Environmental Report

CITIZEN ELECTRONICS CO., LTD. Environmental Report 2006

Environmental Targets and Achievements in FY 2005 Environmental Targets for FY 2006

•Achievement of production of environment-friendly products •Promotion of energy saving activities and reduction in CO₂ emissions

- ·Reduction in chemical substances to be used
- ·Promotion of waste reduction activities
- ·Implementation of division-specific environmental activities
- ·Improvement of affiliated companies' environmental systems

Environmental Accounting

·Environmental protection costs

- $\cdot Investments$ for environmental protection
- ·Economic effects accompanying environmental
- protection measures
- ·Environmental protection effects

Environment-Friendly Products

Resource saving
Energy conservation
Extended life
Space saving
Introduction of "Green Materials"

Energy Conservation Activities

•Power and fuel consumption amounts •Amount of CO₂ emissions

Waste Reduction Activities

•Waste amount, valuable resources amount, and their recycling rate

Chemical Substance Management

Released and transferred quantities of applicable substances under the PRTR Law

Environmental Education and Training

•Trends and measures in environmental issues •Education and training for internal auditors

As a Member of the Community

•Tree-planting activity •Mt. Fuji clean up campaign

Environmental Targets and Achievements in FY 2005, Environmental Targets for FY 2006

Although completion of some issues was a little delayed, we have achieved the targets in each area without exception. Please refer to the following pages for activity details. We have recently added "Enhanced Development of Environmental System Including Our Affiliated Companies" to the targets in FY 2006 and working towards its achievement.

	Targets in FY 2005	Achievement	Evaluation		Targets for FY 2006
1	Enhancement of green procurement Enrichment of environment-friendly products	Achievement rate: 100% Achievement rate: 93%	0	1	 Further enhancement of green procurement Recheck of substances to be totally abolished and accomplishment of abolition Reorganization and implementation of procured material verification system Improvement of procurement source evaluation Enrichment of environment-friendly products Review, creation, and introduction of standards for environment-friendly products
2	 Promotion of energy saving activities and reduction in CO₂ emissions Promotion of introducing energy monitoring system Implementation rate: 100% Review of compressed air usage in all divisions Target: 2 cases of improvement implementation per year 	Implementation rate: 100% Achievement rate:100%	0	2	Promotion of energy saving activities and reduction in CO ₂ emissions •Promotion of operation energy monitoring system
3	Reduction in use of solvents, cleaning liquids, chemical agents, etc. Target: 1 case of improvement implementation per year	Achievement rate:100%	O		(Evolving in "3. Implementation of division-specific environmental activities")
4	Specification and reduction of targeted wastes in all divisions Target: 3% reduction compared with achievements in FY 2004	Achievement rate: 98%	0		(Evolving in "3. Implementation of division-specific environmental activities")
5	Implementation of division-specific environmental management activities •Themes related to business activities in terms of environmental burdens •Themes that lead to environmental protection activities Target: at least 1 theme	Achievement rate: 90%	0	3	Implementation of division-specific environmental activities resulting in environmental protection •Themes related to activities in terms of environmental burdens •Themes that lead to environmental protection activities Target: at least 1 theme
6				4	Enhanced development of environmental system including our affiliated companies

[Evaluation]

©:Achievement rate equal to more than 100% C:Achievement rate equal to more than 80%, but less than 100% Achievement rate less than 80%

Environmental Target Progress Debriefing





Environmental Accounting

Environmental protection costs

The total cost has increased by approximately 20% compared with FY 2004 because of the increase in R&D costs for such products as LED lighting that can be used with the expectation of savings in energy. The other costs are almost the same.



Investments for environmental protection

Compared with the last fiscal year, the amount of investments was almost doubled because of increased investment in R&D facilities for such products as LED lighting.



Economic effects accompanying environmental protection measures

The economic results are to almost the same level as in the last fiscal year mainly because of the gain through the sale of valuable resources.



Environmental protection effects

The effects are shown below. Please refer to the following pages for further information.

