

# Environmental Accounting

Casio compiles and analyzes data regarding the cost and the effect of environmental conservation activities in its business in accordance with the "Environmental Accounting Guidelines 2005" published by the Ministry of the Environment.

## Scope and Method of Data Compilation

The accounting figures for fiscal 2004 were treated under the same methods as in previous years. As for the scope of data compilation, the coverage was expanded to all Japanese and foreign consolidated subsidiaries starting this year pursuant to the Guidelines 2005.

Accordingly, the data for fiscal 2003 were recalculated to encompass the same scope as this year's to ensure their comparability with the data included in this year's report.

## Actual Results of Fiscal 2004

As capital investment for the environment conservation Kochi Casio has switched COF<sub>2</sub> gas from NF<sub>3</sub> gas for the purpose of CVD

cleaning. The COF<sub>2</sub> gas utilization is worthy of ¥45 million. Kochi Casio is the company succeeded in mass producing of the COF<sub>2</sub> gas. It has a global warming potential one 2,500th of NF<sub>3</sub> gas, which has been conventionally used as the CVD cleaning gas, and thus contributes to the reduction of greenhouse gases.

Among investment that is included in pollution prevention cost is an expansion of the dust collection equipment of Casio Electronic Manufacturing Co., Ltd. (¥8 million). This was beneficial in reducing the volume of dust dispersal that occurs during toner production. These expenditures raised the investment in environmental equipment by ¥195 million (a 44% increase) over the levels of fiscal 2003, to ¥641 million this fiscal year.

The environmental expense grew ¥23 million, to ¥1,135 million as large expenses were incurred for the reduction of waste volume.

As the result of such aggressive investment, coupled with expenses on a focused area, the environmental efficiency indicators

relating to CO<sub>2</sub>, waste recycling, and countermeasures on specified toxic substances, which represent the locus of Casio's efforts, improved over the preceding fiscal year.

## Focus of Future Policies

Casio plans to continue to raise the level of its environmental accounting and use it as a tool for making decisions on environmental management, and aims to further improve the environmental efficiency indicators, the main part of which are countermeasures on specified toxic substances.

## Important Indicators

$$\text{Sales Environmental Efficiency (CO}_2\text{)} = \frac{\text{Sales (In millions of yen)}}{\text{Environmental Impact (CO}_2\text{ emissions: tons-CO}_2\text{)}}$$

Represents sales per ton of CO<sub>2</sub> emissions.

	FY2004	FY2003
Electronic Component Division	1.49	1.65
Electronics Equipment Division	11.93	10.99
Total	4.98	4.83

$$\text{Sales Environmental Efficiency (Waste)} = \frac{\text{Sales (In millions of yen)}}{\text{Environmental Impact (Waste emissions: tons)}}$$

Represents sales per ton of waste emissions.

	FY2004	FY2003
Electronic Component Division	25.50	22.97
Electronics Equipment Division	145.17	147.55
Total	75.09	66.40

$$\text{Sales Environmental Efficiency (PRTR)} = \frac{\text{Sales (In millions of yen)}}{\text{Environmental Impact (Volume of use of PRTR-specified substances: tons)}}$$

Represents sales per ton of PRTR-specified substance use.

	FY2004	FY2003
Electronic Component Division	664.45	750.83
Electronics Equipment Division	28,525.03	18,622.68
Total	3,054.68	2,927.35

## Examples of Projects Achieving Results from Environmental Investment

At Casio, efforts to reduce environmental impact are made both at the corporate level and at the levels of individual business and manufacturing sites. Specific examples of investment that led to reductions in environmental impact which were implemented one a site-by-site basis in fiscal 2004 are shown here as the "Projects Achieving Results from Environment Investment."

Investment Theme	A formula to calculate the cost vs. effects (unit: ¥1,000) (Economic effects)	Implemented Work
Free Cooling System	$\frac{4,284}{6,000} = 0.714$ (The amount of reduction in power usage / year) / (The amount of investment)	Implemented as part of the re-modeling of the cold water system, including an additional installation of freezers, which was part of an expansion of the Electronic Component Y3 Line.
Installation of Volume Reduction Device	$\frac{24,000}{43,000} = 0.558$ (Annual cost of development effluent disposal) / (The amount of investment)	A reduced capacity device was installed in order to reduce the cost of treating used development effluent.

\* The economic effects should ideally be at least 1. However, a project is deemed to be environmentally managed if the figure, when multiplied by the number of years of depreciation, is 1 or higher.

