Report on Environmental Aspects

1. Environmental Management

(1) Proterial Group's Environmental Vision

The Proterial Group promotes "efforts toward a decarbonized society," "contribution to a resource-efficient society," and "biodiversity conservation" as the three key pillars of its environmental vision. We aim to achieve both higher quality lifestyles and a sustainable society by resolving environmental issues in collaboration with our stakeholders. The Group will implement the FY2023 Environmental Action Plan by category, at each business site, in order to reduce CO_2 emissions, use water and other resources efficiently, and minimize impacts on natural capital throughout its value chain. In addition, we have set long-term targets to achieve carbon neutrality—effectively zero carbon emissions—by 2050, an approach to realizing the vision of a decarbonized society by 2050.

Proterial Group Codes of Conduct (excerpt)

1. A Company that Contributes to Society

(1) We will contribute to resolving social issues by promoting innovative solutions, accelerating collaborative creation with partners and stakeholders, and further integrating social and environmental responsibility into our business activities.

(2) We will strive to develop technologies that contribute to social development and use them with due consideration of their impact on society.

(3) We envision a decarbonized society, a resource-recycling society, and an ecosystem preservation society. To this end, we will endeavor to reduce CO_2 emissions, use water and other resources efficiently, and minimize impacts on natural capital throughout our value chain.

(4) As a corporate citizen, we will make efforts to build a rapport with local communities and contribute to their development by working together to resolve social issues.

(2) Proterial Group Basic Policy on Environmental Conservation

Proterial Group Basic Policy on Environmental Conservation

Philosophy

Aiming to pass on the common assets of humankind in a sound state to future generations, the Proterial Group considers environmental issues as an important management priority, while striving to actively preserve global and local environments under the Proterial Group vision of "a high-performance material company that supports a sustainable society."

Slogans

- With a deep awareness that environmental protection is a major issue for all of humanity, we will fulfill our social responsibilities by striving to establish a sustainable society in harmony with the environment, regarding it as one of the essential aspects of corporate activity.
- We will contribute to society by developing highly reliable technologies and products in response to needs for environmental protection and consideration for limited natural resources.

Guidelines for action

1. Compliance with environment-related laws and prevention of pollution

We shall comply with international environmental regulations as well as the environmental laws and regulations of national and local governments and agreements. We shall establish voluntary standards where necessary to ensure compliance.
Also, we shall assess the possibility of environmental problems and strive to prevent pollution. In the unlikely event that an environmental problem arises, we shall take appropriate measures to minimize environmental impact.

2. Improving the function of the environmental management organization and enhancing supervisory function

We shall promote environmental conservation activities by establishing a group environmental management organization and operating system headed by the officer in charge of the environment, developing environment-related regulations, and setting targets for reducing environmental impact.

In addition, we shall confirm that environmental conservation activities are appropriate, reasonable and effective, and strive to continuously improve environmental management.

3. Promotion of global manufacturing while considering LCA (Life Cycle Assessment)

Aiming to reduce environmental impact at each stage of product research and development/design, production, distribution/sales, use, and disposal, etc., we shall promote global manufacturing focused on the following:
1) Environmentally friendly products, 2) prevention of global warming, 3) resource conservation/recycling and resource circulation, 4) management of chemical substances, and 5) conservation of biodiversity conservation.

4. Environmental Considerations at Overseas Offices

When manufacturing on a global basis, we shall strive to implement measures that can meet the needs of local communities, taking into consideration the impact on the local environment.

5. Education and training, and raising awareness

We shall look broadly at society and educate our employees about the importance of complying with environment-related laws and regulations and about environmental conservation to raise their awareness of the environment.

6. Information disclosure

We shall strive to disclose information about environmental conservation activities to stakeholders (interested parties) and actively communicate with them, and strive to strengthen mutual understanding and cooperative relationships.

