



CITIZEN ELECTRONICS CO., LTD. Environmental Report 2008

●●●●● Environmental Targets and Achievements in FY 2007, Environmental Targets for FY 2008

- Achievement of manufacture of environment-friendly products
- Promotion of energy-saving activities and reduction in CO₂ emissions
- Implementation of division-specific environmental activities
- Improvement of the environmental management system in the Citizen Electronics Group companies, etc.

●●●●● Environmental Accounting

- Environmental protection costs
- Investments for environmental protection
- Economic benefits accompanying environmental protection measures
- Environmental protection effects

●●●●● Environment-Friendly Products

- Resource conservation
- Energy conservation
- Extended life
- Space saving
- Introduction of "Green Materials"
- Evaluation of environment-friendly products

●●●●● Energy Conservation

- Power and fuel consumption
- CO₂ emissions volume

●●●●● Waste Reduction

- Waste volume, amount of valuable resources, and their recycling rate

●●●●● Chemical Substance Management

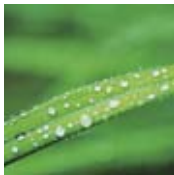
- Released and transferred quantities of substances relevant to the PRTR Law

●●●●● Environmental Education and Training

- Presentation on management system for environmental controlled substances
- Education of internal auditors

●●●●● As a Member of the Community

- 1 Million Woods Tree-Planting Movement
- Mt. Fuji Clean Up Campaign



Environmental Targets and Achievements in FY 2007, Environmental Targets for FY 2008

We have almost reached the targets set for FY2007 as below. We will continue to work toward targets for FY 2008 focusing on our achievement in FY 2007. Please refer to the following pages for information.

| | Targets in FY 2007 | Achievement | Evaluation |
|---|--|--|----------------------------|
| 1 | <p>1) Enrichment of environment-friendly products</p> <ul style="list-style-type: none"> •Proportion of all new models that are environment-friendly 50% (FY 2007) <p>2) Environmental quality accident rate of "zero"</p> <ul style="list-style-type: none"> •Accident rate of "zero" •Enhancement of source material management <p>Activity plan achievement rate: 100%</p> | <p>Achievement rate: 100%</p> <p>Achievement rate: 100%</p> <p>Achievement rate: 80%</p> <p>(Verification of new and existing materials by X-ray fluorescence)</p> | <p>◎</p> <p>◎</p> <p>○</p> |
| 2 | <p>Promotion of energy-saving activities and reduction in CO2 emissions</p> <ul style="list-style-type: none"> •Consideration and introduction of energy-saving measures such as compressor control measures | <p>Achievement rate: 100%</p> | <p>◎</p> |
| 3 | <p>Implementation of division-specific environmental activities and contributions to environmental protection</p> <ul style="list-style-type: none"> •Themes related to business targets (policy management) in terms of effects on reducing environmental burden •Themes that lead to environmental protection activities <p>Target: at least 1 theme</p> | <p>Achievement rate: 85%</p> <p>(E.g. reduction in materials and indirect materials by reuse of packages and trays, and by process improvement)</p> | <p>○</p> |
| 4 | <p>Enhanced development of environmental system including the Citizen Electronics Group companies and companies used for outsourcing</p> <ul style="list-style-type: none"> •Enhancement of support for activity promotion | <p>Achievement rate: 85%</p> <p>(E.g. aiding Citizen Electronics Timel acquire certification of ISO 14001)</p> | <p>○</p> |

