

Building a Recycling Society

Approach

Social Background

Rapid economic growth brings with it problems such as the depletion of natural resources, the destruction of nature due to extraction of resources, and pressure on landfill sites for waste and pollution around them, accompanying the increase in resources consumed. In this situation, the 3Rs (Reduce and Reuse waste and Recycle resources) have become increasingly important in order to utilize the world's finite resources effectively. In recent years, moreover, the low effective utilization rate for waste plastic and environmental pollution caused by ocean plastic waste have become issues of global concern. To address these issues, efforts from a life-cycle perspective must go beyond the range of a single company's business activities to include suppliers and users.



Risks and Opportunities for the Casio Group

When the depletion of resources becomes more serious, the cost of raw materials increases, and there are concerns that this will have a major impact on production. Moreover, as a manufacturer, it is essential to develop eco products that help to build a sustainable world, and the expectations and demands of customers are also increasing. In this situation, delays in the development could lead to the loss of support from and selection by customers. Waste produced in business activities could also cause environmental pollution due to landfill disposal and other issues.

In order to prepare for these risks, Casio will improve product design, including the selection of materials and development of new structures that are easy to recycle during product development. This is expected to translate into cost reductions by helping to create new technologies and increasing resource efficiency. Furthermore, Casio strives to achieve zero landfill for the waste produced by its business activities.

Policy

Casio aims to help build a recycling-oriented society and is pursuing conservation of resources and resource recycling throughout the entire value chain.

In product initiatives, the company creates eco products by focusing on environmental performance from the development and design stage through recycling after use. These eco products are compact, lightweight, have a long life, and feature a recyclable design. Products that meet Casio's own standards are certified as Casio Green Star Products and Casio Super Green Star Products.

Casio strives to reduce waste and improve the recycling rate at each business site, aiming for zero landfill disposal.

Management Approach

Environmental Action Plans and Performance

Evaluation ◎: All targets met, ○: Most targets met, △: Remaining issues outweigh results, ×: No progress made

Medium and long-term targets	FY2019 Target	FY2019 Performance	Evaluation	FY2020 Targets and KPI
Increase Casio Green Star product sales ratio to 90% by fiscal 2026	Maintain the Casio Green Star product sales ratio at 70% or more	Casio Green Star Product sales ratio: 72%	◎	Maintain the Casio Green Star product sales ratio at 74% or more
Achieve 100% recycling rate for business site waste by fiscal 2031	Achieve a recycling rate for business site waste of at least 92%	Recycling rate: 86.2%	○	Achieve a recycling rate for business site waste of at least 90%
-	Keep water usage below 500,000 m3	417,900 m3	◎	Reduce water usage by 1% from FY2019 level

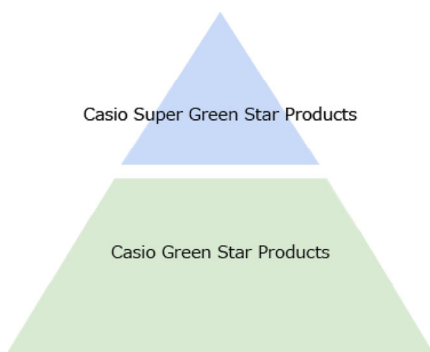
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Developing Eco-products (Casio Green Star Products)

In order to minimize the environmental impact of its products, Casio is promoting the development of environmentally friendly products in every aspect of planning and design. In 1993, Casio began product assessment in order to systematize and promote its development of eco products. New products had to undergo a preliminary assessment for their environmental impact and meet certain criteria in order to be certified as Casio Green Products. Casio has developed many environmentally friendly products.

Since fiscal 2010, Casio has offered products that achieved outstanding evaluations under more rigorous assessments of environmental performance as Casio Green Star Products. In fiscal 2017, the Group started offering Casio Super Green Star Products, which have even greater environmental performance. Since then, Casio has been working to develop even better environmentally friendly products.

