

# Environmental Accounting

## Overview of Fiscal 2007 Performance

In fiscal 2007, capital investment under environmental conservation costs came to ¥941 million with the construction of a new environmentally conscious plant, featuring a super-insulated building, highly efficient machinery, green space, and a water recycling system, for Casio Micronics (Yamanashi). Environmental costs totaled ¥2,094 million for upgrading energy-saving equipment and wastewater treatment facilities, maintenance, waste and recycling, and other measures.

The follow-on economic effects were ¥121 million in cost savings and business revenue of ¥282 million from the recovery and recycling of toner and parts, resulting in a total

economic effect, including customer effects, of ¥567 million. Indicators of the environmental efficiency of sales—CO<sub>2</sub> emissions, waste output, and use of PRTR substances—all improved.

## Using Environmental Accounting to Increase Accountability

Casio will step up its use of environmental accounting with the aim of reducing medium-term environmental impact. In the near future, it will use the detailed results of the cost-benefit analysis to measure the effects of each measure taken and to move forward with the development of a group-wide feedback and accountability system.

### Fiscal 2007 performance (April 2006-March 2007)

\* Depreciation costs are included in the costs.

Category by business activity	Details	Environmental investment (¥ million)	Environmental cost* (¥ million)	Economic effect (¥ million)	Environmental conservation effect (reduction effect) (FY2006-FY2007)		Economic effect (breakdown)	
					Item	Value	Item	(¥ million)
Business area cost		935	1,491	301	CO <sub>2</sub> conversion	-2,001 ton-CO <sub>2</sub>	Energy cost savings through energy conservation activities	53
(1) Pollution prevention cost	Prevention of air pollution, water pollution, noise, vibrations, foul odors, soil pollution, and ground subsidence	773	610	—	NOx	61 tons	Water and sewerage savings and copy paper purchase savings through resource-saving activities	1
(2) Global environmental conservation cost	Prevention of global warming and ozone depletion, and energy conservation	159	579	116	SOx	15 tons		
(3) Resource circulation cost	Resource conservation efforts, reduction of industrial and general waste, recycling, treatment and disposal, and landfill	3	302	185	BOD	-2 tons	Waste treatment cost savings through resource-saving or recycling	67
Upstream/downstream cost	Green purchasing, recycling of products and packaging, recovery, and remerchandising	—	294	102	Soot and dust	0 ton		
Administration cost	Acquisition of ISO certification, environmental education of employees, environment monitoring and measurement, office administration, greening and beautification of business sites, and environmental information disclosure	4	289	—	Input of water resources	-27,000 m <sup>3</sup>	Gas and scrubbing cost savings through adoption of alternative gases	
R&D cost	R&D related to eco-products, the control of environmental impact at the production stage, and the reduction of environmental impact during the distribution and marketing stages	2	13	—	Waste	110 tons	Business revenue from recycling	282
Social activity cost	Donations to groups that protect the environment, off-site greening and beautification, and support for environmental activities conducted by community residents	—	7	—	Use of PRTR-controlled substances	26 ton	Reuse of parts and materials	83
Customer effect	Environment conservation and economic effects of customers' use of Casio products Annual power consumption reduction during product use × energy charges	—	—	164	Reduction of energy use during product use	39,000 GJ*		
<b>Total</b>		<b>941</b>	<b>2,094</b>	<b>567</b>			<b>Customer effect</b>	<b>164</b>
							<b>Total</b>	<b>567</b>

### Main details of current term (Category of measure)

Category of measure	Amount of environmental investment (¥ million)	Main details of current term
		Global warming measures
Air quality conservation	76	Foul odor countermeasures and installation of odor removal equipment.
Noise and vibration measures	6	Installation of double-paned windows in buildings.
Conservation of the aquatic, ground, and geologic environments	694	New wastewater treatment facilities.
Waste and recycling	3	Installation of rain water recycling system (measure to reduce use of public water supplies).
Natural environmental conservation	3	On-site planting
<b>Total</b>	<b>941</b>	

Category of measure	Amount of environmental investment (¥ million)	Main details of current term
		Global warming measures
Ozone layer protection measures	33	Purchase of alternative chlorofluorocarbons and non-toxic solvents.
Air quality conservation	414	Asbestos removal.
Noise and vibration measures	1	Noise and vibration measurement.
Conservation of the aquatic, ground, and geologic environments	316	Operation and management of wastewater treatment facilities.
Waste and recycling	514	Recovery and recycling of toner and parts.
Chemical substances	87	Green procurement survey to comply with environmental laws and regulations.
Natural environmental conservation	15	Environmental maintenance such as greening and beautification of on-site grounds.
Other	273	Preparation of environmental report, and ISO management.
<b>Total</b>	<b>2,094</b>	

 Detailed Data on Environmental Conservation Effects, Detailed Data on Customer Effects

## Effects of certain projects

In conjunction with group-wide efforts, Casio's business and other sites are also working independently to reduce environmental impact. Shown below are some specific examples of investments made with a view to reducing environmental impact.