| Targets for FY 2008 |
|--|
| <p>1) Enrichment of environment-friendly products</p> <ul style="list-style-type: none"> •Proportion of all new models that are environment-friendly 100% (FY 2008) <p>2) Environmental quality accident rate of "zero"</p> <ul style="list-style-type: none"> •Accident rate of "zero" •Enhancement of source material management <p>Activity plan achievement rate: 100% (Response to customer requirements and laws and regulations, such as Halogen Free and REACH)</p> |
| <p>Reduction in global greenhouse gases</p> <ul style="list-style-type: none"> •1% reduction in CO2 emissions as compared with 2007 levels |
| <p>Implementation of division-specific environmental activities and contributions to environmental protection</p> <ul style="list-style-type: none"> •Themes related to business targets (policy management) in terms of effects on reducing environmental burden •Themes that lead to environmental protection activities <p>Target: at least 1 theme</p> |
| <p>Enhanced development of environmental system including the Citizen Electronics Group companies and companies used for outsourcing</p> <ul style="list-style-type: none"> •Enhancement of support for activity promotion and follow-up (E.g. aiding domestic companies used for outsourcing and plants in China acquire certification of ISO 14001) |

[Evaluation]

◎: Achievement rate equal to more than 100% ○: Achievement rate equal to more than 80%, but less than 100% △: Achievement rate less than 80%

Environmental Target Achievement Debriefing

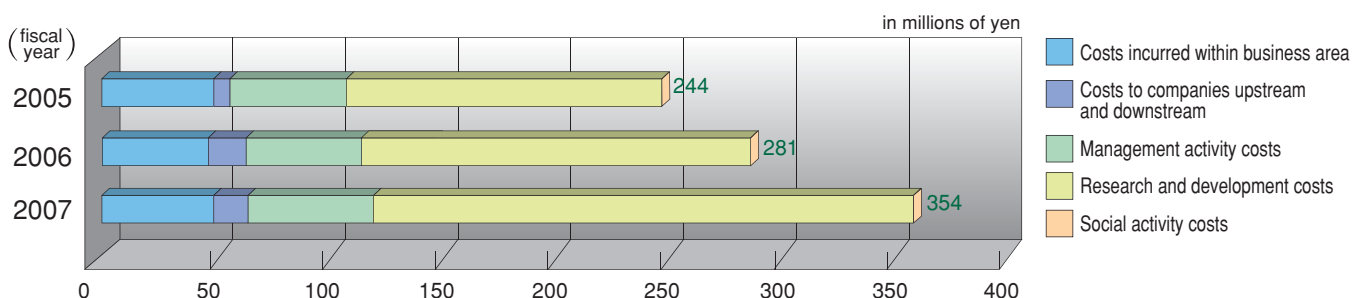




Environmental Accounting

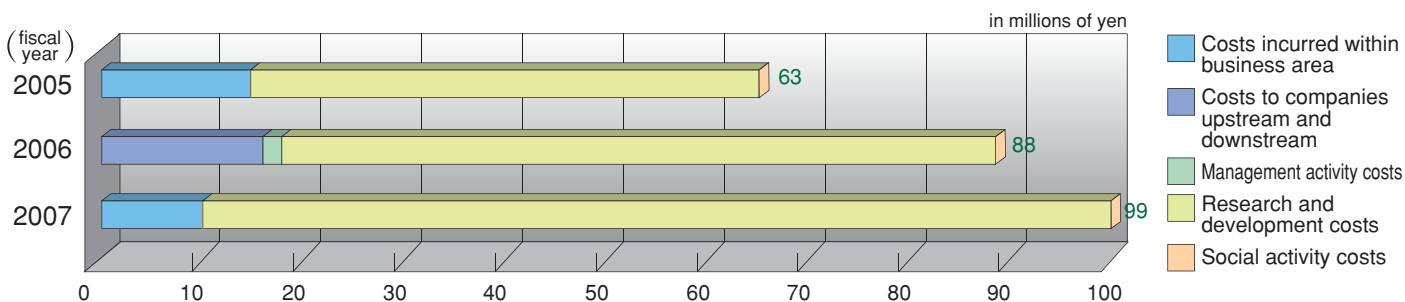
● Environmental protection costs

The total cost has increased by approximately 25% compared with FY 2006 because of significant increase in R&D costs.