Formulated: April 1, 2010
Revised: January 4, 2023

(3) Proterial Group's Environmental Management Promotion Structure

[1] Governance

In April 2010, our Group established the Group Basic Policy on Environmental Preservation to clarify the Group's unified approach to environmental management. In June 2021, we registered our support for the TCFD Recommendations, and in August of that year, following a report to the Board of Directors, we established a new environmental policy for "aiming for green growth while taking risks as opportunities."

The Proterial Group Environmental Committee (Group Environmental Committee, hereafter) has been established as a framework for promoting environmental activities such as climate-change countermeasures. The Group Environmental Committee is chaired by the Environment Executive Officer, and its executive office is the Environmental Strategy Department, Manufacturing & Engineering Division. Its activities are promoted in cooperation with the environmental managers of each business unit, business sites, and group companies. The Group Environmental Committee is responsible for developing environment-related regulations, setting targets for reducing environmental impact, and confirming that activities are appropriate and effective.

Policies and targets concerning environmental activities are discussed and set by the Group Environmental Committee as mid-term and annual environmental-action plans. With regard to climate-change countermeasures, the Environmental Action Plan sets targets for reducing CO_2 emissions within the Group. On the basis of those targets, energy-saving activities and the use of renewable energy are being promoted at each manufacturing site. The status of reductions in CO_2 emissions is monitored regularly, and the Group Environmental Committee meets once a year to share the results of the previous fiscal year, the status of numerical targets for the current fiscal year, and major initiatives to promote continuous improvement of activities.
In addition, the status of efforts toward environmental issues, including climate-change measures, are reported twice a year to the Executive Committee and the Board of Directors, where important issues related to climate change are also deliberated and decided.

[Status of reporting and decision-making on important climate-change-related items in FY2023]

Month/Year	Important issues related to climate change	Meeting body
April 2023	Membership of the GX League	(President's decision)
May and June 2023	Environmental strategy and status of initiatives (initiative results for FY2022, initiative policy for FY2023, update of TCFD disclosure content (review of scenarios and Scope 3 disclosure))	Executive Committee, Board of Directors
October and November 2023	Environmental strategy and status of initiatives (initiative status for FY2023, setting of GX League targets)	Executive Committee, Board of Directors
January 2024	• Revision of company regulations (review of responsibilities of officers in charge of environmental issues, etc.) • Support and participation in Keidanren Declaration for Biodiversity	Executive Committee

[2] Risk Management

The Group has established a Risk Management Committee (RMC) under the supervision of the Chief Risk Control Officer (CRCO), who is an executive officer. The function of the RMC is to identify various risks surrounding the Group, and comprehensively manage risks by summarizing the status of controls against those risks and assessing and weighting the degree to which they may manifest and their level of impact. Risks related to climate change identified by the Group Environmental Committee, corporate departments, and business divisions are reported to the RMC, as one of the risks related to environmental regulations, together with other risks. The RMC meets twice a year to share the status of risk controls and related monitoring results, and to report to the Executive Committee.

(4) Fiscal 2022–Fiscal 2024 Environmental Action Plan and Fiscal 2023 Results

The Proterial Group's Environmental Action Plan for fiscal 2022 to fiscal 2024, along with results and assessments for fiscal 2023, are summarized in the table below.

[Environmental Action Plan and FY 2023 Results]

Rating: ○ Achieved; △ 90% achieved; × Not achieved

	Item	Action Target	2022			2023			2024
			Target	Actual	Rating	Target	Actual	Rating	Target
Governance	Adhere to environmental compliance practices and reduce risks	Internal audit implementation rate	100%	100%	○	100%	100%	○	100%
	Cultivate environmental literacy	Implement education for new hires	Once	Once	○	Once	Once	○	Once
		Implement environmental auditor development training	Once or more	Once	○	Once or more	Once	○	Once or more
		e-learning attendance rate[*1]	100%	99.1%	△	100%	99.9%	△	100%

