Environmental Data Book 2008

Panasonic
ideas for life

Company profile

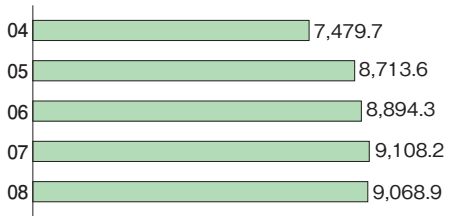
Matsushita Electric Industrial Co., Ltd.

Head office:	1006 Kadoma, Kadoma City, Osaka 571-8501, Japan Tel: +81-6-6908-1121
Date of incorporation:	December 15, 1935
Date of foundation:	March 7, 1918
Representative:	Fumio Ohtsubo, President
Capital:	JPY 258.7 billion

Panasonic website: panasonic.net

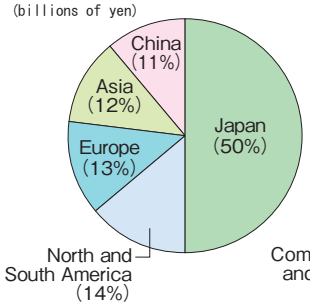
Sales

(billions of yen)

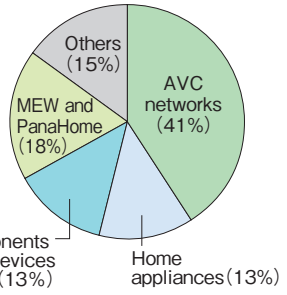


●Sales by region (fiscal 2008)

(billions of yen)

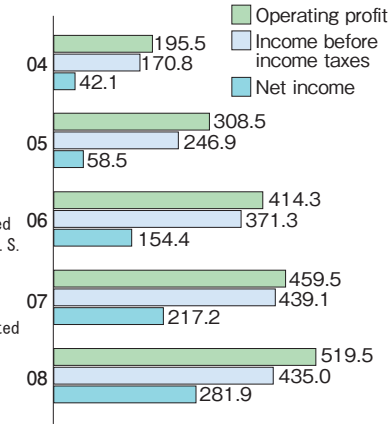


●Sales by business segment (fiscal 2008)



Profit (Loss)

(billions of yen)

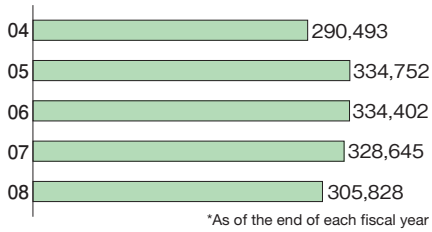


* Panasonic's consolidated accounting conforms to U.S. accounting standards.
* Number of consolidated companies: 556 (parent companies and consolidated subsidiaries)
* Number of associated companies: 139

For results of operations, refer to IR information: ir-site.panasonic.com/

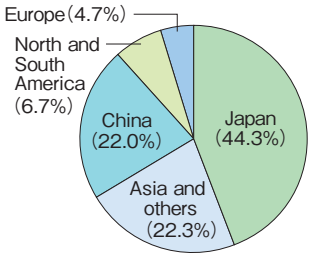
Number of employees

(persons)



*As of the end of each fiscal year

●Number of employees by region (as of the end of fiscal 2008)



Main products

There are five main product areas: AVC networks; home appliances; components and devices; MEW and PanaHome; and others.

AVC networks

Plasma, LCD and CRT TVs, DVD recorders/players, VCRs, camcorders, digital cameras, compact disc (CD), Mini Disc (MD) and Secure Digital (SD) players, other personal and home audio equipment, SD Memory Cards and other recordable media, optical pickup and other electro-optic devices, PCs, optical disc drives, copiers, printers, telephones, mobile phones, facsimile equipment, broadcast- and business-use AV equipment, communications network related equipment, traffic-related systems, car AVC equipment, etc.

Home appliances

Refrigerators, room air conditioners, washing machines, clothes dryers, vacuum cleaners, electric irons, microwave ovens, rice cookers, other cooking appliances, dish washer/dryers, electric fans, air purifiers, electric and gas heating equipment, electric and gas hot water supply equipment, sanitary equipment, health-care equipment, electric lamps, ventilation and air-conditioning equipment, car air conditioners, compressors, vending machines, medical equipment, etc.

Components and devices

Semiconductors, general components (capacitors, modules, circuit boards, power supply and inductive products, circuit components, electromechanical components, speakers, etc.), electric motors, batteries, etc.

MEW and PanaHome

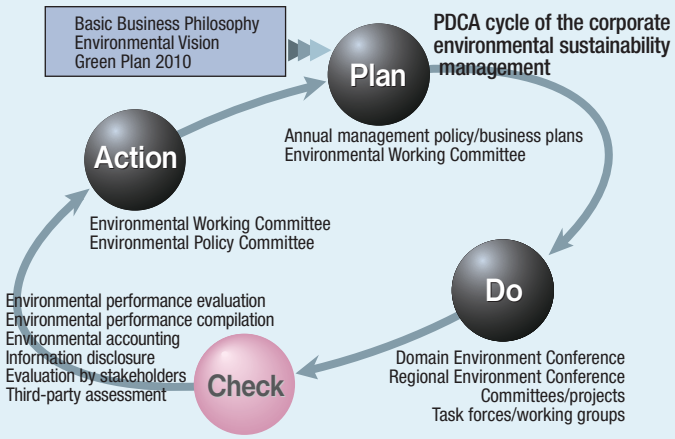
Lighting fixtures, wiring devices, distribution panel boards, personal care products, health enhancing products, water-related products, modular kitchen systems, interior furnishing materials, exterior finishing materials, electronic and plastic materials, automation controls, detached housing, rental apartment housing, medical and nursing care facilities, home remodeling, intermediary of real estate, lease management etc.

Others

Electronic-components-mounting machines, industrial robots, welding equipment, bicycles, imported materials and components, etc.

Publication objective and editorial policy

Panasonic has established environmental management systems at its business sites worldwide and is promoting environmental sustainability management based on its environmental action plan, the Green Plan 2010. This Environmental Data Book outlines our environmental sustainability management throughout the year and aims to provide detailed data to supplement the environmental information available in the The Panasonic Report for Sustainability. The Environmental Data Book and other disclosure items play an important role in the Check phase of our management system's Plan-Do-Check-Action (PDCA) cycle. By disclosing environmental information, we appreciate stakeholders' evaluation and feedback to step up our efforts for the Action phase. We value your frank opinions on this report.



Information disclosure of environmental activities

All the information provided in this report is also available on our website. In addition, on the website we disclose detailed environmental information for each of our business domains and sites, including factories.

For the URLs of the related web pages, see P. 72

■ Scope and key facts of this report

Reporting period: Fiscal year 2008 (April 1, 2007 – March 31, 2008)
The abbreviated year indication in graphs refers to a fiscal year (April 1 – March 31).
Organization covered: Panasonic (Matsushita Electric Industrial Co., Ltd.) and its group subsidiaries inside and outside Japan (called the Group in this report)
Data covered: All manufacturing sites that have established Panasonic Environmental Management Systems (297 sites) (When companies included in the data target are changed, the data will be corrected in a retrospective manner.)

* As a major change in fiscal 2008, Victor Company of Japan Ltd. was excluded from the data target and so such data was retrospectively corrected.
* Where there are no indications of fiscal year or region in the performance data, results are for fiscal 2008 (on a global basis).

P. 00 in the text indicates a related page.

indicates the website address where further information is available.

indicates the receipt of a commendation from an external organization.

J-SUS

The J-SUS imprint indicates that the environmental information contained in the Environmental Data Book 2008 satisfies the applicable provision of the code of the Japanese Association of Assurance Organizations for Sustainability Information.

http://www.j-sus.org/

Reference guidelines

- The Japanese Ministry of the Environment's Environmental Reporting Guidelines 2007
- The Global Reporting Initiative (GRI)'s Sustainability Reporting Guidelines 2006

* Panasonic has been a member of the GRI stakeholder organizations since 2004.

Contents

Executive's Message

'eco ideas' Strategy

Hidetsugu Otsuru
Director for Environmental Affairs
Matsushita Electric Industrial Co., Ltd.

The year 2008 is a starting year of the first commitment period to reduce greenhouse gases set out in the Kyoto Protocol, and in 2007, international agreements to stop climate change were sought at various stages, such as the Heilgendamm Summit, APEC meeting and U.N. high-level meetings. As represented by these movements, the international community is accelerating anti-global warming initiatives (= CO_2 emission reduction) as one of the most important international challenges. In this global trend, society and consumers are increasingly interested in environmental matters. In light of this, and in order to accelerate our environmental sustainability management as a company that bases its management philosophy on contribution to society, we announced our 'eco ideas' Strategy at the Panasonic Center Tokyo on October 5, 2007.

eco ideas

Panasonic leads the way… with 'eco ideas'

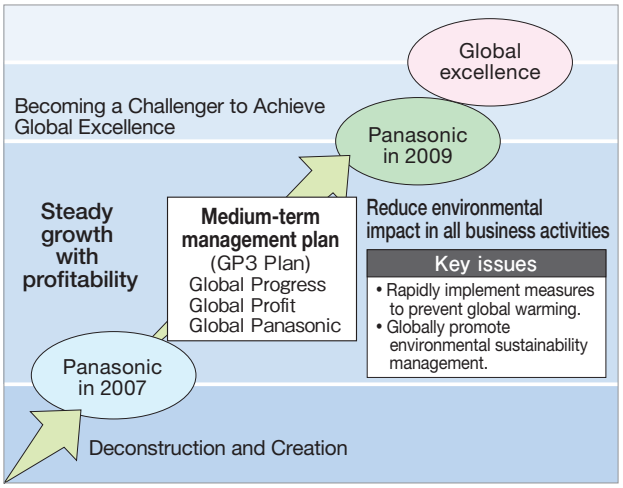
Accelerating Environmental Sustainability Management

In order to ensure the prerequisites to pursue global excellence, we are committed to attaining steady growth with profitability in implementing our measures to achieve our medium-term management plan. In addition to this target, we have added a new target, which is to reduce the environmental impact in all our business activities. While focusing on the achievement of these two core targets, we will make special efforts to reduce CO_2 emissions from our production activities as the most important challenge for a manufacturer. In particular, we will make concerted efforts across the Group to (1) reduce our total CO_2 emissions, in addition to per basic unit emission* reduction, and (2) use CO_2 emissions as a key management indicator.

Specifically, we will reduce our total CO_2 emissions by 300,000 tons on a global basis over the three years from fiscal 2008 to 2010 and thereby reduce emissions back to the level of emissions in fiscal 2001.

* Per-unit emissions = CO_2 emissions per unit of sales/production

■Acceleration of environmental sustainability management



'eco ideas' Declaration

We are committed to 'Advanced eco' in all our activities, as well as reducing CO_2 emissions from our production activities, and will implement our 'eco ideas' Declaration as the pillar for our environmental sustainability management activities. The declaration focuses on the following three initiatives:

● 'eco ideas' for Products: We will produce energy-efficient products

In addition to giving environmental consideration to materials and promoting recycling-oriented designs, we will accelerate the development of energy conservation technologies as our biggest target in implementing 'eco ideas' for Products. Based on this concept, we will increase the number of products with the No.1 energy efficiency performance in the industry, while eliminating products with low energy efficiency.

While it is rather difficult to set quantitative targets for the energy conservation performance of products as we cannot make clear comparisons of our products with other companies' ones in terms of energy efficiency, we do aim wherever possible to engage in objective initiatives. For example, we are implementing measures based on the Energy Conservation Performance Catalog published by the Energy Conservation Center, Japan (ECCJ), in which the Center gives a ranking according to the energy conservation performance of products. At present, only 10 product items such as TVs and ACs are covered by the catalog, but we regard this catalog as one of the main criteria for the energy conservation performance of our products, and will make active efforts to increase the number of our products that are ranked as No. 1 in the catalog, while eliminating those with low energy efficiency.

● 'eco ideas' for Manufacturing* : We will reduce CO_2 emissions across all our manufacturing sites

We will improve productivity in all our manufacturing processes, including product planning, procurement, marketing, logistics, and recycling in addition to production activities at factories, thereby reducing CO_2 emissions in all the Group's activities.

For example, we will effectively reduce CO_2 emissions by introducing state-of-the-art equipment, improving transportation efficiency, and integrating our factories. Also, we will reduce our CO_2 emissions by implementing measures to reduce our inventory and improve our manufacturing quality and yield ratios. We will also make efforts to minimize the travel of employees through the use of IT, including web-based conferences with our outlying departments and reduce the use of paper by the utilization of multi-function office equipment. Through these means, we will accelerate measures to reduce our CO_2 emissions in all our business operations, believing that any reform and improvement in management will also contribute to reducing CO_2 emissions.

* 'Manufacturing' stands for the entire business operation to deliver the value to the customers, such as R&D, procurement, product designing, manufacturing, sales, logistics, recycling, administration and others.

● 'eco ideas' for Everybody, Everywhere: We will encourage the spread of environmental activities throughout the world

We will promote eco activities jointly with employees and other members of society both locally and globally, focusing on the following three themes: (1) global promotion of the Love the Earth Citizens' Campaign; (2) expansion of 'eco ideas' Factories, which live in harmony with local communities; and (3) implementation of a group-wide project for environmental contribution in China.

In China, which we regard as a priority region, we have already announced the Declaration of Becoming an Environmentally Contributing Company in China and are implementing measures to become the most environmentally contributing company in China while promoting the Yellow Sea Ecoregion Support Project as a Corporate Supporter of the World Wide Fund for Nature (WWF). In the future, we will implement similar measures in various regions around the world, including Europe, North America, and Asia.

Implementing defensive environmental activities

'eco ideas' for Products, 'eco ideas' for Manufacturing, and 'eco ideas' for Everybody, Everywhere are implemented as aggressive and proactive environmental activities, but we must not forget that it is also important to conduct defensive environmental activities.

Specifically, we must appropriately manage chemical substances in relation to our products, and implement measures to prevent air, soil, and groundwater pollution in conducting our manufacturing activities. In every region and country, environmental laws and regulations are being further strengthened, and we have to comply with such laws—not just in time, but even ahead of their enforcement. We are committed to contributing to society as a public entity in our management philosophy and regard compliance with the laws and regulations as a premise for fulfilling this commitment.

We will therefore continue to conduct both defensive and aggressive and proactive environmental activities.

Performance Highlights in fiscal 2008

‘eco ideas’ for Products

Value for a New Lifestyle P11-12

Achieved the target of 5.0 for the GHG Factor for One Household (Achieved) Achieved

Green Products (GPs) P13-24

- Accredited the DVCPRO P2 series and the Lifinity Eco Management Systems as Superior GPs

The DVCPRO P2 series

Lifinity Eco Management Systems

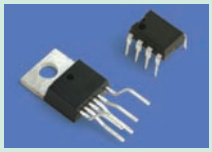
- Accreditation of 124 models as Super GPs
- GP Development Rate of 99% Achieved

Two products received Minister Prize of Economy, Trade and Industry at the Energy Conservation Grand Prize for excellent energy conservation equipment

The DL-GZ70 and other heated toilet seats with warm water sprays

Environmentally-conscious lighting equipment W Eco (embedded type FX619CAWF9 and others)

Intelligent power devices (IPDs) received the Minister of the Environment’s commendation for global warming prevention activities



Intelligent power devices (IPDs)

Developed a Household Fuel Cell Cogeneration System with power generation efficiency and durability on a level necessary for the actual commercialization

Green Marketing P25-26

Obtained approval for the use of 217 environment-conscious product certification labels in China

‘eco ideas’ for Manufacturing

Clean Factories (CFs) P27-38

- 9 factories accredited as Superior CFs

Panasonic Semiconductor Opt Devices Co., Ltd.

Panasonic Communications (Malaysia) Sdn. Bhd.

- CF Accreditation Rate: 85% Achieved

CO_2 emissions

- Basic unit emissions: 33% reduction (compared with fiscal 2001) Achieved

Chemical substances

- The amount of Key Reduction-target Substances released and transferred: 16% reduction (compared with fiscal 2001) Achieved

Total waste arisings including revenue-generating waste

- Per-unit emission: 38% reduction (compared with fiscal 2001) Achieved
- A total of 138 sites in Japan* achieved zero waste emission.

* All sites within domain

Water consumption

Per-unit consumption: 47% reduction (compared with fiscal 2001) Achieved

Green Logistics P39-40

Started full-scale operations a biodiesel-fueled bus

JR Minami-Kusatsu Station-
Matsushita Electric Industrial-
Ritsumeikan University
Service operated by:
Ohmi Railway Corporation

Product Recycling P41-42

- Started to reuse plastics contained in end-of-life cathode-ray TVs
- Developed a technology to decompose organic matter by catalytic reaction for recycling

Achieved Indicates that the target for fiscal 2008 was achieved

‘eco ideas’ for Everybody, Everywhere

Love the Earth Citizens’ Campaign P45-46

Implemented the Japanese-Chinese Joint ‘CO_2 Reduction Eco Challenge by 100,000-employees!’ (Reduction effect on CO_2 emissions: approx. 180 tons)

Through our ‘Eco Challenge: Select Energy Efficient Products’, approximately 28,000 employee households purchased approximately 107,000 products, of which some 70% were energy-saving models.

Environmental Communication P49-56

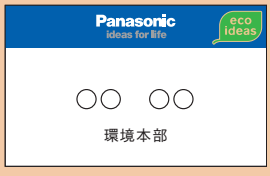
Announced the ‘eco ideas’ Strategy at Panasonic Center Tokyo

Held a dialogue meeting with the Natural Step, an international NGO (on a continuing basis since 2001)

Panasonic’s reports received prizes

- Received the Grand Prize for Environmental Reporting (Prize of the Minister of the Environment) at the 11th Environmental Communication Awards
- Received a prize for excellence at the 11th Green Reporting Award and Sustainability Reporting Award held by Toyo Keizai Inc.

Increasing employees’ environmental awareness through the environmental mark



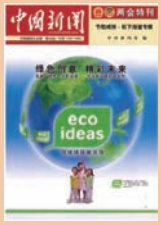
Promotion of the China Eco Project

- Made the Declaration of Becoming an Environmentally Contributing Company in China

- Held the Panasonic China Environmental Forum 2007

Opened Panasonic Center Beijing as the first corporate showroom outside Japan

Introduced Panasonic’s China Eco Project at the National People’s Congress in China and the Chinese People’s Political Consultative Conference



Promoting the Yellow Sea Ecoregion Support Project with the World Wide Fund for Nature (WWF)

External Evaluation P52

- Listed in the Climate Disclosure Leadership Index for the first time in the Carbon Disclosure Project 5
- Listed in the Dow Jones Sustainability Index for three consecutive years

Dow Jones Sustainability Indexes
Member 2007/08

- Ranked at the 9th (in the manufacturing industry) in the environmental management survey conducted by Nikkei Inc.

Green Plan 2010

Environmental Action Plan

Promoting environmental sustainability management through Green Plan 2010

Green Plan 2010 is an action plan that defines the specific targets and activities that Panasonic will pursue for environmental sustainability management towards 2010. Since the formulation of the Plan in 2001, we have been reviewing its targets annually to make them even more challenging.

Since we were able to achieve some of the major target items in fiscal 2008 earlier than planned, in fiscal 2009, we will set out new challenging targets while reorganizing our 'basic targets,' 'area targets,' 'management targets,' and 'environmental performance targets' into 'eco ideas' for Products, 'eco ideas' for Manufacturing, 'eco ideas' for Everybody, Everywhere, and the environmental management fields that support these 'eco ideas.' In this way we will further accelerate our environmental sustainability management.

Achieving the major targets earlier than planned and challenging new targets

●GHG Factor for One Household

We have been implementing measures to improve the quality of our customers' lives while helping them decrease their environmental impact under the concept of 'Creating Value for a New Lifestyle,' And we set the GHG Factor for One Household as an indicator to evaluate these measures. In fiscal 2008, we achieved the target of 5 for the Factor, originally set for fiscal 2011, three years ahead of the schedule. We will not set a new target for the Factor, but will continue to implement environmental impact reduction measures for one entire household and disclose information about the Factor and relevant indicators.