	▲ indicates reduction									
	Description of effect		Type of indicator	Unit	FY 2004	FY 2005	Change			
	Effects corresponding to costs incurred within business area	Effects relating to resources invested	Energy consumed	GJ	183,031	188,020	4,989			
		in business activities	Chemical substances used	ton	6	3	▲3			
			CO ₂ emissions	ton-CO2	7,037	7,267	230			
			Wastes	ton	290	182	▲ 108			
			Valuable resources	ton	44	87	43			
			Recycling rate	%	99	99	0			

Environment-Friendly Products

We are making efforts to produce environment-friendly products through the use of the polyhedral approach including "Energy Conservation", "Extended Life", and "Introduction of Green Materials". We have reviewed the standards of environment-friendly products with the design subcommittee in the central role and enhanced our level of consciousness about environment-friendly products by introducing these standards.



Energy Conservation Activities

In FY 2005, on the one hand, energy consumption was increased because of facility expansion as a result of launching new products. On the other hand, energy conservation was successfully achieved thanks to the improvement in operating compressors and other factors. The introduction of the total energy monitoring system in FY 2006 will allow us to further promote energy conservation with these compressors.



Total energy monitoring system



Pressure sensor







I/O unit (PLC panel)

Pre-filter and after-filter

Waste Reduction Activities

Waste amount, valuable resources amount, and their recycling rate

We have succeeded in reducing the waste amount (also reducing the processing cost) as well as in generating economic benefits by adding value to waste plastic discharged by the injection molding process. Improvement in the cleaning process has provided reduction in waste liquid, too.



The number with % indicates the recycling rate of the total amount consisting of waste and valuable resources.

Note:

•Recycling rate (%) = (recycled resource amount + valuable resource amount) x 100/(waste amount + valuable resource amount)

- •Valuable resource: Resources producing a reported profit even after subtracting the transportation expense from the proceeds of the sale of waste
- ·Recycled resource: Resources that are recycled existing in waste

Chemical Substance Management

Released and transferred quantities of applicable substances under the PRTR Law

Until FY 2003, we used almost 1 ton of HCFC-141b per year and approx. 3 tons of dichloromethane per year, but we worked on eliminating the use of these chemicals completely, and as a result, we have never used these chemicals again since FY 2004. The following table shows the results of released and transferred quantities of substances applicable under the PRTR Law in FY 2005. None of these values were required to be reported to the prefectural government. We are conducting our activities such as reviewing the frequency of using the cleaning liquid in all divisions with the target of further reduction in the use of chemical substances.

								in kg	
	Substance								
Contained substance	Substance No. Annual handling amount	Annual	Amount transferred as products	Amount discharged into environment					
		handling		Total amount	Amount transferred as waste	Amount released into the air	Amount released into the water	Amount released into the soil	
Antimony and its compounds	25	27	7	20	20	0	0	0	
Bisphenol A epoxy resin (liquid type)	30	3	2	1	1	0	0	0	
Silver and its water-soluble compounds	64	2	1	1	1	0	0	0	
Poly (oxyethylene) = nonylphenyl	309	9	0	9	0	0	9	0	
Manganese and its compounds	311	23	9	14	14	0	0	0	

Environmental Education and Training

The environmental management representative reported "Trends and Measures in Environmental Issues" (changes in business activities and environmental impact in Citizen Electronics, customers' trends and requests, action policies of Citizen Group companies, etc.) at the Environmental Target Progress Debriefing attended by the president, directors, managers, and section chiefs as a main event. We have provided our internal auditors with internal auditing education and training and held an explanatory meeting for the environmental secretariats in all divisions under the ISO 14001:2004 revisions.

Trends and measures in environmental issues



Education and training for internal auditors



As a Member of the Community

We have encouraged our new employees and employees' especially families to participate in "the Tree-Planting Activity" and "the Mt. Fuji Clean Up Campaign", two of the biggest environmental protection activities in the local community, to educate our new employees about environmental activities, to improve inter-family relationships, and to enhance communication between Citizen Electronics people and the local community.

Tree-planting activity / Mt. Fuji clean up campaign