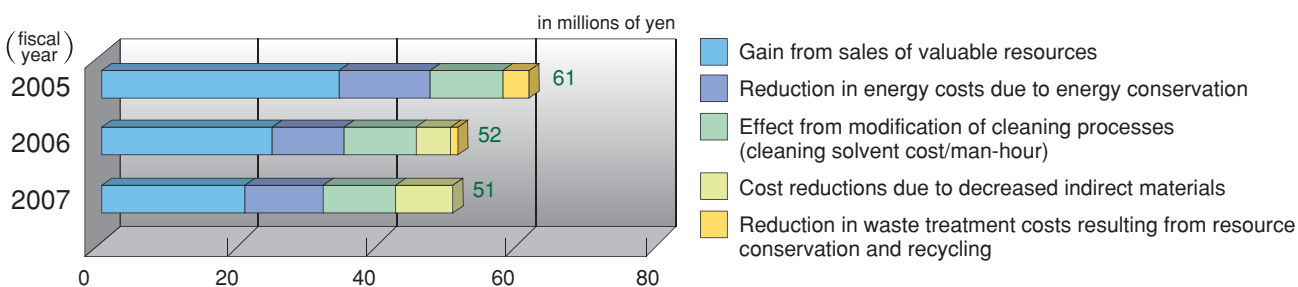
● Investments for environmental protection

While the costs to companies upstream and downstream have decreased, the total cost has increased by approximately 12% because of increased R&D costs including the investment for R&D in LED lighting and other products that were started in FY 2006.



● Economic benefits accompanying environmental protection measures

The economic benefits were generally the same level as those of the previous year. Gain from sales of valuable resources is tending to decrease and cost reductions in indirect materials have increased compared with FY 2006.