		Item	Action Target	2022			2023			2024
				Target	Actual	Rating	Target	Actual	Rating	Target
ecarbonized society	Products	Sales ratio of key environmentally conscious products		23%	22.4%	△	24%	24.4%	○	25%
	Factories	Reduce CO_2 emissions from Works	Reduce CO_2 emissions (vs. FY2015) (total)	20%	31.2%	○	20%	61.8%	○	22%
		Reduce CO_2 emissions during transportation	Reduction rate of energy consumption per transportation unit (Japan) (year-on-year)	1%	0.1%	×	1%	14.3%	○	1%
Resource-efficient society	Resource circulation	Reduce and recycle waste	Improvement in the amount of waste and valuables generated per production unit (vs. FY2010)*2	33%	33.6%	○	34%	47.0%	○	35%
			Waste landfill rate*3	11.5%	10.1%	○	11.0%	6.2%	○	10.5%
	Water resources	Improve water-use efficiency	Improvement rate of water usage per production unit (vs. FY2010)*2	33%	33.8%	○	34%	29.6%	×	35%
Preservation of ecosystems	Chemical substance	Reduce output of chemical substances	Reduction rate of atmospheric emissions of chemical substances per production unit*4	26%	23.7%	△	27%	34.0%	○	28%
	Preservation of ecosystems	Promote and contribute to activities for preservation of ecosystems		Continue activities and contribute to preservation of ecosystems through overall corporate activities		○	Continue activities and contribute to preservation of ecosystems through overall corporate activities		○	Same as FY2023
Collaboration with stakeholders		Social contribution	Community cleanup activities, Lights Down campaigns, etc.	Continue activities and reduce environmental impact from aspects other than the protection of ecosystems		○	Continue activities and reduce environmental impact from aspects other than the protection of ecosystems		○	Same as FY2023

*1. Environmental e-learning programs were redesigned into new general environmental education courses launched in fiscal 2020, after educational methods and contents (teaching materials) were reviewed. At each business site, general environmental education is conducted as usual.
*2. Amount of activity: weight;
*3. Excluding household waste, hazardous waste, and in-house landfills (landfills on the Company's sites);
*4. Amount of activity: volume handled

(5) Environmental Accounting

The Proterial Group has introduced environmental accounting to allocate corporate resources appropriately and continuously improve the efficiency of environmental investments and activities. The Group also aims to increase the understanding of its stakeholders by disclosing information about the effect and efficiency of its activities. Environmental costs include things like environment-related capital investment, equipment maintenance and administration costs, and R&D costs.

Environmental effects include economic effects measured in monetary terms and categorized under waste processing and recycling, energy conservation, and others (R&D, recycling of products and packing materials, etc.).

The results for fiscal 2023 are as follows:

[1] Environmental Costs

Our environmental costs in fiscal 2023 were 6.67 billion yen in expenses and 1.15 billion yen in investment, for a total of 7.82 billion yen. (Water-related: 0.66 billion yen in expenses; 0.25 billion yen in investment)

[2] Environmental Effects

The economic effects amounted to a total of 13.65 billion yen, primarily due to waste elimination, recycling, and energy conservation.

[3] Physical Effects

Effects in physical terms were 8,678 thousand tons from effective use of resources and 2,571 t-CO_2 (in Japan) for prevention of global warming.

[4] Results of Environmental Accounting

Scope of disclosure: The Proterial Group in Japan
Calculation period: April 1, 2023 to March 31, 2024

[Environmental Costs] (The Proterial Group in Japan) (100 million yen)

Cost classification		FY2021		FY2022		FY2023	
		Expense	Investment	Expense	Investment	Expense	Investment
Business area costs	Pollution prevention	14.2	1.2	14.7	2.4	12.8	4.0
	Global environmental preservation	18.6	1.5	14.4	9.8	9.7	6.4
	Resource recycling	34.7	0.3	25.9	0.2	23.3	0.8
	Subtotal	67.5	3.0	55.0	12.4	45.8	11.2
Upstream and downstream costs		2.4	0.0	2.4	0.0	2.5	0.0
Management activity costs		18.3	0.0	6.9	0.0	4.3	0.0
Research and development costs		9.2	0.0	11.0	0.0	9.7	0.3
Social activity costs		0.0	0.0	0.0	0.0	0.1	0.0
Greening/environmental damage costs		0.4	0.0	0.6	0.0	4.1	0.0
Total		97.9	3.0	75.9	12.4	66.7	11.5