●Green Products (GPs) Development Rate

We have set the criteria to accredit GPs from the viewpoint of the prevention of global warming, effective utilization of resources, and chemical substances management. We defined the percentage that GPs

■Targets and actual results in fiscal 2008

Basic targets (global targets based on fiscal 2001 levels)

Items	Indicators	Targets for fiscal 2011	Targets for fiscal 2008	Results in fiscal 2008	Self-assessment
Creating Value for a New Lifestyle	GHG Factor for One Household*1	5	3.35	5	◎
Green Products (GPs)	Green Product Development Rate*2	At least 90%	78%	99%	◎
Clean Factories (CFs)	Clean Factory Accreditation Rate*3	At least 90%	66%	85%	○

Area targets

Items	Results in fiscal 2008
Product recycling	・In Japan: Recycled approx. 72,000 tons of the four home appliance products. ・In the U.S.: Established a company to manage the recycling of waste electronic devices and started operations in Minnesota. ・In the EU: Collected approx. 23,000 tons of waste electronic devices
Environment/energy business	・Developed Household Fuel Cell Cogeneration Systems with power generation efficiency and durability on a level suitable for the commercialization (approx. 300 units are now in use)
Green marketing and logistics	・Globally promoted the use of the new 'eco ideas' environmental mark ・Used biodiesel fuel refined from waste cooking oil for a commuter bus

Management targets

Items	Results in fiscal 2008
Environmental communication	・49% of employees' households in Japan participated in the Love the Earth (LE) families ・A total of 130,000 employees participated in the Japanese-Chinese Joint 'CO_2 Reduction Eco Challenge by 100,000-employees!'
Environmental sustainability management and human resources	・Started the global introduction of the Monthly Reporting of Environmental Performance
Measures against environmental risks	・Started full-scale measures for the treatment of soil contaminated by PCBs

Environmental performance targets (global targets based on fiscal 2001 levels)

Items			Targets for fiscal 2011	Targets for fiscal 2008	Results in fiscal 2008	Self-assessment
Prevention of global warming	Products		Announcement of estimated CO_2 emissions from products in use	Estimation of CO_2 emissions from products in use		○
	Factories		10% reduction in per basic unit CO_2 emissions*4	7% reduction	Reduced by 33%	◎
	Logistics		Per basic unit CO_2 emissions:*5 (in Japan) 1% reduction every year compared with the previous year till fiscal 2011	1% reduction	Reduced by 4.9%	○
Reductionin release and transfer of chemical substances	Products		PVC: complete replacement for internal wiring of new products	75 tons replacement for new products released in Japan		○
	Factories		Release and transfer of Key Reduction-target Substances: 10% reduction (from the fiscal 2006 level)	4% reduction	Reduced by 16%	◎
Recycling of resources	Factories	Waste	Per basic unit emissions:*6 20% reduction	14% reduction	Reduced by 38%	◎
		Water	Per basic unit consumption:*7 10& reduction	7% reduction	Reduced by 47%	◎

*1 Total of some 90 products and systems used throughout a household *2 Shipment value of GPs developed in the fiscal year/Shipment value of all products developed in the same fiscal year *3 Percentage of factories achieving the internal baseline score of environmental impact reduction in the total number of factories *4 CO_2 emissions /(Consolidated sales/Bank of Japan's corporate goods price index [electric machinery & equipment]) *5 CO_2 emissions/ weight of products (components) transported *6 Waste generation/ (Consolidated sales/Bank of Japan's corporate goods price index [electric machinery & equipment])

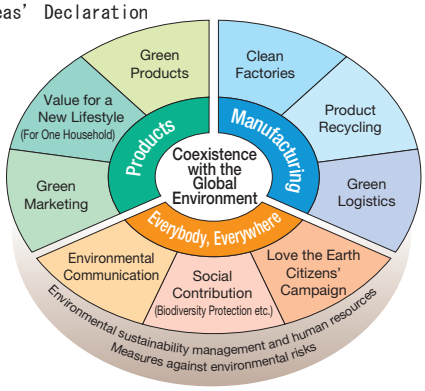
Self-assessment level: ◎ = Achieved the target for fiscal 2011; ○ = Achieved the target for fiscal 2008

account for in the value of shipment from our factories as the GP Development Rate and set a target of increasing the rate to at least 90% in fiscal 2011. We were able to achieve 99% in the rate in fiscal 2008, thereby achieving the target much earlier than planned. In the future, while complying with the GP accreditation criteria, we will set a new target for the number of models accredited as Superior GPs, which indicate products with industry's best environmental performance.

●Target for per basic unit CO_2 emissions from factories

As for per basic unit CO_2 emissions from our factories, which represent a particularly important target for the prevention of global warming, we achieved reduction by 33%, far exceeding the target of 7%. We were thus able to achieve the target for fiscal 2011 three years early. Hence, we set a new target for the total CO_2 emissions from factories aiming for the acceleration of global warming prevention, while continue to disclose information about per basic unit CO_2 emissions.

■ 'eco ideas' Declaration



●'eco ideas' for Products:
We will produce energy-efficient products

●'eco ideas' for Manufacturing:
We will reduce CO_2 emissions across all our manufacturing sites

●'eco ideas' for Everybody, Everywhere:
We will encourage the spread of environmental activities throughout the world

'eco ideas' for Products

Item	Indicators	Targets for fiscal 2009	Targets for fiscal 2010	Targets for fiscal 2011
Green Products (GPs)	Number of models accredited as Superior GPs*1	150	200	250
Creating Value for a New Lifestyle (for One Household)	・Continue to estimate the reduction of environmental impact for One Household (for the prevention of global warming and effective use of resources) and disclose relevant information			
Green Marketing	・Full-scale promotion of environmental labeling on a global basis ・Implementation of 'eco ideas' campaigns			

'eco ideas' for Manufacturing

Item		Indicators	Targets for fiscal 2009	Targets for fiscal 2010	Targets for fiscal 2011
Prevention of global warming	Production	Reduction of CO_2 emissions	Reduction by 110,000 tons (from fiscal 2007 level)	Reduction by 300,000 tons (from fiscal 2007 level)	Reduction to fiscal 2001 level
	Logistics	Per basic unit CO_2 emissions (compared with fiscal 2007)	1% reduction every year compared with the previous year till 2011		
Reduction in the use of chemical substances		Release and transfer of the key reduction-target substances (compared with fiscal 2006)	6% reduction	8% reduction	10% reduction
Recycling of resources	Waste (including revenue-generating waste)	Per basic unit waste generation*3 (compared with fiscal 2001)	16% reduction	18% reduction	20% reduction
		Recycling rate*4 Japan/Outside Japan	99.0%/90%	99.5%/92.5%	99.5%/95%
	Water	Per basic unit water consumption*5 (compared with fiscal 2001)	8% reduction	9% reduction	10% reduction
Clean Factories		Clean Factory Accreditation Rate*6	At least 74%	At least 82%	At least 90%
Product Recycling		・Promotion of advanced technologies to select and reuse materials ・Implementation of recycling measures localized for each region in the world			

'eco ideas' for Everybody, Everywhere

Themes	Details
Love the Earth Citizens' Campaign	・(In Japan) Number of employees' households accredited as LE families: At least 80% in fiscal 2011 ・Global promotion of the followings: Use of Household eco-account book, reduction in the use of disposable plastic bags at stores by the use of eco bags, and environmental volunteer activities
Environmental Communication	・Promotion of 'eco ideas' Factories across Japan, Global implementation of eco projects
Social Contribution (for biodiversity etc.)	・Promotion of the Yellow Sea Ecoregion Support Project and the Forest of Co-existence Program

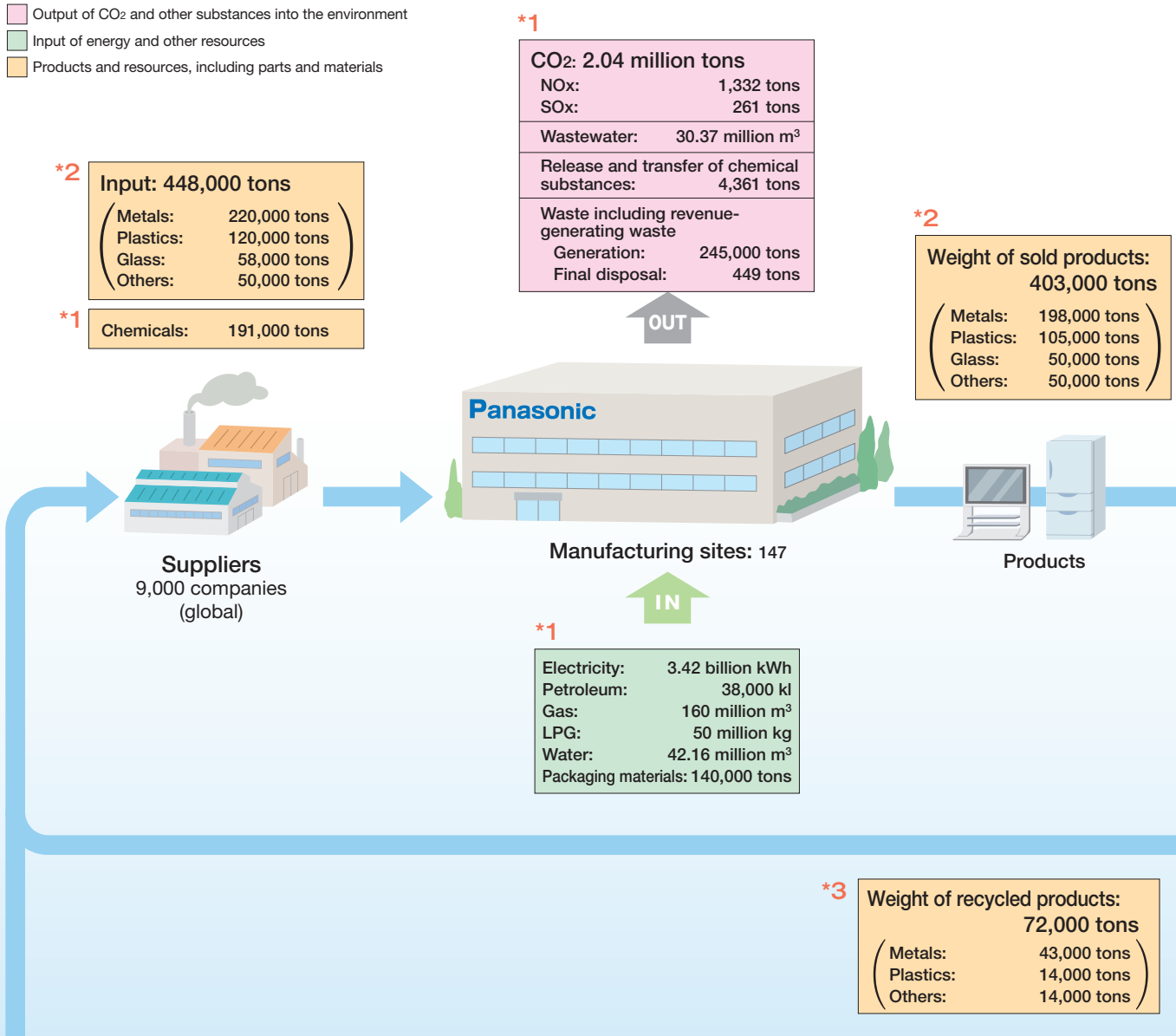
Environmental Management

Themes	Details
Development of promotion systems and human resources	Enhancement of environmental management systems and environmental IT systems, active development of human resources, etc.
Measures against environmental risks	Measures against contamination by PCBs, volatile organic compounds (VOCs) and heavy metals

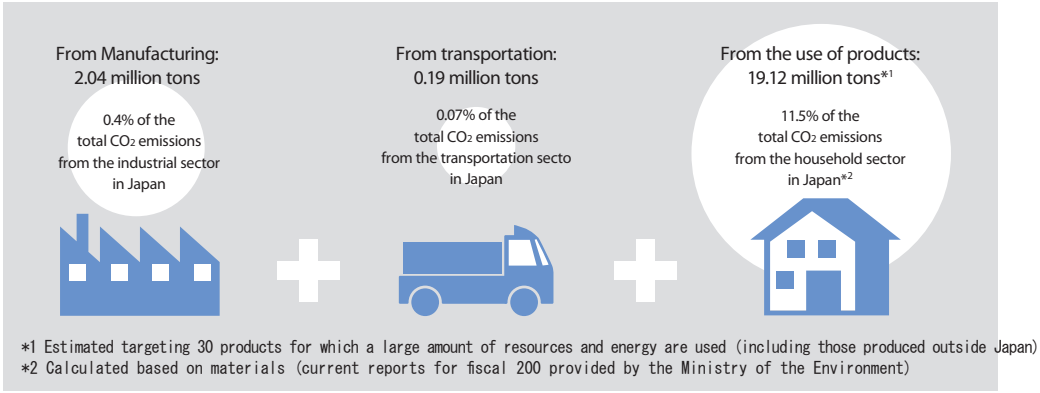
*1 Products with the industry's No. 1 environmental performance (for at least 1 of the following items: prevention of global warming, effective utilization of resources and chemical substances management) *2 CO_2 emissions/ weight of products (components) transported *3 Waste generation/(Consolidated sales/Bank of Japan's corporate goods price index [electric machinery & equipment]) *4 Recycling rate = Amount recycled/(Amount recycled + final disposal amount) In Japan, the target values are mandatory for each site; in other areas, targets are average values *5 Water consumption/(Consolidated sales/Bank of Japan's corporate goods price index [electric machinery & equipment]) *6 Percentage of factories achieving the internal baseline score of environmental impact reduction in the total number of factories

Environmental Impact of Panasonic's Business Operations (Japan)

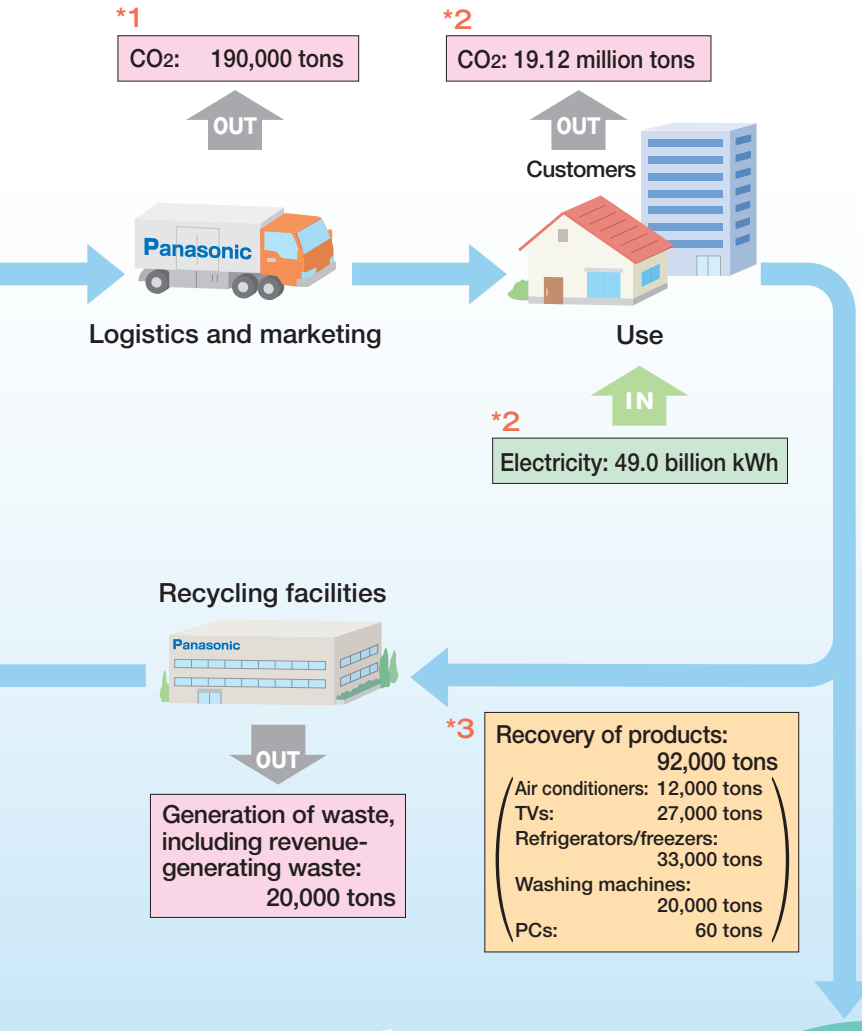
As a manufacturer of electrical and electronic products, we use a lot of resources to make our products, including parts and materials, consume petroleum and electricity as energy; we emit CO_2, and generate waste. The following diagram maps the environmental impact of our business operations, from post material-procurement stage to recycling activities.



■Panasonic's CO_2 emissions in Japan (fiscal 2008)



*1 Estimated targeting 30 products for which a large amount of resources and energy are used (including those produced outside Japan)
*2 Calculated based on materials (current reports for fiscal 200 provided by the Ministry of the Environment)



●Calculation model

Target area: Japan; procurement and manufacturing: 156 manufacturing sites in Japan; logistics and marketing: transport from manufacturing sites to retail shops (in the case of imported items, transport within Japan only); use: CO_2 emissions associated with lifetime power consumption of target products. Lifetime power consumption calculated based on the number of products sold, usage time, and service life (10 years). Used 0.39kg-CO_2/kWh for a CO_2 emission coefficient of purchased electricity; recycling: the weight of recycled products equals the weight of components and materials that can be either sold or provided free of charge to businesses that use such components and materials.
[Input items] electricity: amount purchased from power utilities; petroleum: used volume of heavy oil, and kerosene; water: used volume of water, industrial water and underground water; packaging materials: corrugated cardboard, polystyrene foam, paper board, etc. (excepting PanaHome).
[Output items] CO_2: CO_2 emissions associated with the use of electricity, gas, LPG and petroleum; NOx and SOx: emissions from business sites governed by legal regulations and ordinances; water: discharge to sewage and public water districts.

*1 147 manufacturing sites
2 30 major products with the highest energy/resource consumption levels (including products from plants outside Japan)
*3 Air conditioners, TVs, refrigerators, washing machines and PCs

*The 30 major products with the highest energy/resource consumption levels: plasma TVs, LCD TVs, CRT TVs, DVD recorders, SD stereo systems, fax machines, refrigerators, air conditioners, microwave ovens, IH cooking heaters, washing machines and dryers, fully-automatic washing machines, laundry dryers, rice cookers, dish washers & dryers, natural coolant (CO_2) heat pump water heaters, electric thermos pots, electric carpets, vacuum cleaners, heated toilet seats with warm water sprays, electric irons, dehumidifiers, humidifiers, ventilators, air purifiers, bathroom ventilators & dryers, range hoods, fluorescent lamps (evaluated resources only), home-use lighting equipment, and hair dryers.

‘eco ideas’ for Products

Value for a New Lifestyle

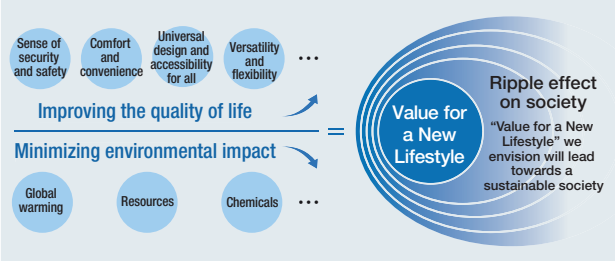
We are committed to pursuing Value for a New Lifestyle to help customers improve the quality of their lives while minimizing their environmental impact, thereby reducing the environmental impact from entire households.

Fiscal 2008 Targets and Results

Basic target

●GHG Factor for One Household:
Target for fiscal 2011: 5
(Product functions: doubled; GHG emissions: reduced by 60%)
Result Achieved Factor 5 three years earlier than planned

■Philosophy on Creating Value for a New Lifestyle

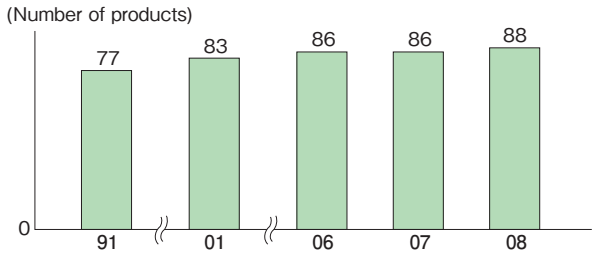


■Sample household

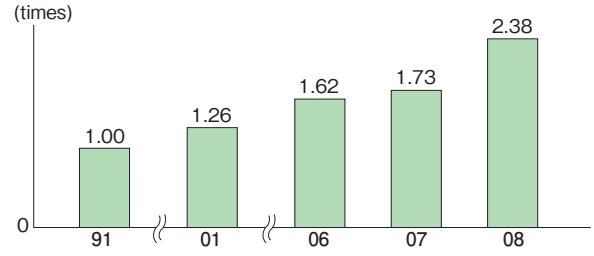
Sample household

●Family and house
A four-member, three-generation household comprising a daughter aged six, her father aged 40 and mother aged 37, and her grandmother aged 70, living in a two-story house with four rooms plus a Japanese-style room with total floor area of 136.9 m² (national average in Japan)
●Products comprising the house
Fiscal 1991: Latest models that we produced and marketed at that time in consideration of market share
Fiscal 2008: Latest products recommended by Panasonic in consideration of market share and changes in lifestyles (increase in the number and size of products used at a household)

■Number of products



■Improvement of product functions



Reducing the environmental impact of households

Panasonic has been pursuing Value for a New Lifestyle to help customers improve the quality of their lives while minimizing their impact on the global environment. This concept is based on Eco-efficiency proposed at the 1992 Earth Summit. The eco-efficiency improvement rate for each fiscal year (against the baseline year) is called ‘Factor X’ and we have been evaluating this rate based on our unique calculation method.

■Environmental efficiency

$$\text{GHG Factor} = \frac{\text{(Product function X Product life)}}{\text{Greenhouse gas emissions over the entire lifecycle}}$$

Factor X = (Eco-efficiency of the evaluated product) / (eco-efficiency of a reference product)

●Factors for One Household

While we have made improvements in the Factor figures for each product, the number and size of products used at a household have both been increasing, and their impact on the environment are of concern. We are mainly engaged in the home appliance industry and have been calculating the Factor for One Household, targeting some 90 appliances or items of equipment commonly used in households. In fiscal 2008, we included buildings (residential houses) in the calculation target —in addition to home electrical appliances and products for housing equipment—in order to identify the synergy effects generated among products (e.g. effects brought about by the use of a home energy management system) and synergy effects between products and residential buildings (e.g. heat insulation effect). Accordingly, we have decided to use only the GHG Factor instead of using both the GHG and Resource Factors, because we can take the synergy effects brought about for one entire household into consideration only within the GHG Factor. We gave first priority to reducing GHG emissions and achieved the GHG emission reduction target for fiscal 2011 (reduction by 60%) three years earlier than planned. For quality of life, an evaluation method has yet to be established and we are now assessing this from various viewpoints. For example, in thinking about improvements of product functions that would help our customers improve the quality of their lives, we included the inside volume of our refrigerators and the screen size of our TVs in the criteria to calculate the improvement rate. As a result, the improvement rate came to 1.63 times in fiscal 2008. When we also included the quality of TV images and other quality-related items in the calculation criteria, the improvement rate amounted to 2.38 times. Based on these results, it can be said that the quality of life (production functions) improved by at least twice. As a result, we were able to achieve the target for fiscal 2011 (GHG Factor: 5) three years earlier than planned.