● Environmental protection effects

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

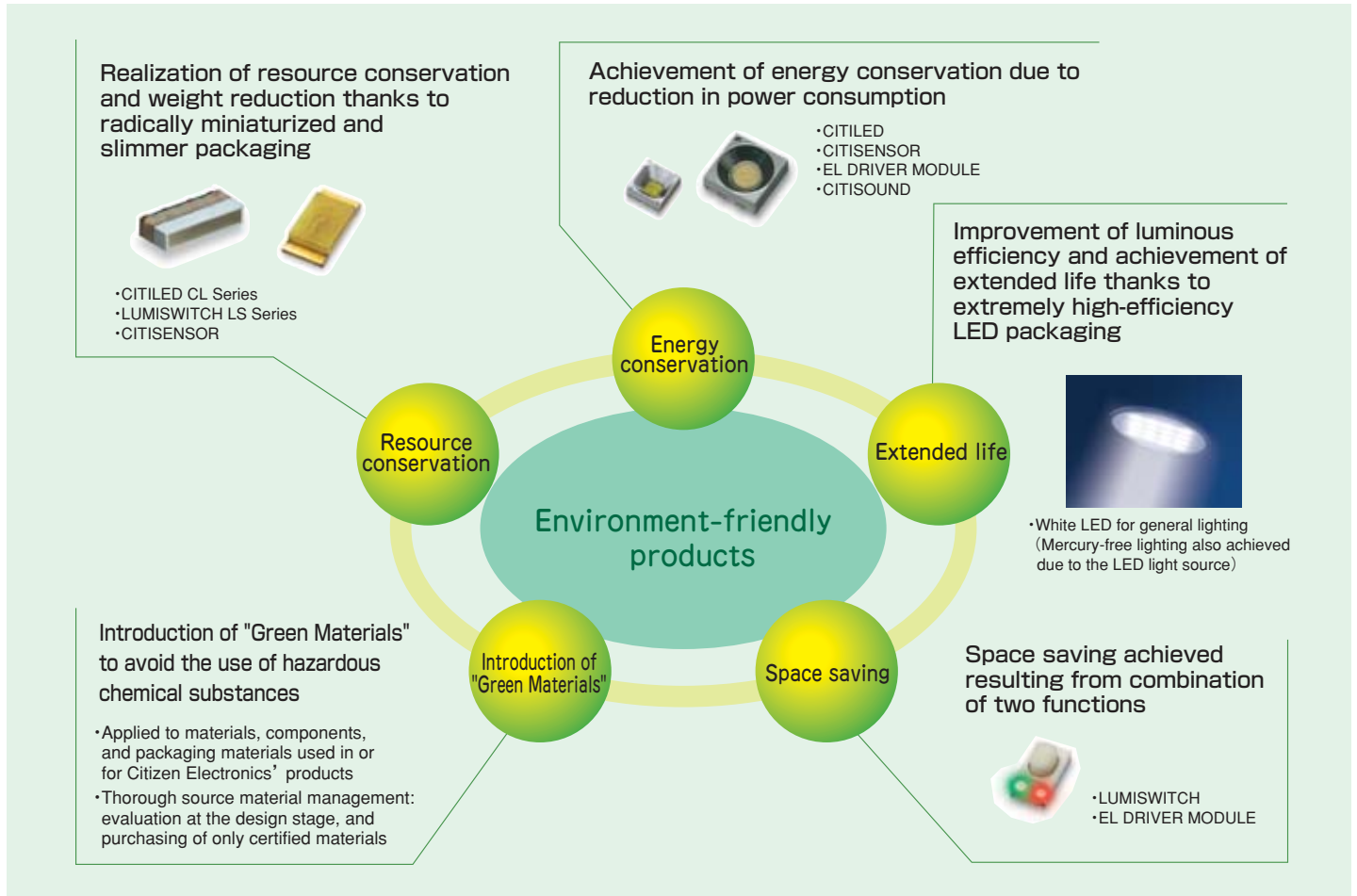
▲ indicates reduction

| Description of effect | | Type of indicator | Unit | FY 2005 | FY 2006 | FY 2007 | Change |
|--|---|---------------------------|---------------------|---------|---------|---------|--------|
| Effects corresponding to costs incurred within business area | Effects relating to resources invested in business activities | Energy consumed | GJ | 188,020 | 153,729 | 180,651 | 26,922 |
| | | Chemical substances used | ton | 3 | 4 | 3 | ▲1 |
| | | CO ₂ emissions | ton-CO ₂ | 7,267 | 6,180 | 7,156 | 976 |
| | | Waste | ton | 182 | 191 | 229 | 38 |
| | | Valuable resources | ton | 87 | 81 | 90 | 9 |
| | | Recycling rate | % | 99 | 99 | 99 | 0 |

