

With the Environment



We view addressing the Earth's environmental issues, including global warming, as an urgent task. Accordingly, the Maxell Group has introduced a Groupwide environmental management system and is advancing concerted efforts to address these issues.

▲ Our Environmental Management Policy

In line with its management vision of "Supporting Smart Life, Peace of Mind & Cheer around People," the Maxell Group considers environmental management to be an exceedingly important management issue. In line with the Environmental Conservation Action Guidelines, the Maxell Group will work to prevent global warming, recycle resources, and conserve ecosystems. In fiscal year 2017, we updated our environmental management systems in accordance with ISO 14001: 2015. We will further strengthen our environmental management system by responding to laws and regulations such as RoHS 2 Directive and REACH Regulations and strengthening compliance.

Greater contributions toward the realization of a sustainable society are being expected of corporations, as evinced by the Sustainable Development Goals of the United Nations and the adoption of the Paris Agreement at the 21st Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP21). Thus, as it expands businesses globally and enhances corporate value, the Maxell Group must make an even greater contribution to the preservation of the Earth's environment.

The Maxell Group intends to completely unify its environmental management in terms of strategic decision-making, management direction, and business processes, and will incorporate environmental governance into its management systems throughout the organization. This will strengthen our ability to manage opportunities and risks and more firmly secure environmental accomplishments, including improvements in environmental performance, the achievement of environmental targets, and the fulfillment of compliance obligations.

▲ Preparation of the Maxell Group's Long-Term CO₂ Reduction Plan

The Maxell Group is moving forward with energy-saving initiatives with the aim of reducing CO₂ emissions 30% compared with fiscal year 2013 levels by fiscal year 2030. With this target in mind, we have begun analyzing concrete measures as of fiscal year 2018.

▲ The Maxell Group FY2018–2020 Environmental Action Plan

In fiscal year 2016, the Maxell Group established a new environmental action plan to reinforce its independent management capabilities in anticipation of becoming a holding company. Currently, we are advancing measures based on this plan. The major differences with the previous environmental action plan are as follows.

1. In setting targets and managing progress for energy consumption, waste production, VOC emissions, and water use, we added achievement indices (per unit of net sales basis: cost/net sales) linked to business operations and performance.
2. Under the environmental policy, we arranged the measures aimed at achieving the targets outlined in the environmental action plan into 10 action goals.

In fiscal year 2018, the third and final year of the current plan, we will prepare the Maxell Group FY2018–2020 Environmental Action Plan as a medium-term plan and advance initiatives under it. The facilities and environment department will continue to work toward maximizing the Group's accomplishments, including by providing visualiza-

tions of improvements made by individual business divisions and sharing examples of success throughout the Group.

Setting intensity targets has enabled us to greatly improve levels of energy consumption, which has had a particularly large effect on business results in the two years after updating our policy. Among its four listed items, we achieved consecutive energy intensity improvements that significantly surpassed the plan's targets. We broke down energy consumption into fixed consumption and variable consumption, which visualized wastefulness. In fiscal year 2017, this led to a ¥283 million increase in earnings. In addition, we also made developments in waste intensity in parallel with our developments in energy consumption. For example, the Osaka Works improved earnings ¥7 million by introducing waste intensity targets. Such results are providing a major motivation in the implementation of the plan's measures. FY2017 saw year-on-year improvements in intensity per unit of production across all categories—namely energy, waste, volatile organic compounds (VOCs), and water use—which we use as indices for improvements to frontline operations.

Regarding biodiversity, in fiscal year 2017 we conducted a series of environmental assessments. In fiscal year 2018, we will implement conservation activities in coordination with external organizations.

Further, in fiscal year 2017 we had no major environment-related accidents, fines, or complaints.

Quantitative Action Goals^{*2}

Evaluation criteria: Target achieved Target partially achieved

No.	Action Target	Segment	FY2017		Evaluation	FY2018	FY2019	FY2020
			Target	Result		Target	Target	Target
1	Net sales ratio of eco-friendly products (%)	Japan / Overseas	95 or higher	96		95	95	95
2	Percentage of eco-friendly products registered using new assessments (including LCA) (%)	Japan / Overseas	100	100		100	100	100
3	Percentage of eco-friendly products brought to market (%)	Japan	90 or higher	100		90	90	90
4	e-learning enrollment rate (%)	Japan	100	100		100	100	100
5	CO ₂ emissions reduction rate (%) (base year: 1990)	Japan	50 or higher	64		50	50	50
6	Maintenance of zero emissions ^{*3} (target: manufacturing bases)	Japan	17	17		18	19	20
7	Energy	Plants in Japan and overseas	470 or lower	400		447	411	391
		Plants in Japan	464 or lower	414		409	387	358
	Per unit of net sales x 10 ⁻² (%)	Plants in Japan	158 or lower	141		141	134	127
8	Waste	Offices in Japan and overseas	18 or lower	16.4		18.0	18.0	18.0
		Plants in Japan and overseas	530 or lower	439		479	446	428
		Plants in Japan and overseas	542 or lower	618		611	593	575
9	VOCs	Plants in Japan and overseas	70 or higher	76.9		70.0	70.0	70.0
		Plants in Japan and overseas	240 or lower	188		208	185	184
		Plants in Japan and overseas	279 or lower	267		304	271	263
10	Water use	Plants overseas	600 or lower	529		600	579	573
		Plants overseas	556	430		487	430	417

*2 Maxell System Tech's impact values are not included for fiscal year 2017.