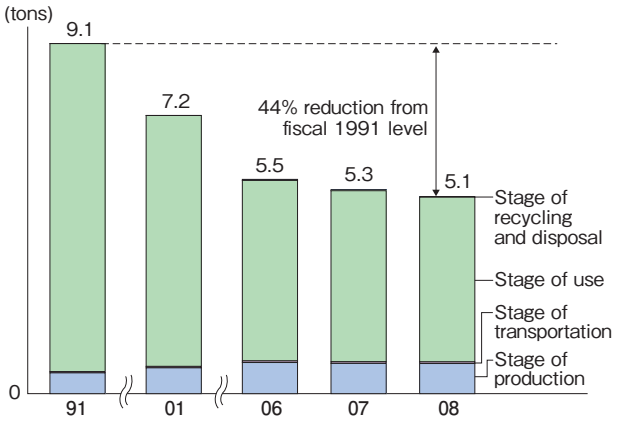
We will continue our efforts to help reduce environmental impacts from one entire household by promoting these synergy effects, using the Factor and GHG emissions and so on.

Targets for 2011	Actual results for fiscal 2008
GHG Factor -5	$5 = \frac{\text{Quality of life X 2}}{\text{Environmental impact X 0.40}}$

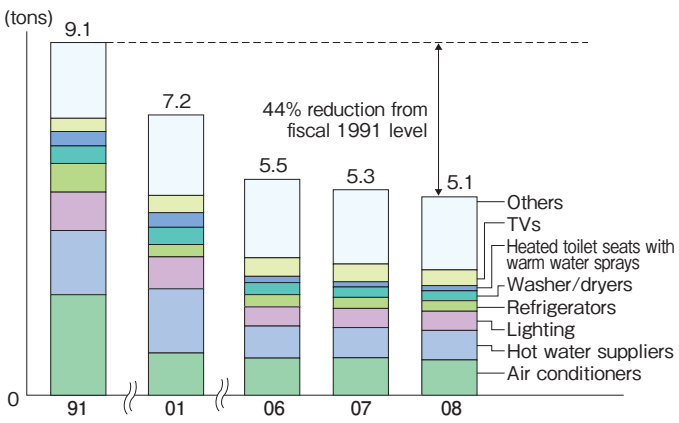
●Measures for products

We made efforts to reduce the power consumption of our products when in use, including air conditioners, hot water suppliers, lighting equipment, refrigerators, washer/dryers, and heated toilet seats with warm water sprays. As a result, we were able to reduce annual GHG emissions from these products by 44% from the fiscal 1991 level.

■GHG emissions from our products by lifecycle stage (CO_2 equivalent)



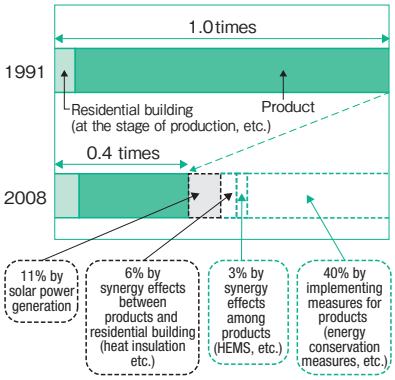
■GHG emissions by product (CO_2 equivalent)



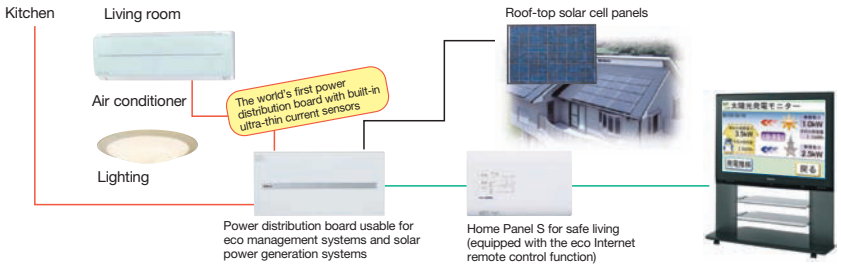
●Synergy effects for one entire household

The synergy effects for one entire household include the effects among products, the effects between products and residential buildings, and the effects produced by energy creation (solar power generation). As an example of the effects among products, the power consumed by products when in use will be reduced by 6.4% through the use of a Home Energy Management System (HEMS). As an example of the effects between products and the residential buildings, the power consumed by air conditioners in use will be reduced by 38% by improving the heat insulation property of the residence, and power consumption by ventilation fans in use will be reduced by 20% by utilizing temperature differences to promote ventilation. By comprehensively implementing these measures, we were able to achieve a 60% reduction from the fiscal 1991 level (to 0.40 times that level): 40% by improving the energy conservation performance of products, 3% through the synergy effects among products, 6% by the synergy effects between products and the residential building, and 11% through energy creation (solar power generation). (See figure on right.)

■Synergy effects for one entire household



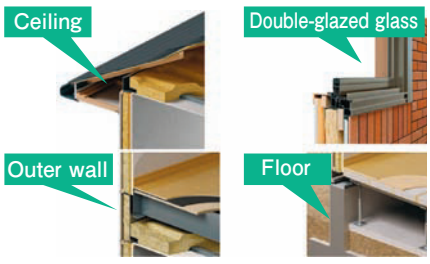
■Synergy effects among products: Home Energy Management System



Lifinity Eco Management Systems

Eco management systems for One Household, which help households to efficiently promote energy conservation and lead eco lives through the introduction of IT-based home energy management systems

■Synergy effects between products and residential building: Building's heat insulating properties

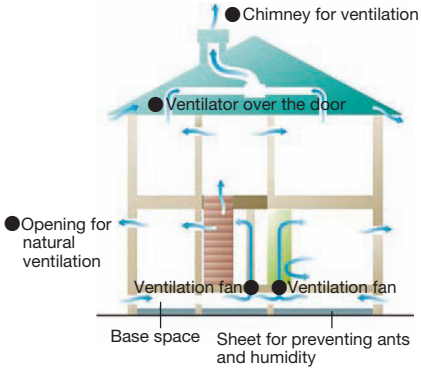


Highest level in heat insulation and highly airtight

Next-generation energy conservation standard

The building's heat insulation performance has improved by approximately 1.8 times from the fiscal 1991 level due to improvements in designs for heat insulation, including the introduction of double-glazing.

■Synergy effects between products and residential building: Use of temperature differences for ventilation



Pana Home Hybrid Ventilation System (for mechanical and natural ventilation)

When the temperatures inside and outside the residential building differ by 10°C or more, the heated air will move upward, which will in turn promote natural ventilation, making it possible to suspend mechanical ventilation.

Green Products

In ‘eco ideas’ for Products, we aim at reduction of environmental impact and contribution to establishment of a sustainable society by increasing the number of products with No.1 energy-efficiency performance as well as promoting initiatives for environmentally-conscious materials and recycling.

We develop Green Products (GPs) based on our criteria set for global warming prevention, effective utilization of resources and chemical substances management, and make all our products GPs.

Fiscal 2008 Targets and Results

Basic targets

●Green Product Development Rate: 78%

Result 99%

Environmental performance targets

●Estimation of CO_2 emissions from products in use

Result : 19.12 million tons*

* Calculated for 30 major products that consume large amount of resources and energy based on their annual sales quantity, hours of use (according to industry or Panasonic calculation criteria), and the period of use (set at 10 years). The CO_2 emission coefficient of purchased electricity is set at 0.39 kg CO_2/kWh.

●PVC resin: Completion of replacement for internal wiring (by fiscal 2009 for new products released in Japan and by fiscal 2010 for new products marketed globally).

Result Replaced the use in new products released in Japan by 75 tons.

●Major economic benefits

Benefits from controls in CO_2 emissions from the use of 30 major products*1 over 10 years

- Electricity reduction:*2 1,901 million kWh
- CO_2 reduction: 0.74 million tons
- Electricity bill reduction:*3 41.8 billion yen

*1 30 major products: new products released in fiscal 2008, which comprise plasma TVs, LCD TVs, CRT TVs, DVD recorders, SD stereo systems, fax machines, refrigerators, air conditioners, microwave ovens, IH cooking heaters, clothes washer/dryers, automatic washing machines, laundry dryers, rice cookers, dish washer/dryers, natural refrigerant (CO_2) heat pump water heaters, electric thermos pots, electric carpets, vacuum cleaners, heated toilet seats with warm water sprays, electric clothes irons, dehumidifiers, humidifiers, ventilators, air purifiers, bathroom ventilators and dryers, range hoods, fluorescent lamps (evaluated resource only), home-using lighting equipment, and hair dryers.

*2 Controls in power consumption in use was calculated according to the following formula, targeting the 30 major products sold in Japan in fiscal 2008 and assuming that these products would be used over a period of 10 years.
(Lifetime power consumption in use by models sold in fiscal 2007 – Lifetime power consumption in use by models sold in fiscal 2008) x Domestic sales quantity in fiscal 2008

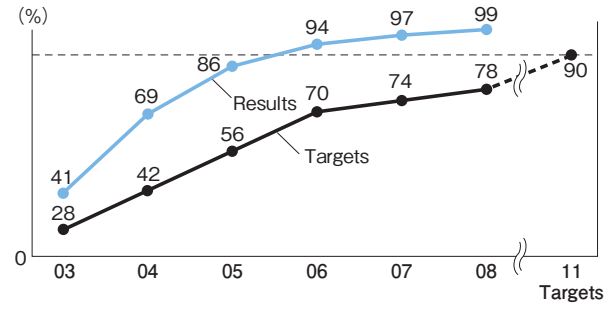
*3 Conversion factor for electricity bills: 22 yen/kWh
Source: Reference for the unit prices of new electricity charges presented by the Home Electric Appliances Fair Trade Conference

Achieving 90% or higher GP Development Rate for three years in a row

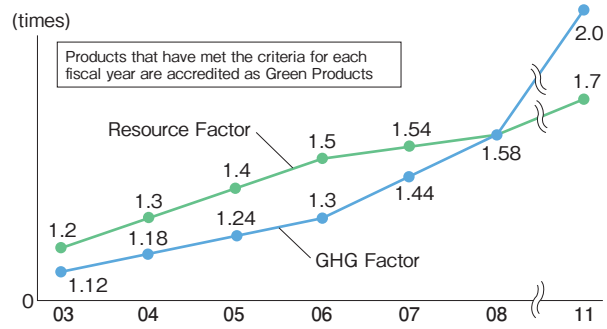
Panasonic has defined the percentage that GPs account for in the value of all shipments from factories of products developed in the fiscal year as the Green Product (GP) Development Rate and have set a target of 90% or higher for this rate for fiscal 2011. In fiscal 2007, we raised the target value for the GHG Factor for fiscal 2011, which is a Green Product Accreditation criterion for the prevention of global warming, from 1.5 to 2.0. As a result, in fiscal 2008, the GP Development Rate increased to 99%, exceeding the target value of 78%. The rate also came to 96% even when it was calculated using the stricter target set for fiscal 2011.

The GP Development Rate has exceeded 90% for three consecutive years from fiscal 2006 and so we set a new target for our Green Plan 2010 in terms of the number of models to be accredited as Superior GPs.

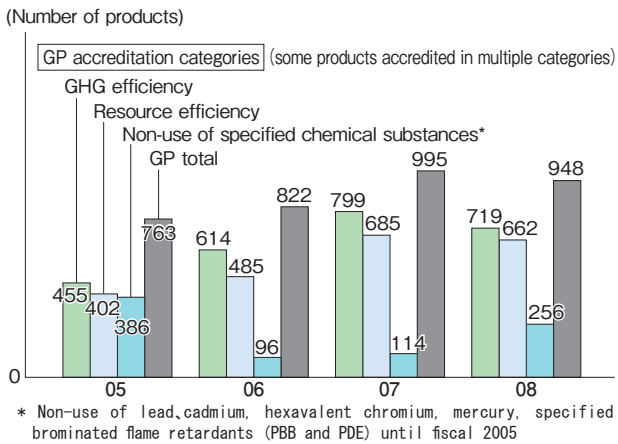
■Green Product Development Rate



■Criteria for Factors (as compared with fiscal 2001)



■Breakdown of Green Products



* Non-use of lead、cadmium, hexavalent chromium, mercury, specified brominated flame retardants (PBB and PDE) until fiscal 2005

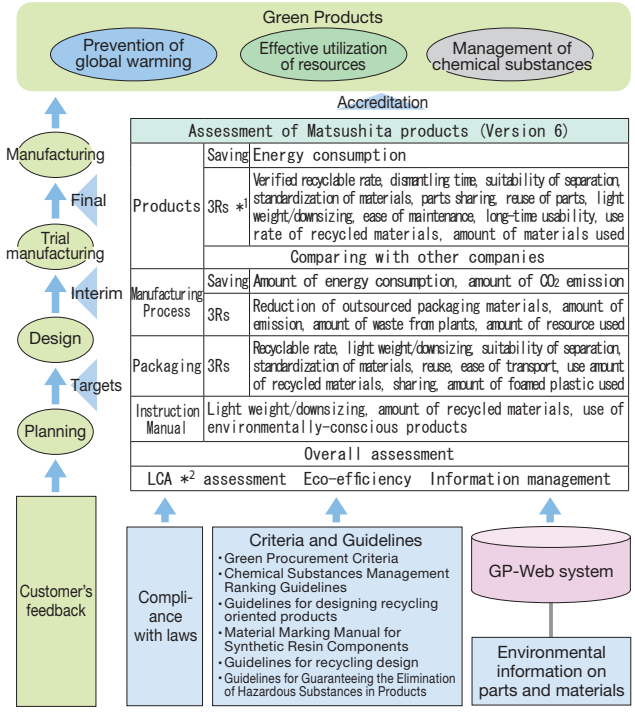
●Green Product assessment system and accreditation criteria

Panasonic has been utilizing an environmental assessment system for its products. Under this system, we assess the environmental impact of our products right from their planning and design stages. Based on the assessment results, we accredit products and services with higher environmental performance as Green Products (GPs). Furthermore, we accredit products that have achieved top environmental performance in the industry as Superior GPs and trend-setting products towards achieving a sustainable society as Super GPs.

We are making the GP accreditation criteria stricter each year, thereby ensuring continuous improvement in the GHG efficiency*1 and resource efficiency*2 of our products. In addition, we are endeavoring to manage all chemical substances that might adversely affect the environment in an appropriate manner.

*1 (Product life x product function)/GHG emissions over the entire life cycle
*2 (Product life x product function)/Amount of non-circulating resources over the entire life cycle

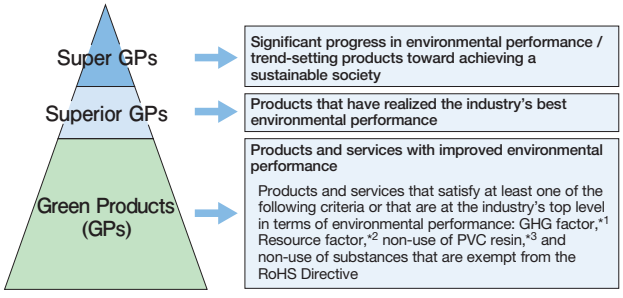
■ Green Product assessment system



Assessment of Matsushita products (Version 6)		
Products	Saving	Energy consumption
	3Rs *1	Verified recyclable rate, dismantling time, suitability of separation, standardization of materials, parts sharing, reuse of parts, light weight/downsizing, ease of maintenance, long-time usability, use rate of recycled materials, amount of materials used
	Comparing with other companies	
Manufacturing Process	Saving	Amount of energy consumption, amount of CO_2 emission
	3Rs	Reduction of outsourced packaging materials, amount of emission, amount of waste from plants, amount of resource used
Packaging	3Rs	Recyclable rate, light weight/downsizing, suitability of separation, standardization of materials, reuse, ease of transport, use amount of recycled materials, sharing, amount of foamed plastic used
Instruction Manual	Light weight/downsizing, amount of recycled materials, use of environmentally-conscious products	
Overall assessment		
LCA *2 assessment	Eco-efficiency	Information management

*1 Reduce, Reuse, and Recycle
*2 A method of quantitatively assessing the environmental impact of products at each life cycle stage.

■ Green Product Accreditation Criteria (fiscal 2008)



*1 GHG efficiency of the product to be evaluated/GHG efficiency of a benchmark product
*2 Resource efficiency of the product to be evaluated/Resource efficiency of a benchmark product
*3 Target: Products in which PVC resin was used in fiscal 2001

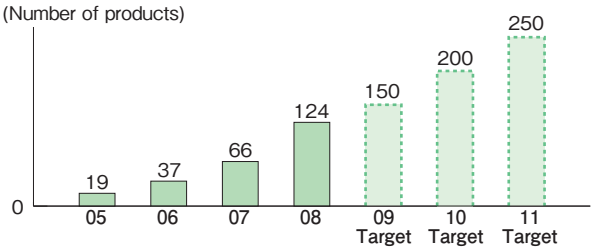
Accrediting 124 models as Superior GPs

We introduced the Superior GP Accreditation Program in fiscal 2005 and accredited 124 models as Superior GPs in fiscal 2008. We have been establishing a foundation for developing and marketing GPs, and are now steadily increasing the number of Superior GPs. As future targets, we aim to accredit 150 models as Superior GPs in fiscal 2009, 200 models in fiscal 2010, and 250 models in fiscal 2011, which is almost twice as many as the number in fiscal 2008. Using this system, we intend to increase the number of our products ranked No. 1 in the industry in terms of environmental performance.

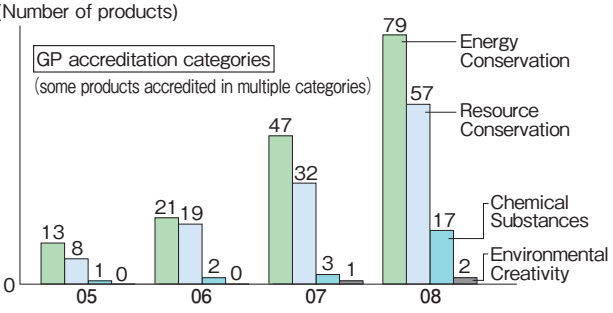
We will also actively promote the accreditation of products that we sell outside Japan as Superior GPs.

P. 19–22

■ Products accredited as Superior GPs



■ Breakdown of Superior GPs



●Accrediting the DVCPRO P2 Series and Lifinity Eco Management Systems as Super GPs

We introduced the Super GP Accreditation Program in fiscal 2003. In fiscal 2008, we accredited the following two products as Super GPs: the Digital Camcorder DVCPRO P2 Series, which achieved the reduction of power consumption in data copying to one-hundredth and the amount of resource use to one-tenth (compared with Panasonic's conventional products) due to dramatic progress in the editing process; and the Lifinity Eco Management Systems, which help households save energy by visualizing their overall electricity usage.

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■ Products accredited as Super GPs

Fiscal year	Products
2003	HFC-free refrigerator Standby energy-conserving Intelligent power device (IPD)
2006	Heat pump-type tilted-drum washer/dryers
2007	Plasma TV
2008	Digital Camcorder DVCPRO P2 Series Lifinity Eco Management Systems

Energy Conservation in Products

Concept/Future activities

Achieving both higher functionality and greater energy conservation performance

In Japan, CO_2 emissions from households account for approximately 14% of total CO_2 emissions in the country and these emissions tend to increase year by year. Panasonic is committed to reducing the environmental impact of households by developing and popularizing high energy-saving products and services. We are using the GHG Factor, which represents the GHG efficiency* improvement rate (as compared with fiscal 2001), to measure our contribution to the prevention of global warming through our products and services, and adopted the target values for the GHG Factor as GP accreditation criteria. We will make the criteria even stricter and develop more products with higher GHG efficiency in an enhanced manner, thereby further improving the energy efficiency of our products.

* GHG efficiency = (Product life x product function)/GHG gas emissions over the entire life cycle

Activity

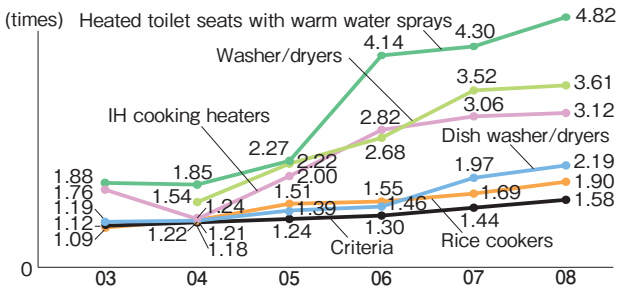
Further improvement in energy conservation performance

Comparing power consumption for 30 major products (P.13) sold in fiscal 2008 with those in fiscal 2007, we estimate that we will help reduce the consumption of electricity by 1,901 million kWh and save 41.8 billion yen in customers’ electricity costs over the next 10 years. Of 124 products accredited as Superior GPs in fiscal 2008, 79 products were accredited due to improvements in their energy conservation performance. Of these products, 28 products are included in the 13 “Specified Equipment” categories* in the Law Concerning the Rational Use of Energy. Through these products, we are greatly contributing to energy conservation.

In addition, we are striving to obtain approval for the use of labels that indicate energy conservation performance for products in various countries, And we make effort to help consumers more easily understand energy conservation performance of the products which are not targeted for such labels.

* Air conditioners, refrigerators, lighting equipment for general households, plasma TVs, LCD TVs, heated toilet seats with warm water sprays, rice cookers, microwave ovens, DVD recorders, PCs, copiers, automatic vending machines, and electric freezers

■ GHG Factors for major new products



■ Reduction of annual power consumption

Products	2000 models	2007 Models	Reduction (as compared with 2000 models)
Heated toilet seats with warm water sprays	DL-ST30	DL-GZ50	73%
Vending machines	NS-OR30	NS-8W36HP	62%
Washer/dryers	NA-SK60	NA-VR2200	60%
DVD recorders	DMR-E10	DMR-XP12	60%
Plasma TVs (42 inches)	TH-42PM30/S	TH-42PX70	50%

■ Reduction of power consumption in standby mode

Products	2000 Models	2007 Models	Reduction (as compared with 2000 models)
Plasma TVs (42 inches)	TH-42PM30/S	TH-42PX70	96%
Mobile phones	P2101V	P905i	82%
IH cooking heaters	KZ-321G	KZ-VSW33D	78%
Air conditioners (2.8 kw)	CS-E280A	CS-X288A	75%
DVD recorders	DMR-E10	DMR-XP12	70%

Case Heated toilet seats with warm water sprays

A microtubing heater is adopted to warm the aluminum toilet seat only when in use: when a user is detected, the seat is instantly warmed. This has resulted in a substantial reduction in the use of electricity, achieving annual power consumption of 81 kWh based on the 2012 energy conservation standards, and the achievement rate of the standards came to 167%.*1 Due to reduced power consumption, CO_2 emissions were also reduced by approximately 86 kg/year*2 compared with the Panasonic DL-G3 hot water storage type toilet seat.