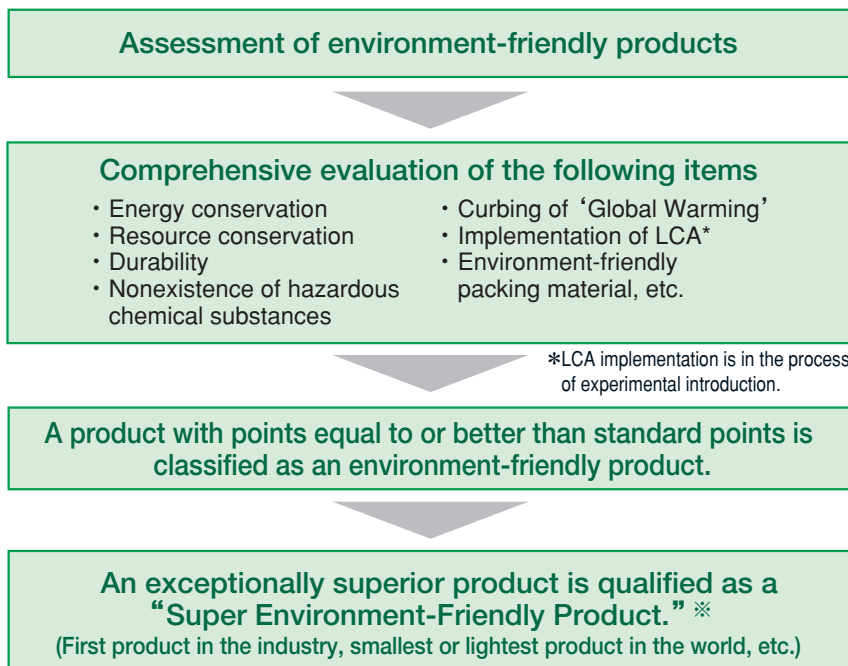


Environment-Friendly Products

We are working to produce environment-friendly products with our polyhedral approach including our Energy Conservation and Extended Life programs. We have also introduced the evaluation criteria for environment-friendly products since FY 2007 to quantitatively measure the effect of environment-friendliness with regard to new products. In addition, we are aiming to reduce the environmental burden by using LCA data.



● Evaluation flow of environment-friendly products



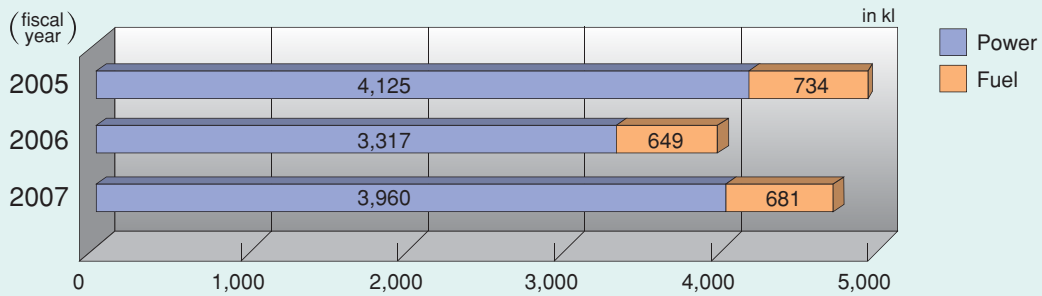
※ Subcommittee of Citizen Group (qualification system established in 2008)



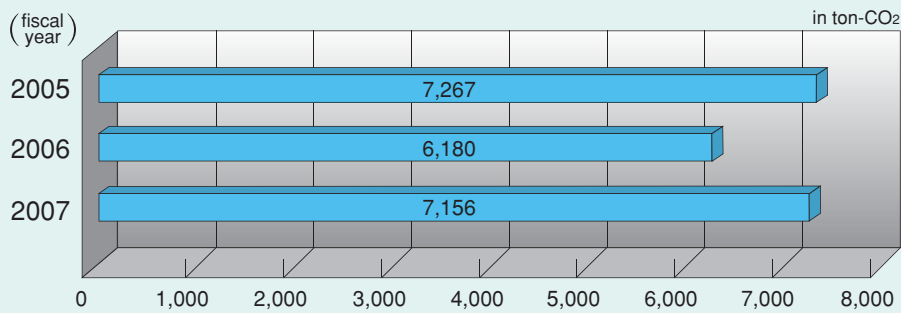
Energy Conservation

Although we have a certain degree of energy conservation due to the energy-saving operation of compressors, energy consumption has increased by approximately 17% in crude oil equivalent due to augmentation of equipment and extension of buildings, etc.

● Power and fuel consumption (equivalent in crude oil)



● CO₂ emissions volume



● Consideration and introduction of energy-saving measures for compressors

We conserve energy by forcibly inducing low-temperature and dense air into the compressor room to decrease load on compressors.