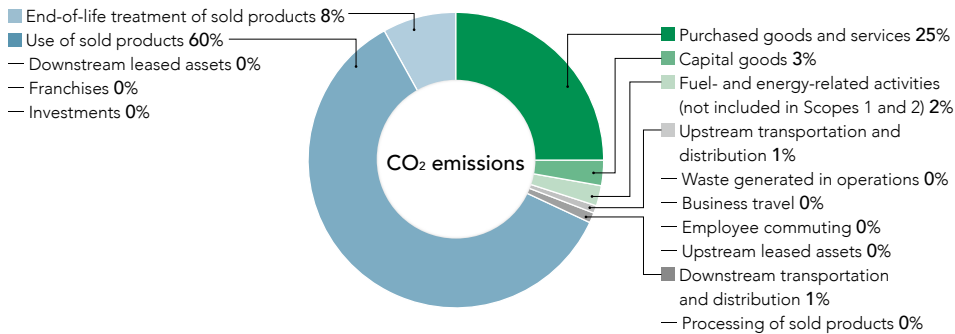
*3 Zero emissions criteria (evaluated by each worksite): final waste disposal amount of less than five tons per year and final disposal rate of less than 1% per year

With the Environment

▲ Scope 3

The Maxell Group calculates the CO₂ emissions of all of its supply chains, including Scope 3 emissions. Scope 3 emissions are indirect emissions that are not included in Scopes 1 and 2. We calculate our total Scope 3 emissions pursuant to the basic guidelines on the calculation of greenhouse gas emissions throughout supply chains that are issued by the Ministry of the Environment and the Ministry of Economy, Trade and Industry.

Breakdown of Scope 3 CO₂ Emissions by Category (Domestic only)



Business Activities and Environmental Burden

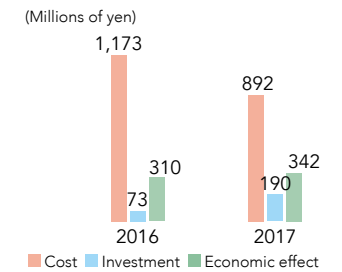
INPUT	Business Operations	OUTPUT
[Electric power] (Japan) 89,575 MWh (Overseas) 71,741 MWh	Development and Design	[CO ₂] (Japan) 48.4 kt-CO ₂ (Overseas) 51.9 kt-CO ₂
[Fuel oil] (Japan) 1,054 kL (Overseas) 21 kL	Material Procurement	[SO _x] (Japan) 0.7 kN-m ³ [NO _x] (Japan) 113.3 kN-m ³
[Gas] (Japan) 6,119 kL (Overseas) 432 kL	Production	[Waste (total emissions)] [Final disposal volume] (Japan) 4,702 t (Japan) 13 t (Overseas) 1,046 t (Overseas) 266 t
[Materials] Ferrous: 2.0 kt Non-ferrous: 3.4 kt Synthetic resins: 11.5 kt Other non-metals: 13.0 kt Other compound materials: 15.2 kt	Logistics	[Recycling] [Wastewater] (Japan) 3,787 t (Japan) 458 km ³ (Overseas) 675 t (Overseas) 251 km ³
[Water (input)] (Japan) 458 km ³ (Overseas) 251 km ³	Sales	[BOD ^{*2}] (Japan) 8.5 t [COD ^{*3}] (Japan) 1.47 t
[Subject to PRTR ^{*1}] (Japan) 1,809 t (Overseas) 122 t	Recycling / Waste Disposal	[PRTR releases and transfers] (Japan) 171 t (Overseas) 21 t

*1 Pollutant Release and Transfer Register
*2 Biochemical Oxygen Demand
*3 Chemical Oxygen Demand

Environmental Accounting

In fiscal year 2017, investment increased 160% year on year and centered on energy saving. Environmental costs decreased 24% year on year.

Environmental Cost and Economic Effect



Calculation of Products' Contribution to Curbing CO₂ Emissions

With regard to our main products, namely shavers, hair dryers, and projectors, our calculations are based on how improvements in energy efficiency help curb CO₂ emissions.

	FY2016 Curbed Amount (t/year)	FY2017 Curbed Amount (t/year)
Shavers / Hair Dryers	53	39
Projectors	141,315	171,673

Note: curbed emissions (t/year) = per-unit curbed emissions × utilization rate × contribution × quantity
per-unit curbed emissions = (energy use per base product (base fiscal year: 2005) – energy use per developed product) × CO₂ emission factor

Non-Quantitative Action Targets

The Maxell Group contributes to creating a sustainable and truly bountiful society by promoting biodiversity conservation, appropriate chemical substance management, resource efficiency, collaboration with stakeholders in environmental activities, and other similar measures.

Sustainable society