*1 83 kWh/year and 163% for the DL-GZ30E4 and DL-GZ20
*2 Calculated by setting the CO_2 emission coefficient at 0.39 kg-CO_2/kWh

DL-GZ70、DL-GZ50、DL-GZ40、DL-GZ30E4、DL-GZ20

Case Environmentally-conscious lighting equipment W Eco

By combining a newly developed high-power 63-watt lamp with a special inverter, the environmentally-conscious lighting equipment W Eco lamp, which retains the standard size of a 40-watt fluorescent lamp, has achieved a brightness equivalent to two conventional 40-watt lamps with only one lamp. Due to the longer lamp life, the number of lamps usually used in 10 years has reduced to one-third. The special inverter controls the initial brightness of the lamp at an appropriate level and with this initial brightness correction function, the brightness is fixed at a certain level while energy consumption is reduced by approximately 35%.

The FSA610000 FXF9 direct-mount lamp for use in factories

A total of 24 models, including the FX619CAWF9 embedded-type lamp

Resource Conservation in Products

Concept/Future activities

Greater functionality together with enhanced resource conservation

Panasonic has been implementing resource conservation measures in addition to those to improve the energy conservation performance of its products. We are using our Resource Factor, which represents the resource efficiency* improvement rate (as compared with fiscal 2001), to measure our contribution to ensuring the most efficient utilization of resources through our products and services. We have set Resource factor targets within our GP Accreditation criteria, and are striving to develop technologies for resource conservation while improving our product functions. For 30 major products (P.13), we reduced the use of resources by 5,890 tons for products released in fiscal 2008 as compared with the use of resources for those released in fiscal 2007. The total mass of these 30 major products, however, amounts to as much as 403,000 tons on an annual basis (Japan only). Hence, we aim to further reduce the size and weight of our products in order to (i) reduce the amount of material use, (ii) reduce the rate of non-circulating resources over their life cycles,*2 (iii) use more recycled resources, and (iv) increase recyclable resources, thereby improving our overall resource efficiency. At the same time, we will reduce CO_2 emissions through material production.

*1 Resource efficiency = (Product life x product function)/ non-circulating resources over the entire life cycle

*2 Non-circulating resources over the entire life cycle: Resources extracted from the earth + amount of wasted resources = 2 x resources input throughout the life cycle - amount of recycled resources - amount of recyclable resources

Activity

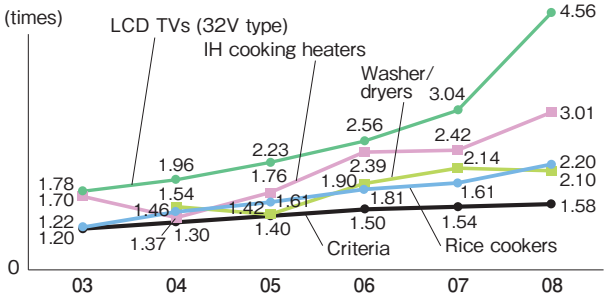
Pursuit of higher resource efficiency

For the resource conservation, it is essential to design products in a recycling-oriented manner. In order to achieve higher recycling rates* in an efficient way, in fiscal 2006 our product designers in Japan dismantled the products to identify problems associated with recycling. This activity was continued into fiscal 2007 and 146 models have been checked for their recyclability. The data and know-how thus collected on recycling technology are then incorporated into the in-house product design guidelines used by our designers. In fiscal 2008, we started to implement these measures on a global scale, including the experimental dismantling of our products in China. In the future, we will strengthen measures to reduce inefficient resource use at our manufacturing sites aiming at further resource conservation.

Environmental Technology Solutions Co., Ltd., established by Panasonic, recovers and recycles resin from four home appliance items. Panasonic uses some of the recycled resin in its products. In fiscal 2008, we used approx. 3,000 tons of recycled resin mainly for clothes washers and refrigerators same as in fiscal 2007.

* According to the Law for Recycling of Specified Kinds of Home Appliances in Japan, the recycling rate is defined as follows: Recycling rate=weight of components (materials) that are separated from wasted home appliances and that can be transferred with or without charge /weight of products

■ Resource factors of major new products



Case DVD Super Multi Drive

For the DVD Super Multi Drive UJ-844 series, Panasonic has achieved the world's thinnest* among optical disk drive products at 7 mm thickness by developing its own thin-type pickups. By reducing the thickness of the optical disk drive by 2.5 mm (approx. 26%) from 9.5 mm to 7.0 mm, we have helped reduce the thickness of notebook PCs. Further, we have adopted aluminum and other materials with low specific gravity for the product, and implemented measures to reduce the weight of its major components including the motor and mounting boards, thereby contributing to realizing lightweight PCs as well.

* For optical drive products (CDs and DVDs) for use in PCs (as of May 2007)

UJ-844 series

Case Digital high-definition camcorder

For the digital high-definition camcorder HDC-SD9/HS9, Panasonic has adopted a new-generation system LSI called new UniPhier to downsize the substrate. We used a 65-nm process for the LSI and concentrated various functions related to image and voice recording, such as real-time encoding of high-definition images, on one chip, whereas these functions are conventionally provided using four chips.

We have thereby reduced the product mass of the SD9 to approximately 275 g (approximately 81% of the previous model) and the volume to approximately 295 cm^3 (approximately 81% of the previous model), thereby making this SD high-definition movie camera even compacter. For the HS9, we have reduced the mass to approximately 390 g and the volume to approximately 398 cm^3, making the model the world's smallest and lightest HDD high-definition camcorder.*

* For HDD digital high-definition camcorders (as of January 9, 2008)

HDC-SD9／HS9

Management of Chemical Substances in Products

Concept

Product development with minimal use of chemical substances of concern

We are manufacturing products in line with our basic policy for managing chemical substances in products, which is to minimize the use of chemical substances that are most likely to affect the environment across their life cycles. In 1999, we published our Chemical Substances Management Rank Guidelines. In accordance with these guidelines, strict management of chemical substances has been in force group-wide. The use of Level 1 chemical substances is prohibited by law, and of course we do not use such materials. For chemical substances that may adversely affect the environment but which are not prohibited by law, we check our use of these substances as managed substances. Those substances that should partially be discontinued we define as Level 2 prohibited substances. Based on our Chemical Substances Management Rank Guidelines Version 5, which additionally include some fluorochemical surfactants, the use of which is now prohibited in the European Union (EU), and the specified benzotriazole-based ultraviolet (UV) absorbers, which is also now banned in Japan, as Level 1 chemical substances, we will further reduce the use of relevant chemical substances jointly with our suppliers.

■ Chemical Substances Management Rank Guidelines Ver. 5 (for products)

Ranks		Substances groups	Definitions
Prohibited substances	Level 1	15	·Substances whose use in products has been prohibited by laws and regulations ·Substances whose use in products will be prohibited by laws and regulations within one year from the revision of the guideline ·Substances whose use in products has been prohibited by Panasonic and its subsidiaries
	Level 2	1	·Substances whose use in products will be prohibited by treaties or laws as of the specified deadlines ·Substances whose use in products has been voluntarily restricted by Panasonic and its subsidiaries
Managed substances		11	·Substances whose actual use status must be further researched and whose impact on health and safety as well as appropriate treatment must be considered ·Substances whose use or non-use and the amount of use must be further researched

■ List of prohibited substance groups

Level 1	
Polychlorinated biphenyls (PCBs)	Cadmium and its compounds
Asbestos	Lead and its compounds
Specified organic tin compounds	Hexavalent chromium compounds
Short-chained chlorinated paraffin (C10-13)	Mercury and its compounds
Specified brominated flame retardants (PBB and PBDE)	Ozone-depleting substances (excluding HCFC)
Azo dyes and pigments forming specified amines	Formaldehyde
Polychloronaphthalene (number of chlorine is three or more)	Specified benzotriazole
	Perfluorooctanoic acid and its salts
Level 2	
Polyvinyl chloride (PVC) and its compounds, vinyl chloride copolymer	

■ List of managed substances

Antimony and its compounds (including alloys)	Organic tin compounds
Arsenic and its compounds (including alloys)	Brominated flame retardants (excluding PBBs and PBDEs)
Beryllium and its compounds (including alloys)	Ozone-depleting substances (HCFCs)
Bismuth and its compounds (including alloys)	Radio active substances
Nickel and its compounds (excluding alloys)	Phthalate esters
Selenium and its compounds (including alloys)	

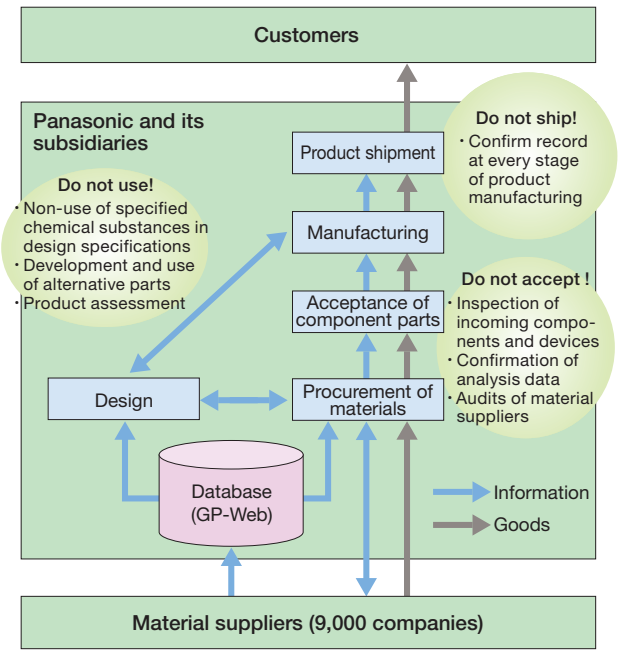
Activity 1

Promoting non-use of specified chemical substances globally

Panasonic has been globally expanding measures to discontinue the use of specified chemical substances in its products, including those regulated by the RoHS Directive,* which is already enforced in the EU. For example, we have introduced analyzing equipment to our manufacturing sites to check if specified chemical substances are contained in parts purchased from suppliers. In this way, we are preventing any acceptance, use, or distribution of specified chemical substances throughout our production activities at all our global sites, including product design and shipment inspections. Furthermore, in addition to our traditional certification system for those engaged in analyzing chemical substances, we have launched a system to educate and certify employees who have high testing skills and can instruct other analyst staff.

* The Directive bans the use of specified chemical substances (lead, mercury, cadmium, hexavalent chromium, and two specified brominated flame retardants) in electric and electronic equipment.

■ Specified chemical substance management system



Activity 2

Toward partial non-use of polyvinyl chloride resin

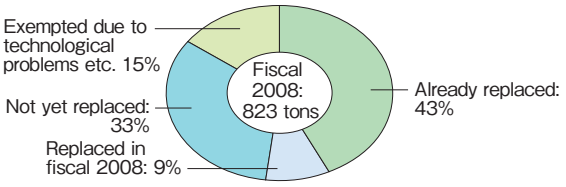
With regard to polyvinyl chloride (PVC) resin, there are concerns about the generation of hazardous substances through the inappropriate disposal of waste resin and the harmful effects of an additive (phthalate ester) used to soften the resin. Panasonic has decided to discontinue the use of PVC resin for internal wiring in its products newly released in Japan from April 2009 and on a global basis from April 2011, respectively, in consideration of the fact that it is not easy to separate PVC resin used in the internal wiring in devices for disposal. Also, for the use of PVC resin in parts other than internal wiring (such as power supply cords), we will develop substitute technologies and examine quality issues so that we can gradually discontinue the use of this resin.

In fiscal 2008, we replaced 75 tons of PVC resin used in internal wiring with a substitute, in addition to the 357 tons already replaced. For the use of the material in parts other than internal wiring, we replaced 279 tons used in the connection cords for video, sound, and communication devices and the joint parts of bathrooms, in addition to the 278 tons already replaced.

■Major products for which the use of PVC resin was discontinued

SD audio player (1 model)	Digital cameras (4 models)
Blu-ray disc recorders (3 models)	Digital video cameras (2 models)
DVD recorders (7 models)	LCD projectors (6 models)

■Replacement of PVC resin used in the internal wiring of products newly released in Japan



Activity 3

To build a system to communicate information about chemical substances used in components and products

As represented by the enforcement of the REACH regulations* in the EU, the world is moving toward the achievement of the targets agreed at the World Summit on Sustainable Development (WSSD), held in September 2002. Specifically, the world aims to produce and use all chemical substances in a manner that minimizes their impact on human health and the environment by 2020. In response to this trend, Panasonic has been involved in the establishment of the Japan Article Management Promotion Consortium as one of the corporate founders, and has since been actively participating in the activities of this cross-industrial organization.

*REACH are regulations governing the registration, evaluation, authorization, and restriction of chemical substances.

http://www.jamp-info.com/

Activity 4

Partnership with suppliers

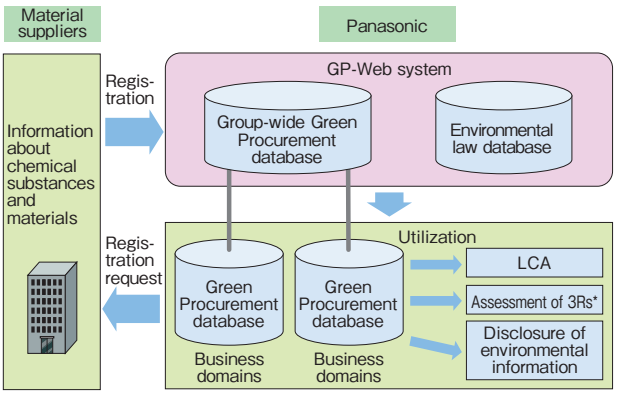
Panasonic procures components and materials from some 9,000 suppliers worldwide. In March 1999, we released our first Green Procurement Standards (Version 4 was issued in April 2006) alongside the Chemical Substance Rank Guidelines, aiming for manufacturing environmentally-conscious products in partnership with our suppliers. We request all our suppliers to respect our environmental policies and principles, to establish, maintain, and improve their environmental management systems (by acquiring ISO 14001 certification), and to improve the environmental performance of the materials we purchase from them. Furthermore, we created our own database, the GP-Web system, to centrally control the extensive data that we gather from suppliers on the chemical content of all parts and components purchased. This database has been shared with our suppliers around the world since fiscal 2005. We remain committed to providing the training and support needed by our suppliers worldwide for their improvement and growth, and to the continued auditing of their activities. At the same time, we are making preparations to comply with the REACH regulation in the EU.

■Green Procurement Standards

Four accreditation standards for suppliers
(1) Submission of non-use warranty certificates for the specified chemical substances based on the rank guidelines (2) Presentation of Content Survey Sheets for managed substances (quantity) and input into GP-Web (3) Establishment of Chemical Substances Management System and implementation of environmental quality assurance system audits (4) Establishment of Environmental Management System (EMS)(Acquisition of ISO14001 certification, environmental principles and policies, environmental management plans, product assessment, environmental impact assessment, education, information disclosure, rationalization of distribution)
Eight materials selection standards
(1) Compliance with laws and regulations concerning recycled recourses and energy efficiency (2) Nonuse of "prohibited substances" (3) Survey of chemical substance content (4) Reduction in environmental impact of chemical substances, polluted air, water, soil, etc. (5) Use of recycled resources and component parts, and energy and resources conservation through downsizing (6) Implementation of recycling-oriented design (7) Disclosure of environmental information about materials (8) Above requirements (1) - (7) also apply to packaging materials

panasonic.net/eco/suppliers/

■GP-Web system



* Reduce, Reuse, and Recycle resources

Super GP 2007 and Superior GP 2007

Energy conservation | Resource conservation | Chemical substances | Environmental creativity

Commodity item

❶Model number ❷Release date ❸Practical values for industry’s top level environmental performance as of release date
Inside a parenthesis is performance specifications of competitive products

Super GP-accredited products

DCVPRO P2 series
(AG-HPX500, AG-HPG10, AJ-HPX3000)

Power consumption in data copying reduced to one-hundredth, and a mass of the lifecycle media + a mass of the maintenance parts also reduced to one-tenth (compared with Panasonic conventional products) due to the adoption of the semiconductor memory “P2 card” and high-speed transmission technology

Lifinity ECO Management Systems
(BQEL 36242S, WTZN281, MKN20W and others)

Monitoring electricity for each of the main and branch breakers to identify power consumption by one entire household and by individual devices. The monitoring data will be edited in an easy-to-understand manner to help the household conserve more energy.

AVC Networks

High-definition DVD recorders (eight products)

	❶DMR-	❷	❸	
*A	XP11	*1	17.08 (22.74) kWh/year	Energy onservation
*B	XP21V		21.8 (25.3) kWh/year	
*C	XW31		19.64 (25.48) kWh/year	
*A, D	XW100	*2	17.45 (22.74) kWh/year 4.6 (5.1) kg	Energy onservation Resource conservation
*B, D	XW200V		22.9 (26.0) kWh/year	Energy onservation
*C, D	XW300		18.18 (23.1) kWh/year 4.6 (5.2) kg	Energy onservation Resource conservation
*A	XP12	*3	3.4 (4.9) kg	Resource conservation
*B	XP22V		19.7 (26.0) kWh/year	Energy onservation

*A. Equipped with 250 GB HDD *B. VHS/DVD recorder
*C. Equipped with 500 GB HDD *D. Equipped with a double tuner
*1. April 2007 *2 November 2007 *3 February 2008
Figures for energy conservation: annual power consumption:
Figures for resource conservation: mass of the main body

Blu-ray disk recorder/players (four products)

	❶DMR-	❷	❸	
*A	BW700	*1	40W (51W) 5.1kg (6.3kg)	Energy onservation Resource conservation
*B	BW800		5.1kg (5.3kg)	Resource conservation
*C	BW900		5.2kg (5.4kg)	Resource conservation
*D	DMP-BD30		26.28 (26.5) kWh/year 3.3kg (4.2kg)	Energy onservation Resource conservation

*A. Equipped with 250 GB HDD *B. Equipped with 500 GB HDD
*C. Equipped with 1 TB HDD *D. Player
*1. November 2007
Figures for energy conservation: rated power consumption for the BW700 and annual power consumption for the BD30:
figures for resource conservation: mass of the main body

Plasma TVs (15 products)

❶TH-	❷	❸	
65PZ750SK	*1	Non-use of lead in plasma display panels*4	Chemical substances
58PZ750SK			
50PZ750SK			
42PZ750SK			
50PZ700SK	*2		
50PZ700			
42PZ700SK			
42PZ700			
50PZ70	*1		
42PZ70			
50PX77S	*3	352 (361) kWh/year	Energy onservation Chemical substances
50PX70		352 (361) kWh/year	
37PX70S/SK		209 (218) kWh/year	
42PX70		28.0 (28.6) kg	Resource conservation Chemical substances
37PX70		209 (218) kWh/year 25.0 (26.9) kg	Energy onservation Resource conservation Chemical substances

*1. September 2007 *2. May 2007 *3. April 2007
*4. The use of lead in plasma display panels was discontinued for all the products listed above.
Figures for energy conservation: annual power consumption; figures for resource conservation: mass of the main body

LCD TVs (seven products) Energy conservation

❶TH-	❷	❸
32LX75S 32LX75	*1	128 (131) kWh/year
32LX70	*2	122 (131) kWh/year
26LX75S	*1	98 (104) kWh/year
26LX70	*2	93 (104) kWh/year
23LX70	*1	97 (103) kWh/year
20LX70		79 (85) kWh/year

*1. February 2007 *2. April 2007
Figures for energy conservation: annual power consumption

Digital high-definition cameras (Vertical full HD)

Resource conservation

❶HDC-SD7
❷September 2007
❸Mass: 290g (440g)

Digital high-definition cameras (Horizontal full HD equipped with HDD)

Resource conservation

❶HDC-HS9
❷January 2008
❸Mass: 390g (505g)

Digital high-definition cameras (Horizontal full HD)

Resource conservation

❶HDC-SD5
❷August 2007
❸Mass: 340g (370g)

Digital high-definition cameras (Horizontal full HD)

Energy conservation
Resource conservation

❶HDC-SD9
❷January 2008
❸Mass: 275g (370g)
Rated power consumption: 4.0W (4.3W)

Digital still cameras (Equipped with a built-in high-power zoom lens)

Resource conservation

❶DMC-FZ18
❷August 2007
❸Mass: 356g (365g)

Digital still cameras (Equipped with a compact zoom lens)

Resource conservation

❶DMC-TZ5
❷March 2008
❸Mass: 214g (220g)

Memory card portable recorder/players

Energy conservation
Resource conservation

❶AG-HPG10
❷August 2007
❸Mass: 1.1kg (7.2kg)
Annual power consumption: 93.5kWh/year (595kWh/year)

Memory card camera recorder

❶AG-HPX500
Energy conservation
❷May 2007
❸Annual power consumption 23 kWh/year (30 kWh/year)

Mobile notebook personal computers (14.1-inch LCD mobile PC with optical disk drive)

❶CF-Y7 series
❷May 2007
❸Mass: 1,520g (1,700g)
Operates on batterie for 7.5hours (6.5hour

Energy conservation
Resource conservation

Mobile notebook personal computers (12.1-inch LCD mobile PC with optical disk drive)

❶CF-W7 series
Resource conservation
❷November 2007
❸Drop test while in operation 76cm (72cm)