Casio Green Star Products System and Assessment Items



Casio Super Green Star Products	Products that have higher environmental performance
Casio Green Star Products	Products with a particularly good assessment

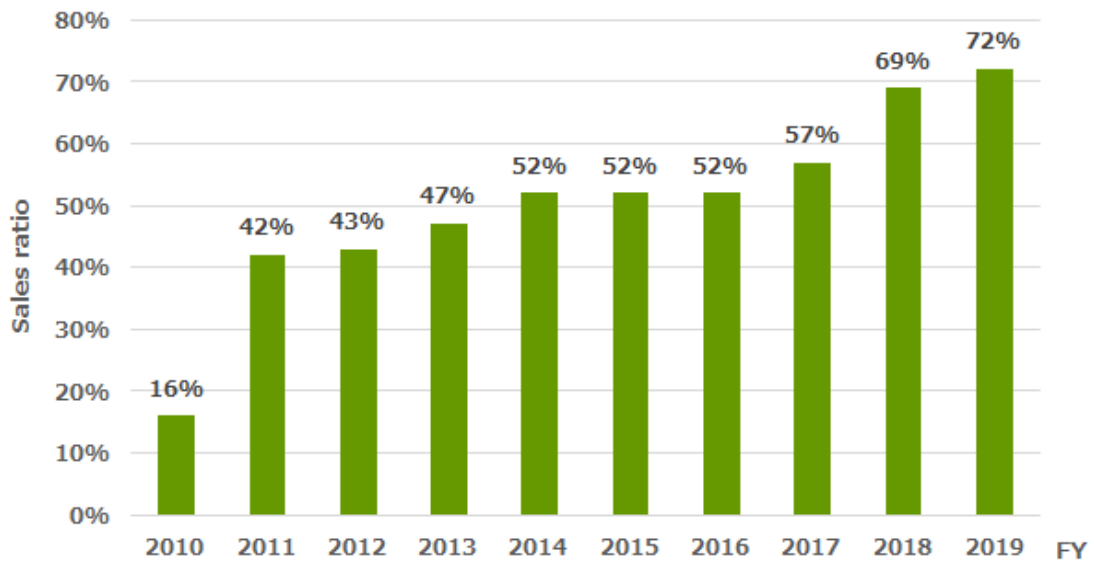
Product environmental assessment items

1.Promotes recycling
2.Designed for recycling
3.Components of products can be separated,disassembled
4.Improved recycling
5.Improved energy efficiency
6.Regulated use of chemical substances
7.Recyclability of batteries
8.Recycling label on batteries
9.Regulatory compliance
10.Components of packaging can be separated, disassembled
11.Regulated use of packaging materials
12.Preserves the natural environment

Casio Green Star Product Sales Ratio

Casio is accelerating the development of environmentally friendly products, aiming to see Casio Green Star Products make up 90% of total sales by fiscal 2026. Their share of sales reached 72% in fiscal 2019, achieving the target for that year of 70% or higher. Additionally, one new model was certified as a Casio Super Green Star Product, the highest rank of environmental products. Going forward, Casio will continue to develop products that are even more environmentally friendly.

Casio Green Products and Casio Green Star Products



Casio Super Green Star Products

So far, 36 product models have been certified as Casio Super Green Star Products. Some of the certified products (product series) are featured here.

FY2019

Scientific Calculator [Graph 35+E II](#)

Environmental Features

- Energy consumption during use reduced by 50%
- Product volume reduced by 23%
(compared to Casio's CY-802AY9 model)



FY2017

Calculator *Contains at least 70% recycled plastic (percentage of gross weight of plastic)



SL-760ECO, SL-760GT

SL-305ECO, SL-300AECO

JF-120ECO

DF-120ECO

DS-2DB

Projector *Light flux of at least 12 lm/w



XJ-F10X, F100W, F20XN, XJ-F210WN

XJ-UT351W, UT351WN

XJ-V1, XJ-V10X, V100W, V110W

Casio Green Star Products

See some products that were certified as Casio Green Star Products (photos show product examples). This mark shows that a product was developed based on the Green Star concept.

Calculator [JS-20WK](#)



Environmental Features

- Solar battery powered
- Contains at least 40% recycled plastic (gross weight ratio of plastic)

Electronic dictionary [XD-SR4800](#)



Environmental Features

- Transport efficiency increased by 122% by reduced packaging (compared to Casio's AZ-SP-4800 model)

Scientific Calculator [FX-JP900](#)



Environmental Features

- Solar battery powered
- Transport efficiency increased by 34% by reduced packaging (compared to Casio's FX-375ES model)

Label printer [EC-K10 \(Lateco \)](#)



Environmental Features

- Blank space at the beginning and end of the tape reduced by 76% compared to the conventional model (compared to Casio's KL-G2 model)
- Reduced plastic waste from cartridge disposal by using a tape refill method

Data projector [XJ-F211WN](#)



Environmental Features

- We do not use a mercury light source

Electronic musical instrument [GP-500BP](#)



Environmental Features

- Energy consumption during use reduced by 24% (compared to Casio's AP-500 model)

Watch [OCW-S5000/SHW-5100CG](#)



Environmental Features

- Solar battery powered

Handheld terminal [DT-X400](#)