Effects (theoretical figure: temperature difference of 10°C)

CO₂ reduction ▲19 ton-CO₂/year

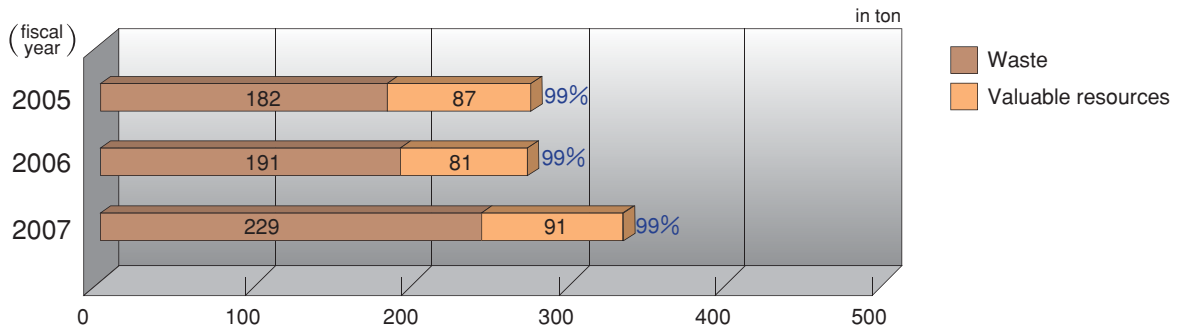
Power reduction ▲49.5 Mwh/year (▲3.1%)



Waste Reduction

●Waste volume, amount of resources, and their recycling rate

We treat reduction of waste and improvement of the recycling rate as maintenance activities. However, due to the increase in production volume, waste has increased by approximately 20% and valuable resources by approximately 12% in FY 2007.



※ The percentages indicate the recycling rate of the total amount consisting of waste and valuable resources.

Note:

- Recycling rate (%) = (amount of recycled resources + amount of valuable resources) x 100 / (waste volume + amount of valuable resources)
- Valuable resources: Resources with profit reported even with subtracting the transportation expense after selling the waste
- Recycled resources: Resources existing in waste that is recycled



Chemical Substance Management

●Released and transferred quantities of substances relevant to the PRTR Law

The following table shows the results of released and transferred quantities of substances in FY 2007 that are relevant to the PRTR Law. None of them required reporting to the prefectural government.

in kg

| Contained substance | Substance | | | | | | | |
|--|---------------|------------------------|-----------------------------|------------------------------------|-----------------------------|------------------------------|--------------------------------|-------------------------------|
| | Substance No. | Annual handling amount | Amount released as products | Amount discharged into environment | | | | |
| | | | | Total amount | Amount transferred as waste | Amount released into the air | Amount released into the water | Amount released into the soil |
| Silver and its water-soluble compounds | 64 | 40 | 31 | 9 | 9 | 0 | 0 | 0 |
| Bisphenol | 30 | 23 | 17 | 6 | 6 | 0 | 0 | 0 |
| Antimony | 25 | 33 | 33 | 0 | 0 | 0 | 0 | 0 |
| Ethylene glycol | 43 | 1 | 0 | 1 | 0.8 | 0.2 | 0 | 0 |
| Ethylene glycol monomethyl ether | 348 | 2 | 0 | 2 | 1.7 | 0.3 | 0 | 0 |



Environmental Education and Training

With introduction of the management system (database) for environmental controlled substances, we organized presentations for the relative personnel of each division. We also conducted auditor education to increase the number of internal auditors and enhance their caliber.

Presentation on database for management of environmental controlled substances



Education of internal auditors



As a Member of the Community

The Yamanashi Prefecture-sponsored "1 Million Woods Tree-Planting Movement" was held in May FY 2007 at Oshino-mura where we planted Japanese cypress and alder with local residents and volunteers. New employees take part in this event every year as environmental education. Our company is located at the base of Mt. Fuji, and more than 50 of us, including employee family members, attended the "Mt. Fuji Clean Up Campaign" sponsored by Mt. Fuji Environmental Cleanup Movement Association again in FY 2007, where we picked up trash on the route of the climb near the 5th station of Mt. Fuji.

1 Million Woods Tree-Planting Movement (May 12, 2007)



Mt. Fuji Clean Up Campaign (August 11, 2007)