Investment Themes	Investment Amounts	Effects (Environmental Effects)	Implemented Work
A reduction of CO <sub>2</sub> and energy conservation through reconstruction of heat source system (cold and hot water generator)	35,870 (thousand yen)	<ul style="list-style-type: none"> <li>● An annual reduction in the volume of CO<sub>2</sub> (from the previous years) 1,519 tons (5,492 → 3,973)</li> <li>● An annual reduction in the cost of energy: ¥1,610 thousand</li> </ul>	The heat source system was upgraded and reconstructed to maintain the air conditioned environment of a clean room (efficiency improvement and a fuel replacement from Special Bunker A fuel oil to city gas) to reduce environmental impact.
Introduction of an alternative gas for NF <sub>3</sub> (COF <sub>2</sub> )	45,000 (thousand yen)	<ul style="list-style-type: none"> <li>● Impact on global warming: a drastic reduction to one 2,500th.</li> </ul>	NF <sub>3</sub> that had been used as a CVD cleaning gas was replaced with COF <sub>2</sub> (COF <sub>2</sub> : Global warming coefficient: 1, ozone layer destruction coefficient: 0)

## Report of the Actual Results of FY 2004 \* Please refer to page 1 for details of the business units encompassed.

Items	Environmental Conservation Cost												Economic effects*						Quantities														
	Capital Investment						Environment-related Cost*						Capital Investment			Environment-related Cost			Quantities														
	Electronic Component Division		Electronics Equipment Division		Total		Electronic Component Division		Electronics Equipment Division		Total		Results of the Electronic Component Division		Results of the Electronics Equipment Division		Total Actual Results		Unit	FY2004		FY2003		Difference									
Costs within Business Areas	473	423	50	132	23	109	605	446	159	360	336	24	196	223	▲27	556	559	▲3	Global Warming Counteractions	148	122	270	20	7	27	Total Energy Input	Crude Oil Equivalent (KL)	10,965	41,497	9,384	39,266	1,581	2,231
Breakdown	314	238	76	8	8	322	238	84	205	151	54	12	3	9	217	154	63	Ozone Layer Protection			8	8	8	Water Resource Input	thousand m <sup>3</sup>	464	2,551	433	2,454	31	97		
Global Environmental Conservation Cost	82	165	▲83	122	15	107	204	180	24	7	14	▲7	7	21	▲14	14	35	▲21	Atmospheric Environmental Conservation	28		28	23	5	28	Greenhouse Gas Discharge	CO <sub>2</sub> ton-CO <sub>2</sub>	37,548	74,607	36,894	71,503	654	3,104
Resource Recycling Cost	77	20	57	2	8	▲6	79	28	51	148	171	▲23	177	199	▲22	325	370	▲45	Noise and Vibration Countermeasures					1	1	Specified Chemicals Emissions	SF <sub>6</sub> ton	0	16,551	0	15,248	0	1,303
Upstream and Downstream Costs	6		6	5		5	11		11	12	12	265	184	81	277	184	93	Recycling	52	272	324	Total Waste Generation	(ton)	3,085	4,359	2,749	5,135	336	▲776				
Management Activity Cost										74	58	16	168	142	26	242	200	42	Reuse	17	250	267	(the Landfill Disposal Portion)	thousand m <sup>3</sup>	1,051	11	398	19	653	▲8			
Research and Development Cost				25		25	25		25	4	4	53	106	▲53	57	106	▲49	Sell out of valuable resource	35	22	57	Total Effluent Volume	BOD ton	371	2,045	347	1,959	24	86				
Information Disclosure and Social Contribution Costs										21	▲21	3	19	▲16	3	40	▲37	Reduction of Waste Disposal Cost	19	2	21	BOD ton	7	19	13	18	▲4	1					
Other Costs										23	▲23				23	▲23	Other				15	15	Other Emissions	NOx ton	83	16	70	20	14	▲4			
Total	479	423	56	162	23	139	641	446	195	450	438	12	685	674	11	1,135	1,112	23	Chemical Substances	6	28	34	3	89	92	SOx ton	23	8	22	9	1	▲1	
										21	▲21	3	19	▲16	3	40	▲37	Preservation of the Natural Environment				7	7	Dust ton	2	1	3	1	▲1	0			
										23	▲23				23	▲23	Other				86	203	289	Energy Consumption during Use	GJ	2,871	0	3,074	0	▲203	0		
										450	438	12	685	674	11	1,135	1,112	23	Wastes and recycling							Cyclic Usage Volume of Used and Recovered Products, Containers and Packages	ton	12,350	483	12,425	393	▲75	90
										450	438	12	685	674	11	1,135	1,112	23	Global warming counteractions							Volume of Containers and Packages Used	ton	11,676	607	11,654	501	22	106

\* Depreciation expense relating to fixed assets is not included in the computation of the environment-related cost  
\* For personnel cost, the average unit cost was used for the computation.

(Unit: ¥1 million)