Popular-type liquid crystal projectors

Energy conservation
Resource conservation
Chemical substances

❶TH-AX200
❷October 2007
❸0.145 W/lm (0.210W/lm)
Mass: 4.9kg (5.0kg)
PVC-free power cable

Liquid crystal projectors (3,000 to 4,000lm class)

Energy conservation
Resource conservation

❶PT-F100NT ❷May 2007
❸Mass: 6.2kg (7.0kg)
Annual power consumption: 845kWh/year (850kWh/year)

SD audio players

Energy conservation

❶SV-SD850N
❷April 2007
❸Annual power consumption:
0.017kWh/year(0.02kWh/year)

SD stereo systems

Energy conservation

(Equipped with a hard disk)

❶SC-SX950
❷September 2007
❸Annual power consumption:
25.6kWh/year
(39.1kWh/year)

Mobile phones

Energy conservation

(904i series)

❶P904i
❷June 2007
❸Consecutive talk time per battery capacity:
0.236min./mAh(0.231min./mAh)

Mobile phones

Resource conservation

(W52 series)

❶W52P
❷June 2007
❸Product mass:
120g(127g)

Personal fax machines

Energy conservation

❶KX-PW507 series
❷August 2007
❸Annual power consumption:
11.6kWh/year
(14.7kWh/year)

Network cameras

Energy conservation
Resource conservation

❶WV-NP304
❷April 2008
❸Power consumption/volume/mass:
5.2W/625㎤/470g
(6.0W/862㎤/620g)

DVD super multi drives

Resource conservation

❶UJ-844 series
❷May 2007
❸Thickness/mass:
7mm/99g
(9.5mm/140g)

ETC(Electric Toll Collection)devices

(Separate type)

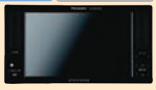
Resource conservation

❶CY-ET907D/KD
❷May 2007
❸Product mass:
140g(146g)

8-inch vertical liquid crystal monitors for vehicle onboard use

Energy conservation
Chemical substances

❶TR-M80WVS7
❷April 2007
❸Mercury-free backlight
Rated power consumption:
12W(13.5W)



Photographic printers for household use

Resource conservation

❶KX-PX2
❷June 2007
❸Product volume/product mass (main body):
approx. 1,332㎤/approx. 0.915kg
(approx. 1,402㎤/approx. 0.9385kg)

Photograph printers for household use

Resource conservation

❶KX-PX30
❷March 2008
❸Product mass:
approx. 0.9kg(approx. 1.2kg
Volume: approx. 1,443㎤
(approx. 1,770㎤)

High-speed color scanners

Energy conservation

❶KV-S4085CW
❷April 2008
❸Annual power consumption:
61.2kWh/year(68.8kWh/year)

Plate-making devices

Energy conservation

(Newspaper plate production units)

❶GX-9700
❷June 2007
❸Annual power consumption
(when applying current
10hours a day to produce
250copies): 2,740kWh/year(10,800kWh/year)

PLC adaptor

Energy conservation
Resource conservation

❶BL-PA300KT
❷March 2008
❸Product volume/mass:
approx. 158.4㎤/approx. 0.14k
(approx. 205.3㎤/approx. 0.16k
Power consumption in use/
annual power consumption:
3W(1W in standby mode)/40kWh/year
(4W[4W in standby mode]/70kWh/year)

2.2 megapixel IT-CCD handy cameras

(2/3-inch HD handy camera for broadcasting)

Energy conservation

❶AK-HC3500
❷February 2008
❸Annual power consumption:
124kWh/year
(139kWh/year)

Multi-format switchers for business use

(Small-sized digital video switchers for business use/for broadcasting stations)

Energy conservation

❶AV-HS400
❷December 2007
❸Annual power consumption:
358kWh/year
(986kWh/year)

Digital MCA portable radios

Energy conservation

❶EK-6170A
❷March 2007
❸Annual power consumption:
5.7kWh/year(6.6kWh/year)

Coaxial distribution relay amplifiers

(Device for mobile communication base stations)

Energy conservation
Resource conservation

❶EA-7HA 1MU/RU
❷July 2007
❸Power consumption and product mass:
95W and 13.2kg
(150W and 23.1kg)

Multi-branch optical repeaters supporting both old and new 800 MHz bands

(Optical and wireless accessing equipments)

Energy conservation

❶AD-4607RULDA
❷September 2007
❸Power consumption per band: 16.8W(24.0W)

Pure IP-PBX

Energy conservation

(Communication device used outside Japan)

❶KX-TDE100
KX-TDE200
❷August 2007
❸Power consumption in operation and standby modes(per port):
TDE100: 3.2 and 2.8W;
TDE200: 3.2W and 2.8W
(4.9 and 3.8W/4.8W and 3.7W)

Home Appliances

Heat pump-type tilted-drum washer/dryers

Energy conservation
Resource conservation

❶NA-VR2200
❷October 2007
❸Capacity: 6kg of laundry for washing and drying
Annual power consumption per 1kg of cloth: 52.0kWh/year
(57.5kWh/year)
Annual water consumption:
6.6㎥/year(6.8㎥/year)

Super energy-saving air conditioner X series

(2.2kW-class cooling ability)

Energy conservation

❶CS-X228A,
CS-228XB,
CS-22RJX
❷November 2007
❸Heating and cooling average COP: 6.62(6.39)

Instantly heated toilet seat with warm water sprays

Energy conservation

❶DL-GZ70, DL-GZ50,
DDL-GZ40, DL-ZX30E4,
DL-GZ20
❷October and November 2007
❸Annual power consumption: 71kWh(172kWh)

Steam microwave ovens
(Hot wind circulating method)
Energy conservation
❶NE-W300
❷May 2007
❸Annual power consumption: 71.0kWh/year (74.5kWh/year)

Steam IH jar rice cookers (four products)
Energy conservation
❶SR-SU1/SW1 series
❷May 2007
❸Energy conservation achievement rate
SU1 1.0L:93% (88%)
1.8L:96% (88%)
SW1 1.0L:95% (86%)
1.8L:97% (88%)

IH cooking heaters
Energy conservation
❶KZ-VSW33D
KZ-VS33D
❷September 2007
❸Water-heating efficien
(for aluminum pots):
76.4% (69.6%)

Dehumidifiers
(Dehumidifier (10 L/day) equipped with cooling functio
Resource conservation
❶F-YHD100
❷April 2008
❸Product mass:
12.0kg (12.4kg)

Natural refrigerant heat pump hot water suppliers
(Eco Cute)
Energy conservation
❶HE-K37AQS, HE-D37AYS
❷June 2007
❸Rated COP:
4.9 on new JRA standards
(4.9 on old JRA standard

Cooling units
(Cooling device for mobile base st
Energy conservation
❶BV-801WDE3
❷October 2007
❸Cooling ability
(nondisclosure)

Ceiling-mounted ventilation fans
❶FV-08VKM1
❷May 2006
❸Air volume per 1W:
7.27CFM/W (2.05CFM/W)
Power consumption:
11.3W (39.0W)
Energy conservation

Ventilation fans
(Ventilation fans equipped with electrical shutter)
Energy conservation
❶FY-08PFE8D
❷April 2007
❸Power consumption:
2.9/3.4W
(3.6/3.9 W)

PA-LOOK BALL PREMIER
(Fluorescent bulb balls)
Energy conservation
Resource conservation
❶EFD 10EL/E17 and others
❷April 2007
❸Power consumption: 7W (9W)
Lamp efficiency: 61lm/W (54lm/W)
Life: 10,000hours (8,000hours)

PA-LOOK PREMIER L
(28W circle fluorescent lamps)
Resource conservation
❶FCL 30ECW/28HL and others
❷April 2007
❸Life: 13,000hours
(12,000hours)

DICHRO PREMIER
(Halogen lamps)
Energy conservation
❶JDR 110V40WKM/5E 11-H
❷October 2007
❸Lamp efficiency:
58cd/W (44cd/W)

Cerameta H
(HID lamps)
Resource conservation
❶MF 400C- L/BU/360 and others
❷March 2008
❸Life: 18,000hours (15,000hours)

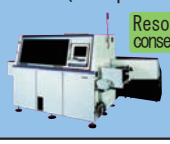
Long-life glow starter
Resource conservation
❶FG-1EL and others
❷April 2007
❸Life: 18,000starts
(min. 6,000starts)

Specified low-power wireless modules
❶GB-M1B series
❷March 2006
❸Received current:
11.6mA (including microcomputer)
(13 mA [excluding microcomputer])
Mass: 0.5g (1.0g)
Energy conservation
Resource conservation

Vending machines for bottled drinks
Energy conservation
❶NS-8W36HP
❷January 2008
❸Annual power consumption:
990kWh/year (1,205kWh/year)

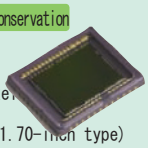
Others

Radial part injectors (two products)
❶RL131, RG131
❷February 2008
❸Product mass:
2,350kg (2,979kg)
Resource conservation

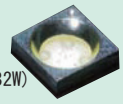


Devices

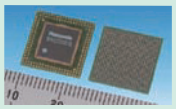
1/1.72-inch 12M CCD usable also for animations
Energy conservation
Resource conservation
❶MN39690PL
❷January 2007
❸Power consumption:
118.8mW (128.7mW)
Chip size: 12.19million pixe
for 1/1.27-inch type
(12.10 million pixels for 1/1.70-inch type)



Power Flash LED
Energy conservation
❶LNJ0H0V8KRA
❷September 2007
❸Luminance: 501x (331x)
Power consumption: 2.25W (2.82W)



UniPhier 4M
Energy conservation
❶MN2CS0036
❷October 2007
❸Power consumption:
11.9mAh (97.6mAh)



Source driver LSI for LCD TVs
❶MN838960
❷December 2007
❸Power consumption:
0.44W (0.87W)
Energy conservation

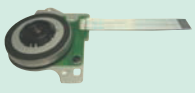
Size AA alkali dry batteries (EVOLTA)
❶LR6EJ
❷April 2008
❸Mass per capacity:
8.29g/Ah (8.38g/Ah)
240mA 1hpd
Discharge performance:
9.6hours (8.97hours)
Energy conservation
Resource conservation

Chargers
❶DE-A41/A42
❷April 2007
❸Standby electricity
0.1W (0.2W)
Energy conservation

Bamboo cone fiber speakers
❶EAS system,
EAB system
❷January 2008
❸Industry's first use o
bamboo fiber in speakers
(CO_2 absorption)
Environmental creativity

Light touch-switches
(Equipped with actuator)
Resource conservation
❶EVPAF series ❷May 2007
❸Mounting area: 7.8㎟ (11.3㎟)
Product height: 0.65mm (2mm)
Product mass: 0.0081g (0.0345g)

Small-sized spindle motors for multimedia devices
❶BWL2N series
❷June 2006
❸Motor mass:
18.49g (19.99g)
Resource conservation



AC servo motors
Resource conservation

❶MDME102P1C
❷December 2007
❸Product mass:
1kW: 5.2kg(6.5kg)
1.5kW: 6.7kg(8.3kg)

Motors for drum-type washers
Energy conservation

❶DRSA1W24S/R
❷September 2007
❸Motor efficiency
(washing/drying):
50%/82% (41%/76%)

Motors for electric vacuum cleaners
Resource conservation

❶SDS1200A
❷April 2007
❸Product mass/life:
1.96 = 1,175g/600hours
(3.14 = 1,100g/350hours)

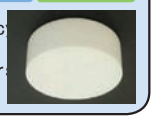
Small-sized spindle motor for CD changers
Resource conservation

❶BSL1T series
❷April 2007
❸Motor mass:
10.95g(12.53g)

Matsushita Electric Works, Ltd.

Bright Face series equipped with Spiral PA-LOOK
Energy conservation
Resource conservation

❶HFA5600 and others
❷May 2007
❸Energy consumption efficienc
90lm/W (78.4lm/W)
Life: 12,000hours(6,000hour
Mass: 1.2kg(1.5kg)



SPILE series compact spiral fluorescent downlights
Energy conservation
Resource conservation

❶NFM21710ENM and others
❷May 2007
❸Energy consumption efficiency:
42.0lm/W(10.2lm/W)
Lamp life: 10,000hours(1,500hours)

Lifinity Eco Management Systems
Enviromental creativity

❶BQEL 36242S and others
❷January 2008
❸To make an entire household to conserve energy effectively through energy management

Highly rigid prepreg for laser processing
Resource conservation

❶R-1551X
❷April 2006
❸Minimum thickness of a buildup layer with ensure rigidity: 40μm(60μm)

Rechargeable impact drivers
Resource conservation

❶EZ7543
❷December 2007
❸Mass: 1.42kg(1.46kg)

Surface Care BS-I
Resource conservation

(rain gutter)
❶MQSS 150SE (rain gutter) and othe
❷July 2007
❸Mass per unit length and life
38.6g/m(year) (59.9g/m(year)

Nano Care hair dryers
Energy conservation

❶EH5442
❷September 2007
❸Annual power consumption:
26.4kWh/year(55.2kWh/year)

Real Pro massage chairs
Energy conservation

❶EP3230, EP3530
❷February 2008
❸Annual power consumption:
23.56kWh/year,
19.0kWh/year
(180.5kWh/year)

Voice-operated fire alarms for household use
Resource conservation

❶SH28455, SH4400P
❷June 2007
❸Battery life: 10years(5years
Mass: 137g(160-192g)

Shinku Dannetsu You Hot electrical floor heating system
Energy conservation

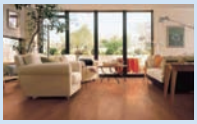
❶MLPKESP6H1
❷August 2007
❸Power consumption:
200kWh/month
(282 kWh/month)
Time required for warming:
11minutes(15minutes)

Alkaline ionized purifiers
Energy conservation

❶TK7508
❷March 2008
❸Annual power consumption:
16.6kWh/year(32.8kWh/year)

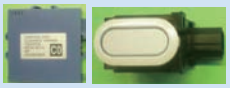
E Floor (AP Floor, S Coat Floor)
(Wooden flooring materials)
Resource conservation

❶EKM12**,
KEM9**, KEMS**
❷December 2007
❸Base material made 100% from recycled wood chips



Rudder angle-sensing small-sized dual sensors
Resource conservation

❶ADC3004****,
ADC3000****
❷February 2008
❸Mass: 236.5g
(Approx. 270g)



A4F narrow-pitch connectors
Resource conservation

❶AEX3, 4
❷January 2008
❸Mass (40cores):
0.032g(0.090g)
Volume (interlocked; 40 cores):
18.9㎣(57.6㎣)

Leakage breakers with easy-to-use remote controller
Resource conservation

❶BKFER22030RT
❷December 2007
❸Mass: 248g(570g)
Volume: 234.4㎤(534.4㎤)

Speedily washable air mattresses
Energy conservation
Resource conservation

❶VA136211, VA136212,
VA136221, VA136222
❷October 2007
❸Water used for cleaning:
32OL(1,060L)
Electric power consumed
for drying: 1.6kWh(6.5kWh
Product life:
10years(5years)

Residential distribution boards also usable for solar power generation systems
Resource conservation

❶BQE36223J and others
❷March 2008
❸Mass: 6.2kg(9kg)

Joba fitness machines
Energy conservation

❶EU7800, EU7700
❷November 2007
❸Annual power consumption:
EU7800: 28.8kWh/year
(34.2kWh/year)
EU7700: 26.9kWh/year
(31.2kWh/year)

3.5-inch LCD programmable displays
Energy conservation
Resource conservation

❶GT05M/S
❷October 2007
❸Annual power consumption:
GT05M:
7.2kWh/year
(21kWh/year)
GT05S:
10.8kWh/year
(39kWh/year)
Mass: GT05M: 230g(approx. 400g)
GT05S: 230g(approx. 400g)

Aicure UJ20 spot-type ultraviolet ray curing system
Energy conservation
Resource conservation

❶ANUJ5024
❷February 2007
❸Annual power consumption:
280.3 kWh/year
(451.1 kWh/year)
Volume: 1,508㎤(1,551㎤)
Mass: 1.0kg(1.9kg)

Highly-efficient LED downlights
Energy conservation

❶NNN21900 and others
❷February 2008
❸Energy consumption
efficiency: 57lm/W(50lm/W)

Wall-embedded wireless remote control switches for independent housing (two-line system)
Energy conservation
Resource conservation

❶WTC5661W: for on/off and light co
WTC5621WK: for on/off
and other purposes
❷July 2005
❸Standby power consumption:
0.57W, 0.08W(2W)
Mass: 120g, 125g(210g))

New Energy Products and Services

Panasonic’s efforts to reduce CO_2 emissions through ‘eco ideas’ for products are not limited to the development of energy efficient products. We also undertake the development of efficient energy-supplying products and services, which are now regarded as a promising new business segment.

Activity 1

Household Fuel Cell Cogeneration System

Based upon the chemical reaction of hydrogen and oxygen, fuel cell systems generate the electricity and heat to be used at a household. Though heat generated at a power station is wasted and cannot be utilized, the heat produced by a household fuel cell cogeneration system can effectively be used for hot water. Therefore, this new product realizes the efficient use of energy and contributes to the reduction of CO_2 emissions from households.

In April 2008, we established a mass production system in preparation for the release of this product to general users in fiscal 2010. At that time, we achieved a service life of more than 10 years and the world’s most efficient power generation efficiency of more than 38% in the practical usage range. As a result, the system can reduce CO_2 emissions by 12%* from the average level of conventional energy sources for households.

As of March 31, 2008, approximately 300 systems are in operation since the delivery of the first system to the Japanese prime minister’s official residence in February 2005.

* Based on research by Panasonic. The CO_2 emission coefficient is based on an all-power source average. According to the New Energy Foundation’s formula using CO_2 emission coefficient based on a thermal power average, it is equivalent to a 37% reduction.

Activity 2

Wind/solar Hybrid Tower Kaze-Kamome

Kaze-Kamome (Wind Seagull), which Panasonic launched in 2001, is a power generation system that combines a wind turbine and solar (photovoltaic) cells. The system generates power and illuminates auxiliary lighting as long as the wind velocity remains at a minimum of 1.5 meters per second—regardless of wind direction or whether it is day or night. The system has been adopted in many public facilities as it is suitable as an electric power supply in the event of an emergency.

As a recent actual result, 34 units had been installed in Oshihara Park (under construction) in Showa-cho, Yamanashi Prefecture, Japan. Kaze-Kamome was introduced as an energy-efficient lighting solution and for emergency lighting.

Kaze-Kamome installed in Oshihara Park

Activity 3

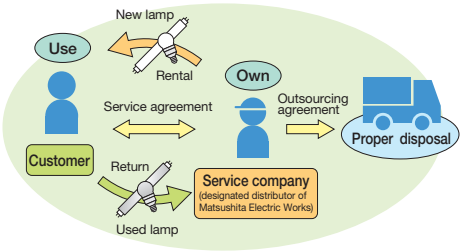
Light and Trust Service

Generally, most fluorescent lighting tubes discarded from factories and offices at the end of their service life are simply crushed and land-filled. In 2002, we commenced the Light and Trust Service. This service supplies the “function of light” by loaning the lighting tubes, rather than actually selling the lamps themselves.

In this business, service companies (designated distributors of Matsushita Electric Works) collect used fluorescent tubes to ensure appropriate treatment of the mercury and other hazardous chemical substances contained in tubes. Since November 2007, the glass taken from collected used fluorescent tubes has been recycled to make new fluorescent tubes. We have thus achieved a new advanced recycling scheme for turning used lamps into new ones. The number of companies utilizing the service is increasing each year. As of March 2008, we have service agreements with about 5,100 business sites belonging to 900 companies, thus promoting the proper treatment of used fluorescent tubes and recycling in Japan.

* This service falls under “Business offering lighting functions” in the Law on Promoting Green Purchasing, in Japan.

■Scheme of Light and Trust Service



Activity 4

Environmental conservation in communities using the electric power assisted bicycle

Our electric power assisted bicycle is equipped with an original electric motor unit, torque sensor, and high-performance lithium-ion battery. With these advanced components, it has enhanced its performance to the point where it is now replacing motorcycles for specialized uses, such as mail and newspaper deliveries, and police patrols. Replacing 90 cc motorcycles with this bicycle helps curtail annual CO_2 emissions by 542 kg per unit. To date, we have supplied this bicycle to the Kyushu Railway Company and other private railway companies as rental cycles for commuting and sightseeing. We have also delivered this product for shared use among housing complex residents. As a new means of transport, our electric power assisted bicycle is helping reduce the environmental impact in urban areas.

Electric power assisted bicycle

Packaging Materials

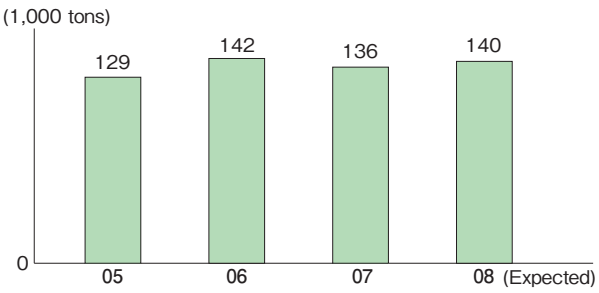
Concept

Proper use of packaging materials

Panasonic has been implementing a range of measures for the proper use of packaging materials: reducing the use of cardboard and foamed polystyrene materials; reusing packaging materials for transportation between its factories; using blister packs made from biomass plastics ; and improving load efficiency in transportation. Since 2002, however, our total use of packaging materials has been increasing due to an increase in the number of products manufactured outside Japan and then imported, and the introduction and increased sales of large, heavy products, such as plasma TVs and tilted-drum washer/dryers, for which a significant amount of packaging is required. In response, we are making efforts to curb the increased use of packaging materials by measures such as improving product strength and by selecting and designing appropriate buffer (cushioning) materials for each product item.

We have also formulated a company-wide policy aiming to reduce the use of foamed plastic buffer materials for new products to an amount less than that required for the previous model. We plan to start full-fledged implementation of the policy in fiscal 2009 for our 30 major products (see page 13) and representative models of each plant.