[Environmental Effects (economic effects)](The Proterial Group in Japan)
(100 million yen)

Item	FY2021	FY2022	FY2023
Waste processing and recycling	142.8	162.5	135.0
Energy conservation	1.6	1.1	1.4
Other	2.3	0.0	0.0
Total	146.7	163.6	136.5

[Environmental Effects (Physical effects)](The Proterial Group in Japan)
(100 million yen)

Item	Unit	FY2022	FY2023
Effective use of resources	kt	8,007	8,678
Global warming prevention	t-CO_2	11,075	2,571

(6) Integrated Environmental Management System (Integrated EMS*1)

The Proterial Group has introduced ISO 14001 as its environmental management system.

We began acquiring certification for individual factories in 1997, and then built an integrated EMS at each segment of business divisions (formerly internal companies). This action was made to meet the increasing need for close cooperation with head office functions related to engineering, planning, and sales in order to comply with environmental regulations for products and expand sales of environmentally friendly products, as well as need to achieve alignment with strategic business directions in response to requirements of ISO 14001:2015 (revised in September 2015) and integration with business processes. We revised the system in order to shift to the 2015 edition and completed the shift within fiscal 2017.

The integrated EMS*1 built for each segment of business divisions (formerly internal companies) had been in operation up to fiscal 2022. The system was revised into one to be operated by each business unit in response to the related organizational change, and the new system was launched from fiscal 2023.

*1 Environmental Management System

(7) Environmental Auditing

The Environmental Strategy Department, Manufacturing & Engineering Division, conducts company-wide environmental audits in a bid to achieve thorough adherence and compliance with environment-related laws and regulations, ensure appropriate EMS management regarding the environmental action plan, and mitigate environmental risks.

In fiscal 2023, environmental affairs audits were conducted at 16 sites (ten in Japan and six outside Japan) in conjunction with internal audits. We confirmed that there were no major non-conformities requiring immediate administrative guidance. Although 68 minor non-conformities were revealed, actions to correct them are underway according to plan.

(8) Environmental Education and Awareness Promotion

The Proterial Group has set up training systems as part of our EMS, and has clearly defined roles for company-wide training and individual factory-level training, for the purpose of further improving the environmental awareness of employees as well as enhancing knowledge and skills relevant to each workplace.

[Environmental Training Systems]

Target		Description	
General education	All employees	e- learning	Eco-mind training (Proterial Group)
	On-site employees	On-site environmental education	General education on ISO14001 and environmental management performed by general employees
Professional education	New supervisor	Education	Environmental issues and workplace responsibilities
	Environmental Internal Auditors	Environmental Internal Auditor training	Environmental laws and regulations, EMS recognition and environmental skills
	Environmental officers	Environmental officer training	Education for staff responsible for environmental affairs, and comprehensive risk management
	Legally qualified personnel	Qualification-based training	Education to develop legally qualified personnel (including external training)

(9) External Communications about the Environment

[1] Participation in Exhibitions

The Proterial Group participates in various exhibitions and introduces its environmentally conscious lineup of technologies that help customers make their products more efficient, compact, and lightweight, and products that feature longer-life performance. The Group tries to show how its products contribute to the reducing of environmental burden.

[Main Exhibitions in which the Proterial Group Participated (Fiscal 2023)]