### Example of effect in fiscal 2007 from investments made during fiscal 2005 and fiscal 2006

Investment theme	Category of measure	Cost-benefit formula (economic effect indicator*)	Environmental effect and investment details
<b>Adoption of COF<sub>2</sub> as an alternative gas to NF<sub>3</sub> (Kochi Casio)</b>	Global warming measures	$\frac{\text{FY2007 gas scrubbing and treatment cost-savings}}{\text{FY2005-FY2006 investment}} = 1.19$	Switched CVD cleaning gas from NF <sub>3</sub> to COF <sub>2</sub> → Greatly reduced global warming effect by 2,500 times 1. Remodeling of production equipment; mixing equipment 2. Installation of HF exhaust gas scrubber 3. COF <sub>2</sub> cylinder cabinet

\*An economic effect indicator of 1 or greater is considered a sign that the situation is favorable in terms of responsible environmental management.

### Example of forecasted effect from investments made in fiscal 2007 (environmentally conscious plant: constructed February 2007)

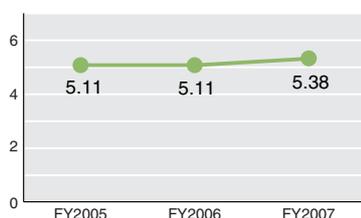
Investment theme	Category of measure	Investment amount	Environmental effect	Investment details
<b>Construction of a new environmentally conscious plant (Casio Micronics)</b>	Environmentally conscious wastewater treatment facility (conservation of the aquatic, ground, and geologic environments)	¥644 million	<ul style="list-style-type: none"> <li>Water recycling rate 40%</li> <li>Volume recovered (recycled) 14m<sup>3</sup>/h</li> <li>Total volume of wastewater 35m<sup>3</sup>/h</li> </ul>	1. Water recycling equipment 2. Industrial sludge control equipment 3. Relay tanks 4. Central monitoring equipment
	Energy-saving air conditioning and air supply equipment (global warming measures)	¥62 million	<ul style="list-style-type: none"> <li>Annual CO<sub>2</sub> conversion reduction 3,604 tons</li> <li>Annual energy reduction 9,533 MWh</li> <li>Calculated on the basis of existing plants</li> </ul>	1. Reduce the number of air compressors 2. Air conditioning and air supply (ductless air conditioning system, etc.) 3. Heat source equipment (high-efficiency turbo chiller, etc.) 4. Lighting (high-efficiency lighting fixtures, etc.)

## Environmental efficiency of sales

Casio tracks the environmental efficiency of sales (in terms of CO<sub>2</sub>, waste, PRTR substances) as an indicator of the effectiveness of its environmental conservation initiatives. The calculation used is the value of sales per ton of environmental impact. An increasing figure indicates improving environmental efficiency. Aiming to make the indicator rise, Casio will continue to implement various measures and work to reduce its environmental impact.

$$\text{Environmental efficiency of sales (CO}_2\text{)} = \frac{\text{Sales (¥ million)}}{\text{CO}_2\text{ emissions (tons-CO}_2\text{)}}$$

\*Tons-CO<sub>2</sub>: Various types of energy converted to their CO<sub>2</sub> equivalent amount and expressed in tons.

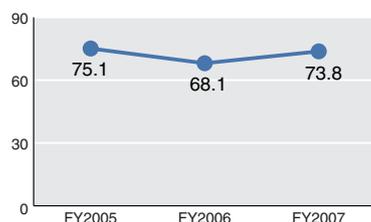


	FY2005	FY2006	FY2007
Consolidated sales (¥ million)	559,006	580,309	620,769
CO <sub>2</sub> emissions (tons-CO <sub>2</sub> )	109,432	113,482	115,483

#### Main measures to reduce CO<sub>2</sub>

Renovate air compressors  
Increase efficiency of and install inverters for fluorescent lighting ballast  
Adopt COF<sub>2</sub> as an alternative gas to NF<sub>3</sub>

$$\text{Environmental efficiency of sales (waste)} = \frac{\text{Sales (¥ million)}}{\text{Waste output (tons)}}$$



	FY2005	FY2006	FY2007
Consolidated sales (¥ million)	559,006	580,309	620,769
Waste generated, etc. (tons)	7,444	8,527	8,417

#### Main measures to reduce waste

Volume reduction treatment of waste alkalis  
Reduce waste by reducing paper use

$$\text{Environmental efficiency of sales (PRTR substances)} = \frac{\text{Sales (¥ million)}}{\text{Usage of PRTR substances (tons)}}$$

\*PRTR substances are chemical substances specified in Japan's PRTR Law (Law Concerning Reporting, etc., of Release of Specific Chemical Substances to the Environment and Promotion of the Improvement of Their Management).



	FY2005	FY2006	FY2007
Consolidated sales (¥ million)	559,006	580,309	620,769
Usage of PRTR substances (tons)	183	209	183

#### Main measures to reduce use of PRTR-controlled substances

Switch to alternative to 2-ethoxyethyl acetate  
Discontinue painting process for resins

Scope of data compilation for environmental accounting: Casio Computer Co., Ltd., and consolidated subsidiaries in and outside Japan.  
Reference guideline: *Environmental Accounting Guidelines 2005*, Ministry of the Environment, Japan