumption in FY2023 was almost the same as in FY2022, but the intensity increased significantly because production volume fell. Electricity use is expected to continue to increase as it is mainly used to improve the working environment. In order to reduce our environmental impact as much as possible, we are generating solar power on the roof of the Amagasaki Headquarters. In addition, we began purchasing renewable energy at the Amagasaki Headquarters to purchase renewable energy in FY2024.



Electricity consumption										
FY2022 3,665 thousand kWh → FY2023 3,681 thousand kWh ↑ 0.4 % ↑										
Solar power ge	eneration (Amaga	asaki Headquarters)								

CO₂ Emission

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We have calculated the GHG protocol Scope 1 (fuel) and Scope 2 (electricity and heat) as CO₂ emissions. Scope 2 (electrical) accounts for 97%. We calculated Scope 3 emissions for some categories.

∑ Emissions in the supply chain ● P.18

Water usage and Amount of wastewater

Because water is a key ingredient in MEC's products, the amount of water used changes according to changes in the volume of products manufactured. We understand the amount of water used and are aware that we use a large amount not only in our raw materials but also in our manufacturing facilities, container cleaning, and substrate processing lines in our R&D activities. For this reason, we are working to reduce the number of times equipment is cleaned, to introduce automatic container-cleaning equipment, and to reduce wasteful use in substrate processing line work. Water used in manufacturing and R&D operations is treated in wastewater treatment facilities in line with the regulated standards and discharged into the sewerage system as wastewater. We manage wastewater to ensure that we do not discharge wastewater that exceeds standards. In FY2023, there was one incident of wastewater discharge that exceeded standards, and we reported it to the government. After the discovery of the exceedance of standards, we also took appropriate measures, and as a result of the investigation of the cause and countermeasures, there have been no subsequent occurrences of such incidents.







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Electricity

consumption

Electricity

consumption

Efforts to Reduce CO₂ Emissions

As moves to promote the reduction of CO₂ emissions have been gaining momentum around the world, the Japanese government has announced that it will seek a 46% reduction in CO₂ emissions in real terms by 2030, and net-zero emissions by 2050 [compared with FY2013].

In response, we have set forth the following policies in our Medium-term Management Plan.

What we should do toward 2030

 Contribute to the development of society, industry and customers

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Contribute to the reduction of environmental impact throughout the value chain

Implement further efforts to reduce environmental impact and protect the environment

— Toward the year 2050 -Aim for net-zero CO₂ emissions

Efforts to Reduce CO₂ Emissions

Use of solar power

The use of electricity is essential for our business activities. In order to reduce our environmental impact as much as possible, we are generating solar power.

Amagasaki Headquarters

At our Amagasaki Headguarters, since 2017, we have installed 1,000 m² of photovoltaic panels on the roof to generate electricity. The amount of electricity generated in FY2023 was 189,060 kWh. We sell all electricity generated to the power company by contract.



MEC EUROPE NV.

At MEC EUROPE, we installed 355.5 m² of photovoltaic power generation in January 2023 and began generating electricity. The amount of electricity generated in FY2023 was 5,640 kWh. The power generated was stored in batteries and used in-house as electricity.



Efforts to Reduce CO₂ Emissions (2)

Materiality

Transition to renewable energy

Offices in Japan

With a view to reducing CO2 emissions, we have begun to consider and address the transition to renewable energy sources, while at the same time striving to reduce our internal CO₂ emissions. With a view to achieving net-zero CO₂ emissions in the future, we concluded a contract with Kansai Electric Power to purchase environmentally friendly electricity with an emission coefficient of 0 kg-CO₂/kWh as a contract for FY2023, and decided to first cover about 40% of our offices in Japan with such electricity. In the future, we intend to maintain this contract, while also considering the volume of electricity procured.



Green power

50%

MEC EUROPE NV.

With a view to reducing CO₂ emissions, MEC EUROPE has also begun to consider and address the transition to renewable energy sources, while at the same time consuming solar power generated in-house In FY2023, we switched to green power* with an emission coefficient of 0

kg-CO₂/kWh for 50% of our usage of purchased electricity. We plan to continue to use areen power in the future.

* Green power: wind, solar, hydro, and biomass

Efforts to Reduce CO₂ Emissions (3) Support for environmental and forest maintenance activities

Promotion of carbon offsetting Contribute to society by purchasing credits

In Niigata Prefecture, we promote carbon offsetting as an "advanced global warming countermeasure" that funds CO₂ absorption activities such as forest maintenance projects and contributes to local forest maintenance. At present, seven projects have been registered.

We support the "Niigata Carbon Offsetting Program Project", and have decided to introduce carbon offsetting. In January 2024, we introduced the "Niigata Prefecture Pack", a set of various projects to contribute to Niigata Prefecture as a whole, to offset emissions in FY2022.

We intend to continue introducing such initiatives on an ongoing basis.