■Use of packaging materials (for products sold in Japan)

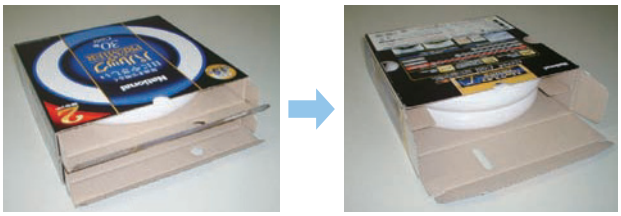


Activity 1

Reduction of packaging materials for set of two circular fluorescent lamps

Circular fluorescent lamps are often packed and sold in sets of two. However, we have previously used a box for each lamp and simply stuck the two boxes together to make the set. This required a lot of extra materials and entailed some difficulties in disposal. In addition, separation of adhesives used for bonding packages was also necessary. By changing packaging forms and specifications and packing the two lamps into a single box, we have substantially reduced the packaging materials, while ensuring protection of the product in transportation.

This initiative resulted in a reduction in the dimensions of packages from 0.366 m^2 to 0.236 m^2.



One-step scrapping makes disposal easier

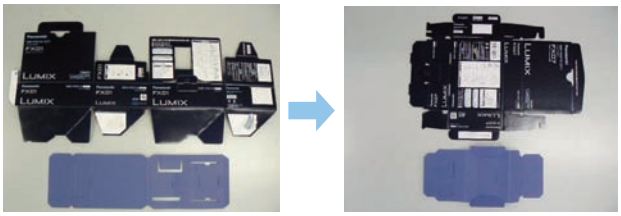
Activity 2

Compact packaging for the LUMIX digital still camera

Using only cardboard, we have devised a packaging form that is compact and simply structured, yet has brought about a solution to breakages caused by impacts from dropping.

Through an overhaul of dead space in an accessory case and improving product strength by design reviews, packaging volume was reduced from 1,691 cm^3 to 1,468 cm^3.

The weight of the packaging was also reduced from 125 g to 95 g, by detailed research into the optimal shape of box and buffering.



Smaller box and buffering achieved through search for optimal shapes

Activity 3

Measures to reduce the use of foamed polystyrene

One of our products for which a lot of foamed polystyrene is used as a buffer material, is tilted-drum washer/dryers. Tilted-drum washer/dryers are heavier than the usual automatic washing machines and thus tend to need more foamed polystyrene with higher buffering performance to fully protect the product during transportation and storage. However, we endeavored to reduce the buffer material each time we developed a new model. In the 2007 product model, VR1200, the use of foamed polystyrene was reduced by 1.9% to 713 g compared with the previous year's VR1100 (727 g).

Green Marketing

Panasonic is making efforts to convey information on the environmental performance of our products in an easy-to-understand manner. Through this activity, we hope that more customers will choose our environmentally-conscious products and thus reduce environmental impact in their lifestyles. We also engage in various activities to help our customers to use such products appropriately over a longer period of time.

Initiatives using environmental labels

Activity

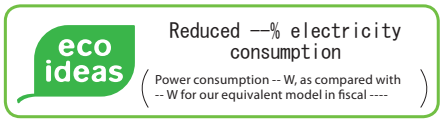
Using catalogs and labels to indicate the environmental performance of our products

Panasonic indicates that a given product is environmentally conscious by displaying environmental labels on the product and in our catalogues. This labeling is designed to convey our environmental technology information on the product in an easy-to-understand manner to help our customers make smart choices when considering which products to purchase. Out of the new products released in fiscal 2008, 948 models were registered under the Type Ⅱ label. In fiscal 2008, we introduced a new design for Type Ⅱ labels, carrying the phrase, ‘eco ideas’. We are currently working on all three types of environmental declaration categories.

By acquiring the International Energy Star label, well recognized in Europe and North America, as well as Chinese environmental labels, Panasonic aims to offer environmentally-conscious products that actually surpass the certification criteria for these labels and to provide greater opportunities to convey our products’ environmental information on a global basis.

* ISO (International Standardization Organization) defines three categories of environmental label or declaration for environmentally-conscious products: products accredited by each country’s accreditation organization (Type I); products self-declared by the manufacturer as environmentally-conscious (Type II); and products displaying quantitative environmental impact data (Type III).

■Environmental appeal in our catalogues



Type Ⅱ Panasonic’s environmental declaration label

Type Ⅰ Ecomark

Type Ⅲ declaration Eco-Leaf label

Energy Star declaration mark

■Environmental labels used in China

Energy conservation Certification label | Water conservation Certification label | China Environmental Labelling Type Ⅰ | China Environmental Labelling Type Ⅱ | China Ecolabelling

Data

■List of Type Ⅰ Ecomark products in Japan

Items	Number of models	
	Fiscal 2008 results	Total number of models*
Electrostatic copiers	6	23
OA paper	0	0
Ceiling material	0	38
Wiring floor	0	3
Cooking oil cleaner	0	2
Soundproofed floor mat	0	1
Total	6	67

* Number of models released as of March 31, 2008

■List of registered Eco-Leaf Environment Labels (Type Ⅲ) in Japan

Items	Number of models	
	Fiscal 2008 results	Total number of models*
Fax machines	4	14
Business fax machines	0	2
Electrostatic copiers	0	1
Optical disc drives	0	2
Interphones	5	14
Fixed telephones	8	19
Network cameras	7	21
PBX systems	2	6
Electronic whiteboards	3	6
Scanners	1	3
Wiring floor	3	3
Photo printers	2	2
PLC modems	5	5
Total	40	98

* Number of models released as of March 31, 2008

■Lists of products satisfying the International Energy Star Standard

Items	Number of models
	Number of models accredited in fiscal 2008
Computers	33
Personal fax machines	3
Business fax machines	0
Multi-function machines	6
Printers	2
Scanner	1
Total	45

* Products that are registered under the International Energy Star Program of Japan

http://www.eccj.or.jp/ene-star/index_esu.html

■Lists of products that acquired environmental labels (China)
From April 2007 to March 2008

Items	Energy conservation	Water conservation	China Environmental Labelling		China Ecolabelling
			Type Ⅰ	Type Ⅱ	
Plasma TVs	15	–	–	8	–
LCD TVs	5	–	–	4	–
DVD players	6	–	–	–	–
LCD projectors	10	–	–	–	10
Washer	15	15	–	–	–
Rice cookers	23	–	–	–	–
Air conditioners	11	–	–	–	–
Refrigerators	9	–	–	–	–
Microwave ovens	32	–	–	–	–
Multi-function machines	8	–	8	–	–
Printers	3	–	–	–	–
Fax machines	4	–	–	–	–
Lighting fixtures (lamps)	31	–	–	–	–
Total	172	15	8	12	10

Activity

Products conforming to the Law on Promoting Green Purchasing

Panasonic is actively dispatching green purchasing-related information to customers. On our website, we post a list of our products that conform to the Law on Promoting Green Purchasing. We have registered such product models in the Ministry of the Environment's database, which supports green purchasing under the Law. We have also registered those products that satisfy the requirements of the GPN guidelines in the GPN Database, a comprehensive database on products with extensive environmental data.

panasonic.co.jp/eco/gp_info/

■ Number of product models that conform to the Law on Promoting Green Purchasing (as of March 31, 2008)

Product name	Number of models	Product name	Number of models
Lighting fixtures	139	Fax machines	18
Personal computers	84	Car navigation systems	18
Lamp bulbs*1	72	Television sets	14
Air conditioners	59	Electronic whiteboards	12
Electric hot water suppliers	43	Primary batteries	10
Fluorescent lamps*2	40	Scanners	5
Refrigerator-freezers	32	Small-sized rechargeable batteries	4
Heated toilet seat with a warm water sprays	26	Tonner cartridge	4
Multi-function machines	24	ETC in-vehicle units	3
Recording media	20	Disposers (recyclers)	3

*1 Straight fluorescent light *2 Bulb-shaped fluorescent light

Marketing Campaign

Activity

Implementing 'eco ideas' campaigns

Since 2003, we have implemented the N's Eco Project as an integrated marketing activity, which has the dual purpose of expanding the use of energy-efficient products and planting trees in cooperation with our customers. By fiscal 2007, we had planted 6,248 trees throughout Japan. In fiscal 2008, we launched the 'eco ideas' campaign to plant trees in Vietnam in proportion to the number of applicable product units sold. We set out to plant approximately 500,000 trees. Panasonic will continue to implement effective campaigns that can contribute to the prevention of global warming.

■ Environmental benefits obtained during N's Eco Project campaigns

Period	Campaign	Environmental benefits*
First-half fiscal 2004	A new tree for each new child	Approx. 550,000 ton reduction in CO_2 emissions
Second-half fiscal 2004	Trees and schools - a great combination	
First-half fiscal 2005	Let's plant a commemorative tree	Approx. 550,000 ton reduction in CO_2 emissions
Second-half fiscal 2005	N's Eco Project - turn the world green	
First-half fiscal 2006	Let's draw Eco Pictures and plant more greenery!	Approx. 800,000 ton reduction in CO_2 emissions
Second-half fiscal 2006		
Fiscal 2007	Let's plant trees with Green Santa!	Approx. 490,000 ton reduction in CO_2 emissions
Fiscal 2008	Plant a tree in exchange for a home appliance Let's create Green Santa's forests together!	Approx. 700,000 ton reduction in CO_2 emissions

* Possible annual reduction in CO_2 emissions by our major energy and water conserving products compared with our products of 7 to 10 years ago. (The electricity CO_2 emission coefficient is 0.39 kg-CO_2/kWh.)

Repairs and Servicing

Concept

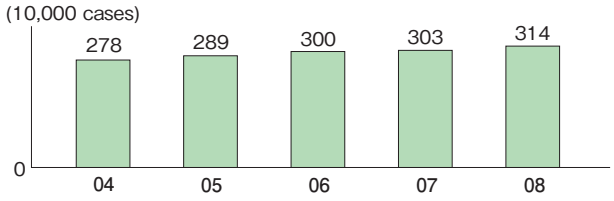
Reflecting customers' opinions in product development

Aiming at the effective use of resources and the reduction of waste, as well as helping customers to use our products over a longer period of time, Panasonic's technical division has sought for designs that are as resistant to faults as possible and that are easy to repair in the event of a trouble. At the same time, our servicing division is endeavoring to establish an efficient repair and servicing system and to enhance its technical capabilities.

To help customers use our products appropriately and efficiently, we provide information on our website and in booklets. And opinions from customers are analyzed on a daily basis, shared among our related divisions, and reflected in our business operations.

panasonic.co.jp/cs/

■ Number of repair cases by Matsushita Technical Services



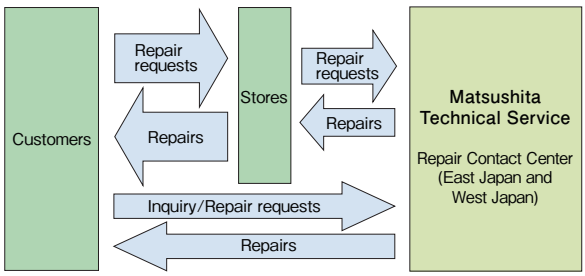
Activity

Providing fast repairs through our efficient network and management system

In Japan, repair services are usually provided by approx. 20,000 community-based stores that mainly sell our products. We also receive repair requests at the Repair Contact Centers established by Matsushita Technical Services.

To offer a speedy and low-cost repair service, Matsushita Technical Services uses a Repair Operation Management System that manage repairs and servicing tasks centrally, such as scheduling repair visits, confirming reservations, and procuring the necessary repair parts. The system is now operated throughout Japan.

■ Repair/servicing request flowchart



Clean Factories

Through ‘eco ideas’ for manufacturing, Panasonic promotes various activities to reduce environmental impact in its our manufacturing processes, from product planning and design to production, distribution, sales, and recycling.

For Clean Factories (CF) initiatives in particular, we place an emphasis on global warming prevention, reduction of total waste and reduction of the release and transfer of chemical substances. We are endeavoring to minimize all inputs and outputs and to make all our manufacturing sites Clean Factories.

■ Reduce CO_2 in all manufacturing processes

Fiscal 2008 Targets and Results

Basic targets

- ●CF Accreditation Rate: 66%
  - Result 85%

Environmental performance targets

- ●CO_2 emissions per basic unit: 7% reduction
  - Result 33% reduction
- ●Release/transfer of Key Reduction-target Substances: 4% reduction (from fiscal 2006)
  - Result 16% reduction
- ●Total waste arisings (made up of factory generated waste and revenue-generating waste) per basic unit: 14% reduction
  - Result 38% reduction
- ●Water consumption per basic unit: 7% reduction
  - Result 47% reduction

●Costs

- ・Global warming prevention measures: 2.66 billion yen
- ・Waste reduction: 5.84 billion yen
- ・Effective utilization of water: 0.22 billion yen

●Benefits

- ・Energy conservation benefit: 5.84 billion yen
- ・Reduced cost of waste treatment: 2.08 billion yen
- ・Reduced water supply/sewage cost:* 0.51 billion yen

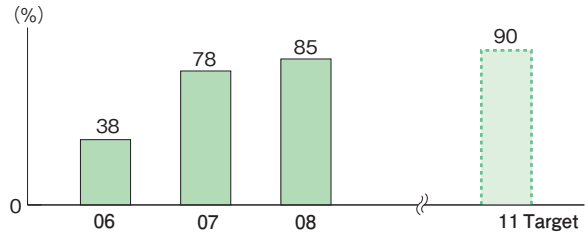
* Included in Economic effects of resource recycling in Environmental Accounting

Achieved CF Accreditation Rate of 85%

In fiscal 2006, we introduced the CF Accreditation System in Japan evaluated based on our own criteria, to accelerate improvement of the environmental performance of all our factories. We have started this initiative outside Japan in fiscal 2007, and emphasis is being placed on manufacturing sites in China.

In fiscal 2008, 254 factories were accredited under the system, which reached an 85% CF accreditation rate, surpassing the target of 66%. We aspire to achieve a CF Accreditation Rate of more than 90% by fiscal 2011.

■ CF Accreditation Rate



●CF Accreditation System

This system numerically evaluates each factory’s continuing efforts for the reduction of environmental impact and site-specific CF activities. Factories’ achievements are graded by numerical points in terms of the three mandatory performance targets of global warming prevention, reduction of total waste arisings, and reduction of release and transfer of chemical substances, as well as in terms of a voluntary target of reduction of water consumption, and those meeting the criteria are accredited as Clean Factories. The same indicators as those in the Three-Year CF Plan and Performance Evaluation for Environmental Sustainability Management are applied in this system so as to concurrently promote these plans.

■ Evaluation items and indicators for CF accreditation

	Items	Indicators	Definition
Mandatory	Prevention of global warming	Energy-conservation rate	Amount of energy consumption reduced in the current fiscal year (converted to CO_2) / Amount of energy consumption in the previous fiscal year (converted to CO_2)
	Reduction of total waste arisings	Total waste arisings reduction rate	Reduction in total waste arisings in current fiscal year / Waste arisings in previous fiscal year
		Recycling rate	Recycled amount / Recycled amount + final disposal amount
	Reduction of chemical substances release/transfer	Reduction rate of release/transfer of Key Reduction-Target Substances*	1 − Released/transferred amount of Key Reduction-Target Substances in current fiscal year / Released/transferred amount of Key Reduction-Target Substances in the base year
Voluntary	Effective use of water	Reduction rate of water consumption	Amount of water consumption reduced in current fiscal year / Amount of water consumption in previous fiscal year

* See Definition of Key Reduction-target Substances (P.31).

9 factories accredited as Superior CFs

We recognize CF-accredited sites, which have implemented top-class activities to reduce environmental impact in each country, as Superior CFs. In fiscal 2008, 9 factories were accredited as Superior CFs.

Case Initiative towards becoming a Superior CF

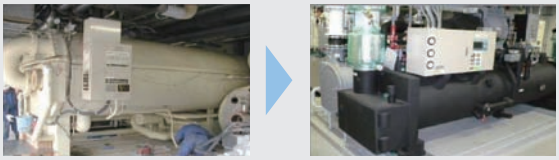
● Panasonic Semiconductor Opto Devices Co., Ltd.

Panasonic Semiconductor Opt Devices in Hioki City, Kagoshima, Japan mainly manufactures LEDs and PDP data driver modules.

In energy conservation, this factory reduced its CO_2 emissions by approximately 1,300 tons a year through the introduction of high-efficiency inverter turbo chillers and by inverter control of air-conditioner fans. For these energy-saving activities, the factory received Director-General's Award the Kyushu Bureau of Economy, Trade and Industry as an excellent energy management plant for fiscal 2008.

The company also achieved a 1.3-ton reduction in its annual consumption of volatile organic solvents by managing their optimum use in the semiconductor production processes. It also promotes factory greening and received the 2008 President Award of Nihon Ryokuka Center, in Japan (the Japan Greening Center) for this activity.

Greenery on the factory premises



Introduction of a high-efficiency inverter turbo chiller

Transforming all Panasonic factories in China into Clean Factories

Panasonic launched the China Eco-Project in fiscal 2008 to make a positive contribution to addressing the worsening environmental problems in China.

With fiscal 2010 set as the target year, Panasonic aspires to achieve the following targets: (1) CF accreditation for all its factories; (2) achievement of the environmental performance targets set specifically for factories in China; (3) success by all factories in a clean production audit to make their achievements visible; and (4) to receive the National Environment-Friendly Enterprises commendation or similar recognition from the provincial government or the direct-controlled municipality by pioneering sites. For environmental performance targets, we aim to achieve the key environmental targets set in the 11th Five-Year National Economic and Social Development Plan one year ahead of schedule.

In fiscal 2008, we were able to achieve the Chinese environmental performance and the CF accreditation ratio targets. In addition, 5 factories passed clean production audits.

■ China Eco-Project targets and results

Base year: FY 2006; Target year: FY 2010

Category	Indicator	FY 2010 Target	FY 2008 Target	FY 2008 Result
Clean production audit	Number of factories passing the audit	55 companies in total	7 additional companies (13 in total)	5 additional companies (11 in total)
CF accreditation	CF Accreditation Ratio	100%	50%	93%
Reduction of CO_2 emissions	CO_2 emissions per unit of production	Reduced by 20%	Reduced by 10%	Reduced by 17%
Reduction of total waste arisings	(1) Total waste arising per unit of production (2) Recycling rate*1	(1) Reduction by 30% (2) 90% or higher	(1) Reduction by 15% (2) 90% or higher	(1) Reduction by 27% (2) 94%
Reduction of chemical substances	Release/ transfer of Key Reduction-Target Substances*2	Reduction by 10%	Reduction by 5%	Reduction by 8%
Reduction of water consumption	Water consumption per unit of	Reduction by 30%	Reduction by 15%	Reduction by 34%

*1: Recycling rate = Recycled amount/ (Recycled amount + final disposal amount)

*2: Key Reduction-Target Substances: Total of 368 substances selected by the Company Substances recording highest levels of release/transfer in the Japan's Pollutant Release and Transfer Register survey, substances recording highest levels of release in the Matsushita Group chemical substances survey, substances specified by the Law Concerning the Promotion of Measures to Cope with Global Warming, and substances recording highest levels of VOC release/transfer.

Case Activities by a factory that passed the clean production audit

● Panasonic Electric Works Automation Controls (Shanghai) Co., Ltd.

To pass the clean production audit, this company, a manufacturer of switching devices, started its efforts in August 2007. In March 2008, it underwent the on-site audit by the Shanghai municipal government and passed it.

The company efficiently implemented company-wide activities to pass the audit by combining its ISO14001 and cost-cutting efforts. It completed 25 programs that aimed mainly at achieving energy conservation in air conditioners, which accounted for 36% of the total energy consumption at the factory. While investing the total amount of 2.64 million RMB (Chinese currency), it achieved economic benefits estimated at an equivalent to 2.37 million RMB annually, as well as environmental benefits of a CO_2 emission reduction rate of 12.8%, and a 7% reduction in total waste arisings.

Moreover, in an effort to achieve even greater energy conservation, the company introduced energy measuring instruments manufactured by Tatsuno Matsushita Electric Works, Ltd. to make the status of electricity consumption visible and to identify energy-wasting operations.

Newly introduced energy-saving equipment for air-conditioners

Self-developed energy measuring instruments developed by a group company

Factory Energy Conservation

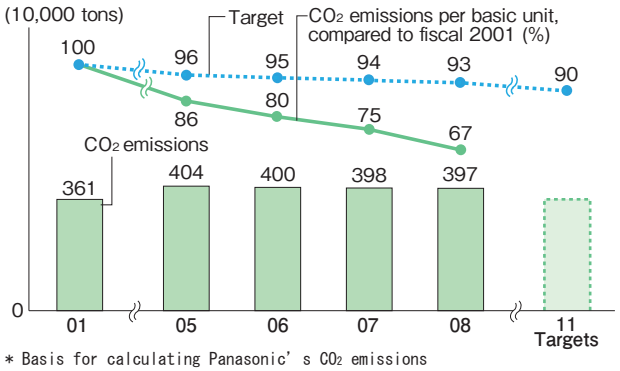
Concept/Future activities

Reducing CO_2 emissions by 300,000 tons in 3 years

Our global target for reducing CO_2 emissions from factories up to fiscal 2008 was to reduce CO_2 emissions per basic unit*1 by 10% from fiscal 2001 levels by fiscal 2011. In 2008, we were able to reduce emissions by 33%.

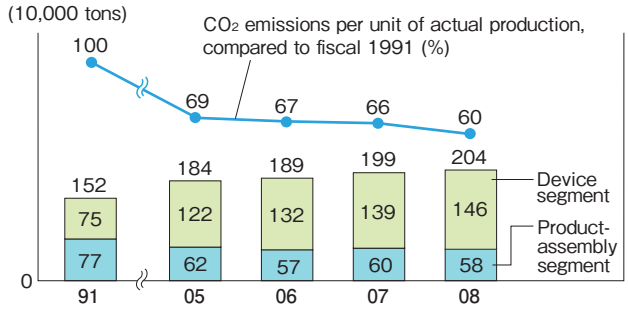
In Japan, our industry is seeking to achieve the target*2 set for fiscal 2011 by the four electrical and electronics-related associations to reduce CO_2 emissions per unit of actual production by 35% from 1991 levels. In fiscal 2008, Panasonic successfully achieved this target, realizing a 40% reduction from 1991 levels.