Environmental Features

- Energy consumption during use reduced by 47% (compared to Casio's IT-G400 model)

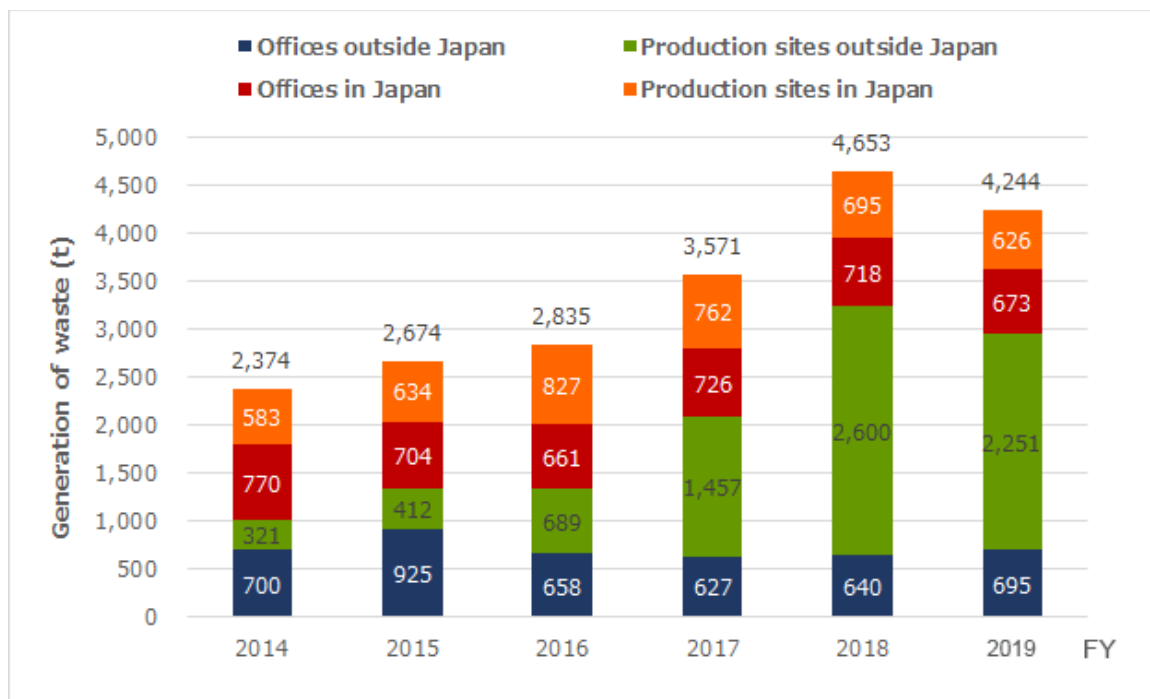
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Reducing and Recycling Waste