Niigata	ケップ温暖で				
Sado Toki no Mori Credit	Aga Yukyu no Mori Credit	Yuki no Sato Ryujin no Mori Credit	Minamiuonuma Meisui no Mori Credit	Tokamachi City Furusato no Mori-zukuri Credit	新潟県カーボン・オフセット





Reuse of Plastic Containers

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In order to make effective use of limited resources without waste, we collect polyethylene containers that our customers no longer need after chemical use. We sort containers collected from customers to determine if they can be reused, and those that can be reused are cleaned and reused by the Company and contractors.

Proper Disposal of Wastes

The amount of industrial waste generated in FY2023 was 423 tons, a decrease of 122 tons from FY2022 (down 22%). The decrease in 2022 is due to the various discharges of industrial waste as part of measures associated with the closure of the Nishinomiya Factory.

The amount of specially controlled industrial waste was 181 tons, a decrease of 77 tons from FY2022 (down 34%). The final amount of disposed industrial waste was 64.3 tons.

In FY2023, 6.2 tons of industrial waste was discharged as the last discharge before the transfer of the Nishinomiya Factory at the end of May 2023. We will continue our efforts to limit the amount of industrial waste generated, and endeavor to reduce the final disposal volume by thoroughly sorting industrial waste generated.

Environmental accounting data is available with our ESG data.

ESG data https://www.mec-co.com/en/sustainability/esg-data/



Emissions from the MEC's Supply Chain | Offices in Japan





Scope 1,	Scope 2, and	d Scope 3 Emissions	FY2022	FY2023	Increase and Decrease
Scope 1		Direct emissions	66.8 t-CO2	55.5 t-CO₂	11.3 t-CO₂ ↓
Scope 2		Indirect emissions from energy sources	1,260 t-CO2	1,621 t-CO ₂	361 t-CO₂ 🕇
	CATEGORY 5	Waste generated in operation	176 t-CO2	136 t-CO2	40 t-CO₂ ↓
Scope 3	CATEGORY 6	Business travel	39.0 t-CO2	39.1 t-CO ₂	0.1 t-CO₂ ↑
	CATEGORY 7	Employee commuting	117 t-CO2	117 t-CO ₂	0 t-CO2

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Management and Response Regarding Chemical Substance Control Information in Each Country

Because our Company's products and raw materials are chemical substances, they are subject to various domestic and international regulations.

In Japan, there are various related regulations such as the Law Concerning the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc., the Industrial Safety and Health Law, and the Fire Service Law. When exporting or importing, for example, if exporting to or from the EU, it is necessary to comply with REACH Regulation^{*1}, and if exporting to or from the U.S., it is necessary to comply with TSCA^{*2}. As the requirements of the regulations are revised according to the situation, we use the database of laws and regulations to collect and respond in a timely manner to prevent violations.

- *1 Abbreviation for Registration, Evaluation, Authorization and Restriction of Chemicals and legislation on control of chemicals within the European Union
- *2 Abbreviation for the Toxic Substances Control Act, which regulates the production and import of hazardous chemicals in the United States

Management of Chemical Substances in Products

We work hard so as to prevent unintentional contamination of products with substances that should not be included in them (prohibited substances) based on laws and regulations, industry standards, and requests from customers. We will continue to promote appropriate management of chemical substances contained in products with the cooperation of our suppliers as well as within the Company.

Policy on chemical substances contained in products

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- 1 Prevent environmental pollution, reduce environmental load, reduce waste, and promote recycling
- 2 Promote the development and improvement of environmentally friendly (less harmful) products
- 3 Comply with environmental laws and regulations and other requirements
- Ocllect and disclose the latest information, and thoroughly ensure safety management

Basic Idea of Raw Material Procurement -Promotion of CSR Procurement-

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When purchasing raw materials, we select suppliers based on clear criteria such as quality, cost, delivery time, and technical capabilities. We also attach great importance to the environmental conservation efforts of our suppliers.

When purchasing raw materials, we confirm the dangers and hazards while also complying with laws and regulations and protecting the environment.

In consideration of the natural environment and human rights, we will procure environmentally friendly raw materials and engage in activities to recycle raw materials and containers. At the same time, we will continue to endeavor to engage in responsible resource procurement and build relationships of trust with business partners that are consistent with this approach.

Number of performance evaluations in FY2023

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Safety Handling of Products.

We are developing products that take into account the need to eliminate highly toxic and dangerous substances from the design stage as much as possible.

In order to ensure the safe use of our products, we provide necessary information in accordance with regulations, such as labeling and safety data sheets (SDS). We also provide detailed explanations in technical materials and others. Internally, we familiarize our employees with the dangers and hazards of our products and educate them about safe handling.

Survey Measures for Chemical Substances Contained in Products

Because our Company products are subject to chemical substance-related regulations, each year we receive 300 to 500 replies to chemical substance surveys we have conducted on our customers to ensure that the chemical substances contained in our products do not violate applicable regulations.

In fiscal 2023, we received approximately 400 surveys and responded appropriately.



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