■ CO_2 emissions per basic unit



* Basis for calculating Panasonic’s CO_2 emissions
The GHG protocol’s CO_2 emissions factors for each country are used for electricity purchased outside Japan.
The factors of fuels are based on the Guidelines for Calculating Greenhouse Gas Emissions from Businesses (Ver. 2.2) by the Ministry of the Environment, Japan

■ CO_2 emissions per unit of actual production (Japan)



* The factors used for purchased electricity are the average of all types of power at the using end, reported by the Federation of Electric Power Companies of Japan.
* CO_2 emissions factors for individual fiscal years are: 0.410 kg CO_2 /kWh (fiscal 1991), 0.421 kg CO_2/kWh (fiscal 2005), and 0.425 kg CO_2/kWh (fiscal 2006 and 2007). The value for fiscal 2008 is 0.41 kg CO_2/kWh .

■ Energy-conservation rate* targets and results (fiscal 2008)

	Target	Result
Product-assembly segment (Assembly and processing)	3.5%	4.9%
Components and device segment (Components, semiconductors, etc.)	7.0%	5.5%

* Amount of energy consumption reduced in the current fiscal year (converted to CO_2) / Amount of energy consumption in the previous fiscal year (converted to CO_2)

We also set an energy conservation rate as an internal indicator for the reduction of CO_2 emissions and exceeded this target. As for greenhouse gases other than CO_2, such as HFCs used as a refrigerant of air-conditioners, PFCs and SF_6 used for semiconductor production, we reduced these by approximately 70,000 tons.

Now that we have achieved the targets per basic unit both in Japan and overseas, Panasonic has established new, volume-based targets to replace the previous per basic unit-based targets. In fiscal 2008, we reduced by 0.1% in gross volume. On a global basis, we are aiming for reduction of CO_2 emissions from manufacturing sites by 300,000-ton in fiscal 2010 from fiscal 2007 levels, and for a reduction in fiscal 2011 to a level of fiscal 2001.

To be specific, we intend to promote the reduction of factory CO_2 emissions by reviewing the Three-Year CO_2 Emissions Reduction Plans to be prepared by each factory.

*1 Basic unit = CO_2 emissions / (consolidated sales / Bank of Japan’s corporate goods price index (electrical machinery and equipment))
*2 The Voluntary Action Plan on Global Warming Measures of four electrical and electronics-related associations: Japan Electrical Manufacturers’ Association, Japan Electronics & Information Technology Industries Association, Communications and Information Network Association of Japan, and Japan Business Machine and Information System Industries Association.
*3 Actual production = nominal production / Bank of Japan’s corporate goods price index (electrical machinery and equipment)

Activity 1

Company-wide promotion committee established to globally implement effective reduction measures to accelerate CO_2 emission reductions

In April 2008, a Corporate CO_2 Emissions Reduction Promoting Committee was established. The committee collects and accumulates information and experiences concerning the energy conservation programs being implemented at Panasonic factories. A number of model initiatives are implemented cross-divisionally to achieve a substantial CO_2 emission reduction on a global basis.

In addition, we have stepped up our efforts by focusing on semiconductor and PDP drive production divisions, and manufacturing sites in China, where an increase in CO_2 emissions is evident. An energy-conservation technical support team comprising experts at Panasonic and group subsidiaries, are dispatched to those divisions and sites requiring intensive initiatives to reinforce measures for CO_2 reductions.

Moreover, we have listed specific energy conservation check items, such as use of heat insulating paint on roofs, heat retention for steam pipework, and heat recovery from waste gas. Such check items are compiled into the 33 Energy Conservation Items and being used for comprehensive inspections at all our factories.

Activity 2

Making energy losses visible by utilizing FEMS*

Panasonic's energy management centers on measurement assessments, which incorporate energy management techniques stipulated in the Energy Conservation Law into our Environmental Management System. Energy consumption is measured with special instruments to make the usage status visible, to make energy losses obvious, and to promote remedial measures. For production lines, for example, time-series changes in power consumption per product unit are analyzed to detect energy losses from excess or idle operations. Energy consumption at the production line can be improved by addressing these problems. We will proactively introduce FEMS as the first step toward reducing gross CO_2 emission volumes.

* FEMS: Factory Energy Management System

Activity 3

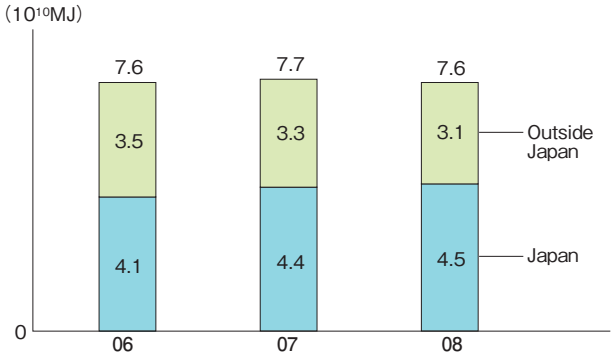
Promoting factory energy conservation as CDM* projects

Taking advantage of many factories in China and Southeast Asia, we are promoting efforts to reduce CO_2 emissions on a global level, by employing the Clean Development Mechanism (CDM). In fiscal 2005, we started our energy conservation initiatives at factories in Malaysia to be registered as CDM projects. In March 2007, we became the first Japanese company to receive approval for its CDM project from the United Nations in the category of energy conservation at factories. The project is now well underway.

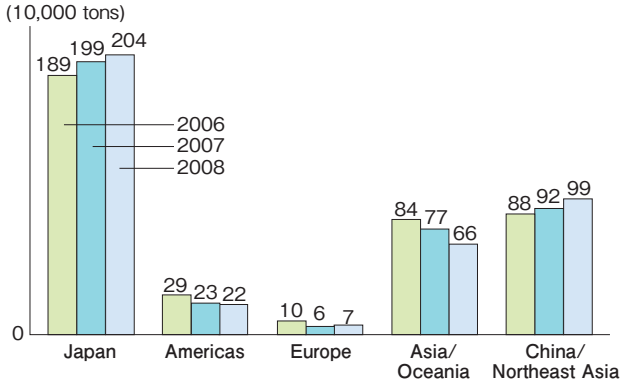
* Clean Development Mechanism: A method authorized by the Kyoto Protocol, whereby industrialized nations undertake initiatives to reduce GHG emissions through rendering financial and technical assistance to developing countries.

Data

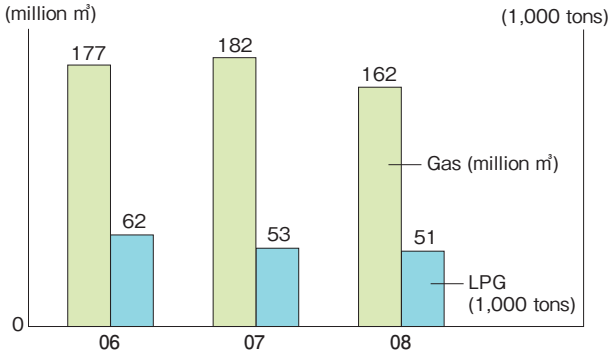
■ Energy consumption (global)



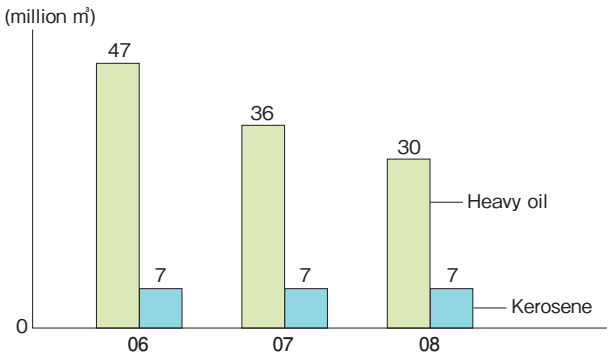
■ CO_2 emissions



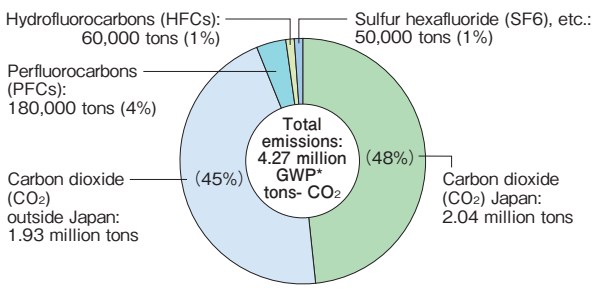
■ Gas/LPG consumption (Japan)



■ Heavy oil/kerosene consumption (Japan)



■ Composition of GHG emissions (tons- CO_2)



* GWP: Global Warming Potential, conversion of each GHG's greenhouse effect to CO_2

■ Renewable energy consumption (Japan)

Fiscal 2008	64,000 kWh

Chemical Substance Management at Factories

Concept/Future activities

Management of chemical substances according to three ranks

To reduce the risk of environmental pollution involved in the use of chemical substances, Panasonic began to manage chemicals by issuing Version 1 of the Chemical Substances Management Rank Guidelines (hereinafter, Rank Guidelines) in 1999, based on a survey of 327 substance groups by four Japanese electrical and electronics-related associations. In fiscal 2002, we expanded this list to include substance groups specified by the Japanese Pollutant Release and Transfer Register (PRTR) Law, and several other substances groups based on hazard assessments,* which resulted in our Rank Guidelines Version 2.1, covering 509 chemical substance groups. And to define the objectives of chemical substance management more specifically, separate product and factory versions of the Rank Guidelines were prepared. In fiscal 2005, we further upgraded the Rank Guidelines to Version 3 by taking into consideration the Occupational Health and Safety Law in Japan, and various other laws and regulations on chemical substances, in addition to the Law Concerning the Examination and Regulation of Manufacture, etc. of Chemical Substances, and our own hazard assessments. In fiscal 2008, we issued Version 3.1, which incorporated measures to deal with new substances subject to regulation.

Through these measures, we endeavor to conserve the environment around factories, reduce risks at factories, and improve occupational health and safety.

* Hazard assessment: an assessment to classify substances into ranks based on carcinogenicity assessments undertaken by various international organizations, the U.S. and Japan.

■ Chemical Substances Management Rank Guidelines Version 3.1 (for Factories)

Rank	Definition	Substance group (Substance)
Prohibition	Prohibiting use	62 (639)
Reduction	Reducing the amount released/transferred	192 (747)
Management	Managing the amount used, released/transferred, and reviewing rankings regularly	294 (2,136)
Total: 548 substance groups (3,522 substances)		

panasonic.net/eco/suppliers/

Activity

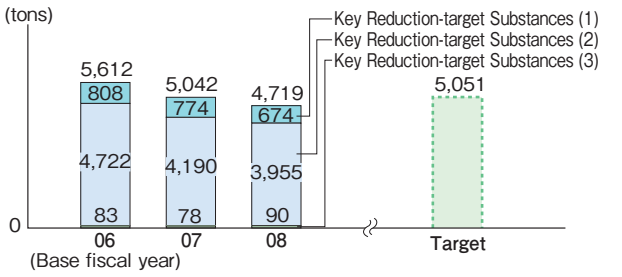
Reduction of Key Reduction-target Substances

In fiscal 2007, 368 substances were selected as Key Reduction-target Substances that have a particular impact on the environment (substances whose amounts released/transferred are significant, and those that cause air pollution and global warming). We set new targets to reduce their release/transfer on a global basis by 10% below 2006 levels by fiscal 2011. Substances other than Key Reduction-Target Substances will be managed in the conventional manner, based on the definitions in the Rank Guidelines. In fiscal 2008, we reduced the use of such substances through ongoing development of new production technologies and a review of manufacturing processes, and these measures resulted in a reduction in the amounts released/transferred. To reduce volatile organic compounds (VOCs) whose amounts released/transferred are particularly large among the Key Reduction-Target Substances, we introduced equipment for detoxifying and recovering VOCs, reorganized and consolidated manufacturing sites, replaced solvent-based materials with water-based materials, and switched solvent coating to powder coating. Owing to these efforts, the amount released/transferred in fiscal 2008 decreased by 16% from fiscal 2006 levels. To achieve our medium-term plan aiming to reduce environmental impact, each site is implementing its own specific Three-Year Chemical Substances Reduction Plan.

■ Definition of Key Reduction-target Substances (368 substances)

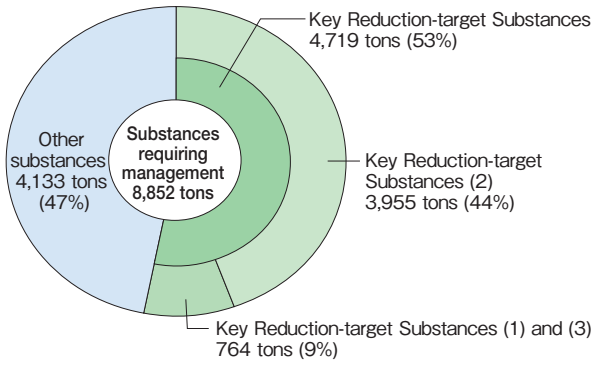
(1) Ten groups of substances recording the highest levels of release/transfer in the Pollutant Release and Transfer Register survey (Japan, fiscal 2003) Ten groups of substances recording the highest levels of release/transfer in the chemical substance survey (fiscal 2005) by Panasonic and its group subsidiaries
(2) Twenty VOCs recording the highest levels of release in the survey by the electrical and electronics industry
(3) Five groups of substances specified by the Law Concerning the Promotion of the Measures to Cope with Global Warming

■ Breakdown of release/transfer of Key Reduction-target Substances



* The figures are different from those in the previous report, because problems when collecting data have been addressed and thus the accuracy of the figures in and after the base fiscal year has been improved.

■ Breakdown of release/transfer of substances requiring management



Case Reduction of VOC usage through improvements to motors

Panasonic Ecology Systems (Thailand) Co., Ltd. manufactures finished products, such as electric fans, exhaust fans, and air blowers, as well as motors for such products. In a motor production process, varnish containing volatile organic solvents was used to insulate and fix the coils. However, changing from an insertion method to series winding method has successfully eliminated the varnishing process, resulting in a reduction in atmospheric release of volatile organic compounds (VOCs) by approximately 3.8 tons annually. At the same time, the company reduced its annual CO_2 emissions by about 40 tons, and is aiming to completely abandon the varnishing process in the future

■ Breakdown of release/transfer of Key Reduction-target Substances
(2) (VOCs)

(Units: tons)

Chemical Substances	Release/transfer		
	Fiscal 2006	Fiscal 2007	Fiscal 2008
Isopropyl alcohol	1,326.7	1,263.6	1,213.9
Methyl ethyl ketone	612.1	525.2	483.2
Toluene	406.0	336.0	304.3
n-Butyl acetate	395.1	313.6	310.1
Methanol	367.8	226.9	207.5
Ethanol	318.3	336.7	331.8
Acetone	307.9	319.3	275.0
Xylene	319.1	232.6	197.3
Propylene glycol monomethyl ether	150.8	152.1	181.0
Styrene	146.1	145.0	111.9
Ethyl acetate	102.3	72.7	71.4
n-Butanol	98.6	130.0	156.9
Methyl isobutyl ketone	81.4	68.4	58.3
Dichloromethane	33.8	8.4	0.7
Cyclohexanone	28.3	32.2	28.7
Ethyl benzene	19.2	23.2	19.5
n-Heptane	5.6	2.5	2.3
Tetrahydrofuran	2.3	1.5	1.2
Trichloroethylene	0.2	0.0	0.0
Chloroform	0.0	0.0	0.1
Total	4,721.7	4,189.8	3,955.1

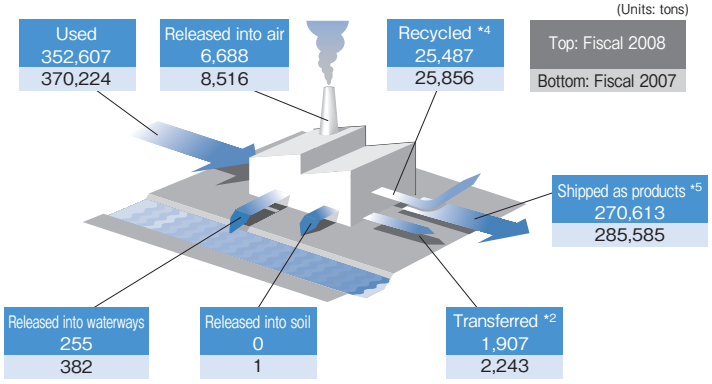
■ Results of surveys on substances requiring management, conducted by Panasonic and its group subsidiaries

(Units: tons)

Chemical substances	PRTR category	Handled	Total amounts released and transferred	Released				Transferred	Removed*	Recycled	Shipped as products
				Released into air	Released into public waterways	Released into soil	Landfill				
Carbon dioxide		2,086.7	2,086.7	2,086.6	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Isopropyl alcohol		2,694.0	1,213.9	1,049.9	2.0	0.0	0.0	161.9	176.4	1,194.8	108.9
Methyl ethyl ketone		5,279.7	483.2	399.4	0.0	0.0	0.0	83.8	4,210.0	266.1	320.4
Silica		10,368.8	408.7	17.0	9.7	0.0	0.0	382.0	1.7	180.6	9,777.8
Ethanol		498.6	331.8	310.2	5.4	0.0	0.0	16.2	43.5	97.7	25.6
n-Butyl acetate		789.1	310.1	295.2	0.0	0.0	0.0	14.9	239.6	208.7	30.6
Toluene	1	1,443.3	304.3	278.4	0.0	0.0	0.0	25.9	317.5	534.6	286.9
Acetone		967.1	275.0	227.7	0.0	0.0	0.0	47.2	185.8	468.3	38.0
Manganese and its compounds	1	37,241.5	219.0	3.1	0.1	0.0	0.0	215.8	1.1	372.0	36,649.4
N,N-Dimethylformamide	1	3,297.7	211.3	182.3	2.4	0.0	0.0	26.5	2,878.3	174.0	34.2
Methanol		7,734.9	207.5	180.9	0.0	0.0	0.0	26.6	2,292.7	318.9	4,915.8
Xylene	1	346.5	197.3	169.6	0.0	0.0	0.0	27.7	87.6	25.0	36.6
Propylene glycol monoethyl ether		2,003.8	181.0	151.4	0.0	0.0	0.0	29.6	1,458.6	345.2	19.0
n-Butanol		335.9	156.9	156.1	0.0	0.0	0.0	0.8	16.3	44.4	118.3
Isobutane		245.3	132.7	132.5	0.0	0.0	0.0	0.2	0.0	0.0	112.6
Butane		382.4	129.2	129.1	0.0	0.0	0.0	0.0	0.0	0.0	253.2
Styrene	1	6,631.6	111.9	96.4	0.0	0.0	0.0	12.7	315.3	64.6	6,140.3
Calcium hydrate		5,711.4	106.3	0.0	79.4	0.0	0.0	26.9	4,172.0	938.6	494.5
2-amino ethanol	1	103.5	99.4	1.5	13.9	0.0	0.0	84.0	1.5	2.3	0.4
Solid paraffin		1,612.2	97.6	2.7	0.0	0.0	0.0	94.8	0.7	12.7	1,501.3
Other PRTR substances		126,516.8	400.6	190.2	41.3	0.0	0.0	169.1	823.1	5,687.7	119,605.4
Other substance		136,315.8	1,188.1	627.1	100.4	0.0	0.0	460.6	30,432.9	14,551.0	90,143.8
Total		352,606.8	8,852.3	6,687.6	254.6	0.0	0.0	1,907.3	47,654.6	25,487.2	270,613.1

■ Material balance of substances requiring management *1

(Units: tons)



*1 'Substances' include those listed in the Matsushita Group Chemical Substances Management Rank Guidelines (Version 3.1) covering all substances listed in the Japanese PRTR Law.
*2 'Transferred' includes the amount of substances transferred as waste, as well as wastewater discharges into the sewage system. And includes free (under the Waste Management Law) and any obligatory return recycling under contract. (Transferred amounts differ from those reported under the PRTR Law.)
*3 'Removed' refers to the amount of substances converted into other substances through neutralization, decomposition, or other chemical treatment.
*4 'Recycled' includes paid recycling, as well as free and any obligatory return recycling under contract.
*5 'Shipped as products' refers to the amount of substances that have been changed to other substances as a result of chemical reactions, and those that are contained in or accompanying products shipped out of factories.

Reducing Waste from Factories

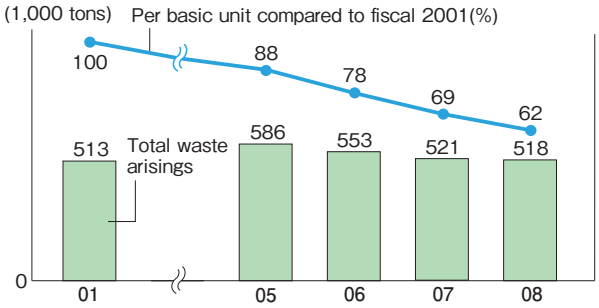
Concept/Future activities

Reducing absolute waste generation on a global basis

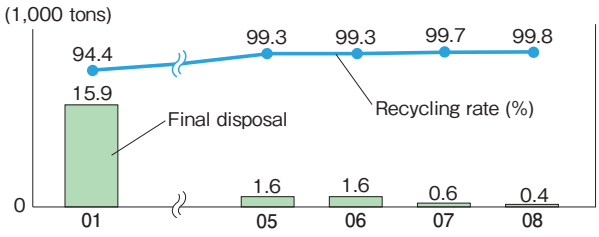
Panasonic’s efforts to achieve zero emissions center not only on recycling, but also on the reduction of the absolute amount of waste generated, including waste that is valuable or recyclable. We have set a target of reducing total waste arisings per unit of sales*1 by 20% by fiscal 2011 from 2001 levels. We aim to achieve zero waste emissions*2, as a part of our efforts to reduce the mass of final disposal to close to zero through recycling.