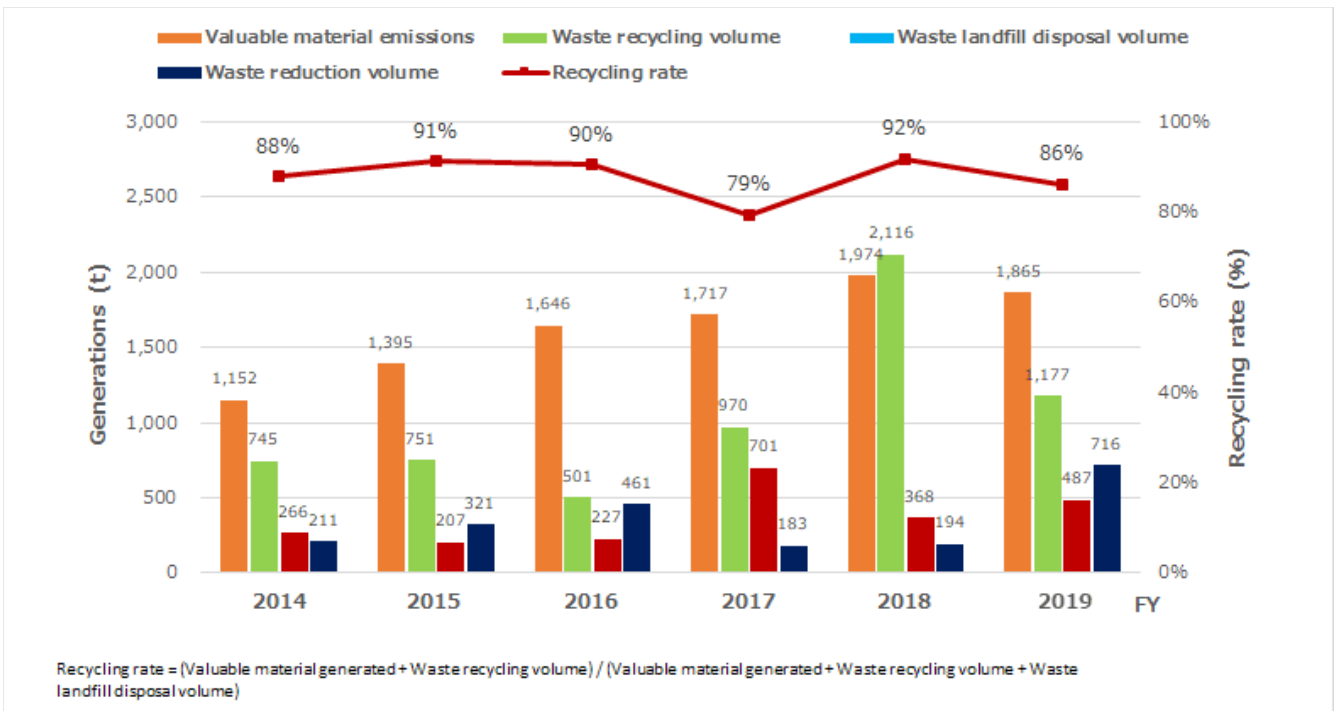
Casio is working to reduce and recycle the waste generated in its business activities. Generation of waste, etc. (total of waste and valuable material) has been on the rise since fiscal 2017, but the main reason for this is the increasing number of production sites outside Japan. In fiscal 2019, the total amount was reduced from the previous year as a result of efforts to reduce the generation of waste, especially at production sites outside Japan.

In addition, Casio has set a target recycling rate of 100%, aiming for zero landfill disposal. In fiscal 2019, the recycling rate dropped to 86% due to a decline in the amount of waste that is recycled, leaving the fiscal 2019 target of 92% unattained. The majority of landfill disposal is non-industrial waste, and it is disposed based on the administrative management of each country or region. Going forward, however, Casio will make efforts to increase its recycling rate by considering switching to recycling consignment according to the status of recycling facilities in each area.

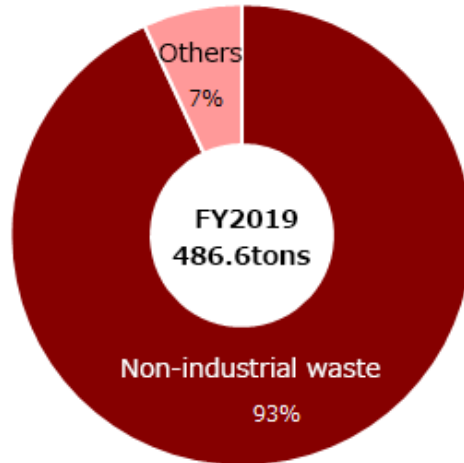
Generation of waste



Disposal breakdown and recycling rate for generation of waste, etc.



Breakdown of landfill disposal (by category)



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Collection and Recycling

This section describes Casio's initiatives in the area of product collection and recycling.

Product recycling efforts

The collection of used products includes activities that are performed to comply with relevant laws, and activities that are performed by companies voluntarily. This section introduces Casio's voluntary used-product recycling activities.

Recycling with No Waste Disposal

Casio is recovering and dismantling used tape cartridges and ink ribbon cassettes, and utilizing the materials to make the same products again. Casio actively requests the cooperation of product users in this effort.



Product Recycling in Europe

European recycling regulations include the Waste Electrical and Electronic Equipment (WEEE) Directive, the Battery Directive and the Packaging Directive.

These regulations provide a framework under which manufacturers collect and recycle end-of-life products and are obliged to bear the costs of doing so.

Casio fulfills its obligations by participating in collection and recycling organizations with government authorization.

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Reducing water usage

Based on the characteristics of Casio's business, the majority of water usage in its business activities is used by employees, with water usage for production activities limited to such things as washing a few components.

For this reason, minimization of water usage at the main sites that have continued to operate an environmental management system for many years has advanced to a certain level. Casio has therefore reached the situation where there are big fluctuations only in years with circumstances that differ from usual business activities, such as the discontinuation or new establishment of sites.

In fiscal 2019, water usage was 418,000 m³, a 17% reduction from fiscal 2018, driven by the establishment of targets for production sites and efforts to reduce water usage. Going forward, Casio will keep working to reduce water usage.

Changes in input of water resources