Program date	Exhibition name (location)	Major items on display
May 24–26, 2023	Automotive Engineering Exposition 2023 (PACIFICO Yokohama)	Exhibited distinctive technologies and products that contribute to the evolution of xEVs, advancement of electronic components, and improvement of environmental performance, from three categories: motors; batteries; and processes conducive to electrification in society.
June 21-23, 2023	INTERMOLD Nagoya (Port Messe Nagoya)	Exhibited solutions and services conducive to energy conservation and quality improvement to help resolve issues of customers facing requirements for labor-saving and automated processes in the manufacturing industry. Organized our exhibition on three themes: extending service life; improving processing efficiency and accuracy; and additive manufacturing technology.
July 26–28, 2023	TECHNO-FRONTIER 2023 (Tokyo Big Sight)	Exhibited advanced materials and technologies that support the advancement of motors and electronic components, from three categories: motor-related materials; battery-related materials; and materials technologies supporting manufacturing. Also, introduced our Group's history of developing motor-related materials using panels and products on display in the organizer's booth, and ran an exhibitor seminar to describe Proterial's high-performance materials that support electrification of mobility.
October 4–6, 2023	3rd Sustainable Material Expo (Makuhari Messe)	Exhibited the latest products that are environmentally friendly and aimed at realizing an affluent and sustainable society.

[2] External Awards

The Proterial Group's products and environmental activities won the following external awards in fiscal 2023 for their contribution to energy conservation and to reductions in size and weight.

[Major External Environmental Awards (Fiscal 2023)]

Business domain	Product/technology/project awarded	Title of award (Awarding body)	Reasons for award
Specialty steel	Invention of a non-furnace use steel annealing method	FY2023 National Invention Awards Asahi Shimbun Award (Japan Institute of Invention and Innovation)	In the invented steel annealing method, designed primarily for hot-die steel products, hot-worked semi-finished steel is placed in a box-type incubator at an appropriate timing in order to recuperate the steel while utilizing the latent heat of transformation for the purpose of annealing, thereby eliminating the need for use of a furnace. The award was for the benefits of the non-furnace use process, specifically reduced fuel consumption and CO_2 emissions as well as increased safety and energy conservation.
Specialty steel	DAC-X: new high-performance steel for die casting	2023 *Cho Monozukuri* Parts Grand Prize Encouragement Award (MONODZUKURI Nihon Conference, Nikkan Kogyo Shimbun)	DAC-X® die-steel is used for die-casting molds mainly to produce automotive components. Achieved both high-temperature strength and toughness by combining an alloy design that brings out high-temperature strength with a proprietary structure control process. In particular, this product was recognized for its excellent heat crack resistance against high-heat load processes, thereby helping extend the mold life and reduce mold repair man hours, which contributes to higher productivity and quality.
Power electronics materials	Invention of highly reliable insulating silicon nitride substrates and circuit boards	Chugoku Region Invention Honors for FY2023 Tottori Prefectural Governor's Award (Japan Institute of Invention and Innovation)	In recent years, as the range of applications for control circuits that handle large amounts of power has been expanding, due principally to the electrification of automobiles, demand for silicon nitride insulating substrates known for good thermal conductivity and strength has been rapidly growing for use in high-power circuit implementation. To meet the sharp rise in demand, the industry is facing a pressing need for higher productivity, which is prone to lower uniformity in density and formation of voids. This invention effectively reduced these problems, thus enabling the provision of silicon nitride substrates with high productivity and high insulation reliability.

(10) Consideration for the Preservation of Biodiversity

[1] Participation in Keidanren Initiative for Biodiversity

In February 2024, Proterial joined the Initiative based on the Keidanren Declaration for Biodiversity. We support the Keidanren Declaration for Biodiversity and Guideline, and promote global manufacturing while paying consideration to the conservation of biodiversity.

Keidanren Initiative for Biodiversity

[2] Activities for Preservation of Biodiversity

The Proterial Group's ecosystem preservation measures include tree planting and forest conservation activities, cleanup activities in areas surrounding plants, and environmental education.

[Examples of Major Ecosystem Preservation, Tree Planting, Forest Conservation, and Social Contribution Activities]

Mangrove planting activities(Proterial (Thailand) Ltd. Chonburii Factory)


Fringed water lily planting activities in Lake Kasumigaura (Tsuchiura Works, Proterial Metals, Ltd.)

Tottori Sand Dunes Cleanup (Tottori Works, Proterial, Ltd.)


Green curtain activities (Yasugi Works, Proterial, Ltd.; Santoku Corporation)