*1 Total waste arisings / (consolidated sales / Bank of Japan’s corporate goods price index (electrical machinery and equipment))
*2 Definition: A recycling rate of at least 99 %

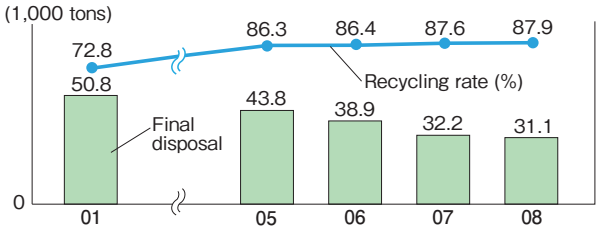
■ Total waste arisings (made up of revenue-generating waste and factory generated waste) and total waste arisings per basic unit



■ Mass of total waste arisings for final disposal and recycling rate (Japan)



■ Mass of total waste arisings for final disposal and recycling rate (Outside Japan)



Activity 1

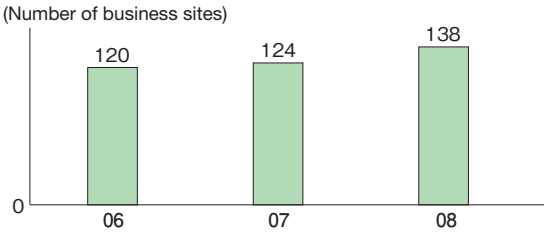
Setting a goal to minimize waste

The fiscal 2008 target for reducing the total waste arisings per unit of sales was a 14% reduction from the fiscal 2001 level, and we have achieved a 38% reduction. In absolute terms, total waste arisings are decreasing in Japan, while they are increasing in Asia, Oceania, China, and Northeast Asia because of production increases in those regions. Due to a decrease in CRT production, increased production efficiency, and the introduction of waste acid and alkali treatment technology, the total waste arisings decreased 2.2% in Japan, increased 0.8% outside Japan, and decreased 0.7% on a global basis, compared with fiscal 2007.

Furthermore, the recycling rate in Japan reached 99.8% and all 138 manufacturing sites* in Japan achieved zero waste emissions, while the rate stands at 87.9% on a global basis. We will reinforce our efforts to boost recycling rates to achieve at 95% at sites outside Japan.

* All sites under the domain

■ Changes in the number of business sites that achieved zero emissions (Japan)



Activity 2

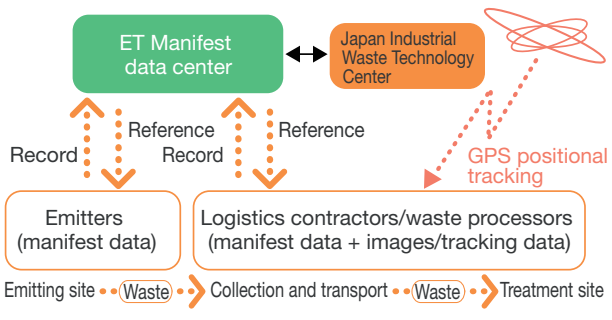
Waste management in compliance with laws

Panasonic has introduced ET Manifest, an IT-based waste management system, to handle the proper disposal of waste generated in the production process. This system traces and manages the waste generated at our sites by employing image and GPS data. In fiscal 2008, the following functions were added to enhance control:

1. Function to send out warnings about expiring licenses, contracts, and on-site verification;
2. Function to manage discharging sites centrally from the Group’s management headquarters;
3. Function to make tabulation tasks easier and to produce reports for submission to the government;
4. Function to manage disposal site verification schedules.

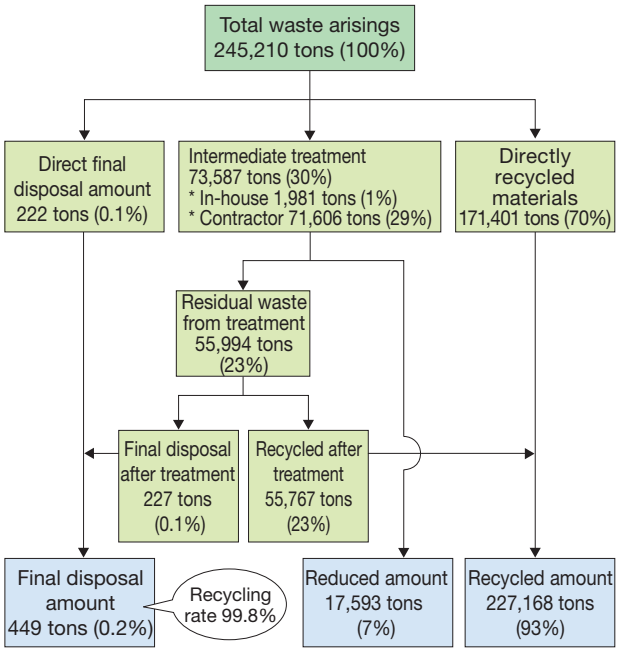
Since fiscal 2008, this system has been introduced not only in manufacturing sites, but also in non-manufacturing sites. Starting with the introduction in Tokyo Branch Office in April 2007, the system is also being introduced at Matsushita Technical Services Co., Ltd. and Matsushita Logistics Co., Ltd.

■ ET Manifest system for industrial wastes



* An organization that operates an industrial waste management ledger system using digital data, in compliance with the Waste Management Law

■ Treatment of total waste arisings (Japan)

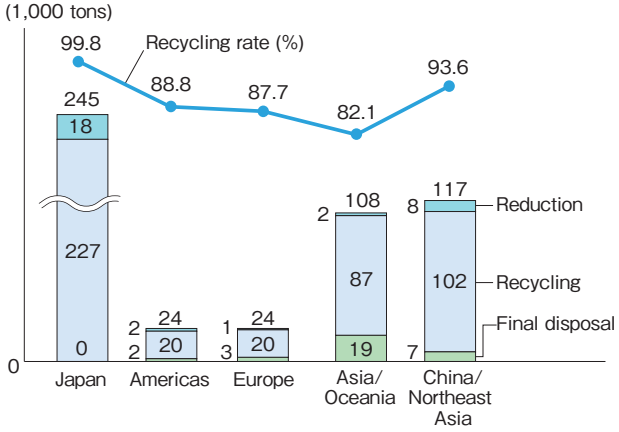


■ Breakdown of total waste arisings (Japan)

(tons)

Items	Amount of waste arisings	Amount of recycled resource	Amount of Final disposal
Metal	61,283	61,100	15
Acids	55,427	52,825	3
Plastics	34,550	28,584	134
Sludge	23,660	22,250	41
Paper	22,464	21,200	71
Wood	13,002	10,749	35
Alkalis	7,906	4,991	1
Glass/ceramics	11,145	10,966	101
Oil	10,785	9,776	18
Others	4,988	4,727	30
Total	245,210	227,168	449

■ Total waste arisings (by region)



■ Amount of in-house circulating resources

(tons)

Amount of in-house recycling*1	5,698
Amount of recycling after in-house intermediate treatment*1	916
Amount of in-house heat recovery*2	0

*1 Amount of internally reused resources
*2 Amount of internally heat-recovered resources

Effective Use of Water Resources

Concept/Activity

Setting goals based on regional characteristics

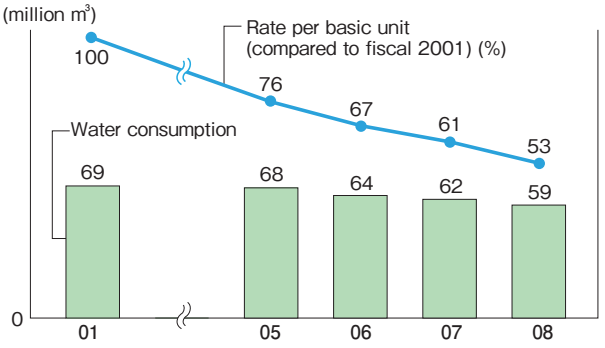
In response to serious water shortages in some parts of the world, Panasonic endeavors to reduce water consumption. Our target for fiscal 2008 was to reduce water consumption per unit of sales* by 7% from the fiscal 2001 level, and the result was a reduction of 47%.

Absolute water consumption outside Japan reduced 13.0% from fiscal 2007 due to consolidation of some manufacturing sites. In Japan, water consumption increased 0.9% from fiscal 2007 despite reduction measures, such as using water collection and recycling equipment. On a global basis, water consumption decreased 3.6% from fiscal 2007.

We encourage each business site to set its own targets, based on respective regional characteristics. For example, effective utilization of water resources is a mandatory requirement under the CF Accreditation System in China, where water shortage is a serious problem.

* Water consumption / (consolidated sales/Bank of Japan's corporate goods price index (electrical machinery and equipment))

■ Water consumption and rate per basic unit



■ Water consumption by region

(10,000 m³)

Region	Municipal water/ industrial water	Rivers/lakes	Groundwater	Total
Japan	1,237	19	2,960	4,216
Americas	102	0	12	114
Europe	18	0	45	63
Asia/Oceania	621	0	48	669
China/Northeast Asia	874	0	13	887
Total	2,852	19	3,078	5,949

Management of the Factory Environment

Concept/Activity

Setting stricter self-imposed criteria than those required by national laws and endeavoring to disclose information

Legal compliance is an essential requirement for all our activities. With this in mind, Panasonic is promoting strict compliance with relevant environmental regulations at our plants through regular measurement of gas emissions, water discharge, noise, odor levels, etc. In fiscal 2008, there were eight measurements in Japan, and one overseas that exceeded the standards stipulated in laws, ordinances, and agreements. In addition, individual factories have set voluntary standards that are even more stringent than the legally-required levels. If we ever fail to meet legal criteria, we immediately report it to the relevant authorities and take corrective and preventive measures.

■ Cases in which pollutant levels exceeded legal criteria

Region	Air	Water quality	Noise	Odor	Waste	Total
Japan	0	4	3	0	0	7
Outside Japan	0	2	0	0	0	2
Total	0	6	3	0	0	9

Case Environmental risk management seminars in China

In China, water and air pollution has become a serious problem and various regulations have been reinforced to address this. In response, Panasonic conducted voluntary environmental audits at all of its 60 manufacturing sites in China in August 2007 to help reduce pollution.

In November, an environmental compliance administrators conference was held, and we reaffirmed comprehensive implementation of environmental conservation measures. A two-day seminar was also held to strengthen environmental risk management. Explanations were provided to about 80 environmental officers from the 60 sites in China on how to deal with pollution and other environmental accidents promptly and to prevent their recurrence, by suggesting specific measures and discussing past experiences in environmental management in relation to pollution prevention.

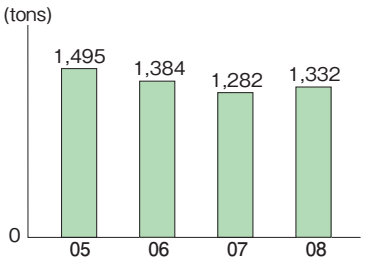
Through these activities, Panasonic aims to encourage its employees to understand the importance of environmental risk management and raise their environmental awareness, thereby reducing such risks and preventing accidents and pollution.

Environmental risk management seminar in China

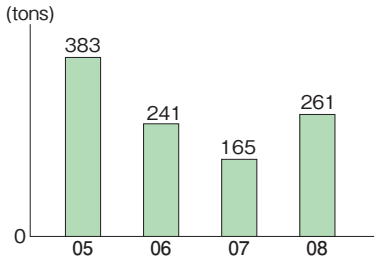
■ Impact on the air and public waterways (Japan)

＊ Aggregated data of business sites in countries that have regulations in place

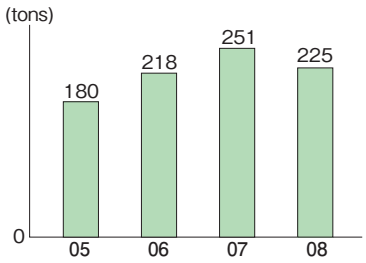
NOx emissions (air)



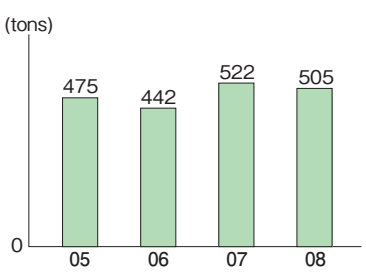
SOx emissions (air)



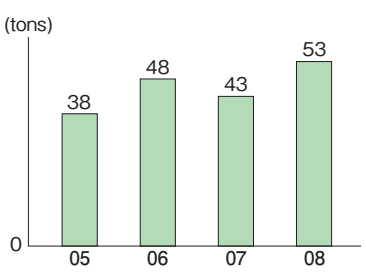
COD pollution (public waterways)



Nitrogen pollution (public waterways)



Phosphorus pollution (public waterways)



■ Impact on the air and public waterways (by region, in fiscal 2008)

＊ Aggregated data of business sites in countries that have regulations in place (tons)

Regions	NOx emissions	SOx emissions	COD pollution	Nitrogen pollution	Phosphorus pollution
Japan	1,332	261	225	505	53
Americas	4	0	0	0	0
Europe	31	0	6	2	0
Asia/Oceania	154	147	130	0	0
China/Northeast Asia	89	54	404	19	2
Total	1,610	461	766	526	55

Initiatives at Offices

Concept/Future activities

Initiatives for the environmentally-conscious offices

As a part of environmentally-conscious efforts by employees at our offices, efforts are being made to upgrade various types of infrastructure, resulting in contributions both to environmental preservation activities and to more efficient operations and cost reduction. We have introduced 48,000 IP phones over the past three years, which significantly cut down energy consumption through consolidating switchboards. IP phones will be introduced in all Matsushita Group sites in Japan during fiscal 2009. We have also introduced digital imaging systems that link to our information systems in order to reduce paper and energy consumption. Moreover, we have set a new target in fiscal 2009 for all non-manufacturing sites in Japan: to reduce annual average CO_2 emissions by at least 2% from the fiscal 2008 level. Efforts will be made not only at factories, but also at offices, to make a contribution to the prevention of global warming.

Activity 1

Introduction of energy conservation tuning

In general, CO_2 emissions from offices and other operational divisions in Japan have been on the increase. In view of this trend, we have reinforced our initiatives to reduce CO_2 emissions from non-manufacturing divisions, by incorporating the energy conservation tuning initiative.

Through this measure, we can operate air-conditioning and lighting facilities and systems in an energy-efficient manner according to changes in the utilization status of buildings in order to achieve maximum energy conservation.

Specifically, we have formulated a goal to reduce CO_2 emissions from non-manufacturing sites by at least 2% annually on average from fiscal 2008 levels and have established a specific policy for energy conservation activities at offices. We plan to designate model buildings to establish concrete practical methods and to apply such models to other sites for achieving our goal.

Activity 2

Encouraging Green Purchasing by revising in-house criteria

We believe that as an electronic products manufacturer and seller, it is our responsibility to lead activities towards the creation of a sustainable society. Therefore, we are encouraging our employees to purchase more environmentally-responsible office supplies and equipment, wherever possible.

In December 2001, we enacted the Rules for Green Purchasing, so as to further promote our Green Purchasing policy throughout our business sites in Japan. We have Green Purchasing criteria in place for office stationery, company vehicles, fixtures and fittings, and office automation equipment. Our purchasing database lists office stationery that meets our criteria, ensuring the staff can select environmentally-conscious items. We have also included educational content covering Green Purchasing in our employee e-learning system.

In fiscal 2008, we formulated the Green Purchasing Guidelines for Paper and Printed Matter. These guidelines provide a checklist of items necessary to produce environmentally-conscious printed matter, such as the raw materials for paper, use of easily recyclable materials, and use of hazardous substance-free ink. In particular, we have introduced a distinct idea that we use not only recycled paper, but also used pulp and virgin pulp from environmentally-conscious sources in a balanced manner. We believe that this initiative will allow us to deliver environmentally-conscious and safe printed matter to customers and to raise office staff's awareness of the environment.

In fiscal 2008, the green purchasing rate for stationery was 76%. The rate for copy and printing paper and office automation equipment was 100%, because only products that met green purchasing criteria were chosen for this category from the very beginning of the procurement process (for copy paper, this figure represents results up to December 31). In fiscal 2009, we will further tighten these criteria and encourage our employees to conform to the guidelines to ensure continuing improvement of the quality of the program.

■Green Purchasing results (Fiscal 2008 in Japan)

(million yen)

Category	Item	Amount in Green Purchasing items	Amount in non-Green Purchasing items	Total	Green Purchasing rate
Paper	Copy paper	102	0	102	100%
	Printing paper	1,693	0	1,693	100%
Office stationery	Notebooks, writing instruments, files, etc.	242	79	320	76%
Office automation equipment	Printers	45	0	45	100%
	PCs	2,440	0	2,440	100%

* Actual bulk purchases by the Company from April 2007 to March 2008.
* For paper, figures are the totals of actual purchasing from April to December 2007.

Initiatives for Clean Factories

Energy conservation

● 26,000-ton reduction in CO_2 emissions achieved through energy-supply system renovation

Tonami Factory, which produces semiconductors, continuously consumes energy for its 24-hour, 365-day operation. Therefore, from the beginning, the factory introduced an LPG-fueled cogeneration system to utilize energy efficiently and avoid sudden reductions in supply voltage and electric power failures caused by lightning strikes on production facilities. However, the equipment was wearing out and its efficiency substantially decreased due to continuous use over the years. In addition, the recent rises in energy prices necessitated that the factory overhaul its power supply system. In a major project, the factory developed and introduced new equipment to cope with sudden electrical power failure, as well as a high-efficiency inverter turbo chiller. By these measures the factory can now utilize energy very efficiently. As a result, the factory realized stable electric power supplies and achieved a 26,000 ton reduction in annual CO_2 emissions. The factory received the fiscal 2008 Director General Prize of Agency of Natural Resources and Energy at Awarding of Successful Case of Energy Conservation in Factory & Building

New equipment to cope with sudden electric power failure

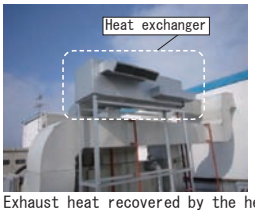
Inverter turbo chiller

Energy conservation

● 142-ton reduction in CO_2 emissions by utilizing exhaust heat

Tsuyama Factory of the Panasonic AVC Network Company, which produces DVDs and other recording discs, introduced a dry dehumidifier to supply air with a low humidity level to ensure stable quality of discs in manufacturing. High-temperature, high-humidity air (70–80°C) was released into the atmosphere during the operation cycle of the dehumidifier. However, with the installation of a heat exchanger, the heat released could be used to preheat regenerative air, resulting in a 34% reduction in electricity consumption for electric heaters and a 142-ton reduction in annual CO_2 emissions.

The factory received the fiscal 2008 Energy Conservation Center, Japan Chairman’s Award for these energy conservation activities.



Exhaust heat recovered by the heat exchanger

Energy conservation

● 90-ton reduction in CO_2 emissions through replacement of facilities and factory layout consolidation

At Saga Site of Panasonic Communications Co., Ltd., which produces scanners and network cameras, there were two substrate mounting lines. However, the site introduced a new mounting machine with double capacity and discontinued use of one line. In addition, the site reexamined the factory layout and consolidated the two buildings that had separately housed the manufacturing lines into one building. This substantially reduced energy consumption for lighting and air-conditioning, resulted in a 90-ton reduction in annual CO_2 emissions. For this project the site received the fiscal 2008 Director-General’s Award of Kyushu Bureau of Economy, Trade and Industry as an excellent energy management plant.

Before: manufacturing lines were running in the two buildings

After: one building is now used as a warehouse

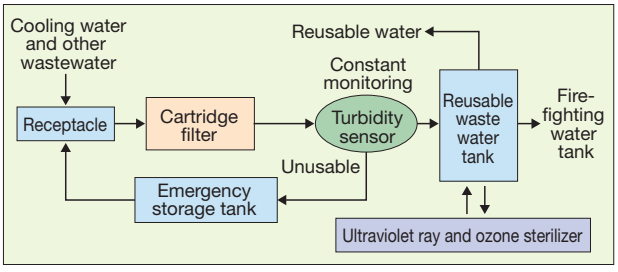
Reduction of water consumption through wastewater utilization

● Filtering test water for reuse in flushing toilets

At Kurume Factory of Matsushita Electric Works, Ltd., which produces built-in pumps and alkaline ionized purifiers, wastewater used for flow testing for pumps is first filtered with cartridge filters. The filtered wastewater is then monitored constantly with turbidity sensors and pH meters, sterilized with ultraviolet radiation and ozone, and reused for flushing toilets and fire-fighting water.

This activity brought about an annual reduction in water consumption of 2,000 tons.

■Overview of wastewater recycling



Management of chemical substances

● Substantial reduction of volatile organic solvents through facility renovation

Device Company Kumamoto of Panasonic Communications Co., Ltd. produces optical components for optical disc drives, such as optical pickups. Production has grown each year, and the estimated production for this year will be four times that of three years ago. In light of this, reducing cleansing solvents has become an issue. The company placed a reduction priority on the cleaning equipment that uses the most solvents, and upgraded such equipment to curb the atmospheric release of VOCs.

Jigs used in manufacturing processes and products themselves are regularly cleaned with specialist equipment. The factory replaced seven separate chillers that form part of the cleaning equipment with a centralized chiller to enable proper control of cooling temperatures. Software for controlling the opening of the cleaning tanks to limit release of solvents has also been upgraded. Further, an air intake was installed to control incoming air flow from the bottom of the cleaning equipment to minimize emission of solvents. These efforts brought about a reduction of annual solvent use from 25 tons to 20 tons.

Management of chemical substances

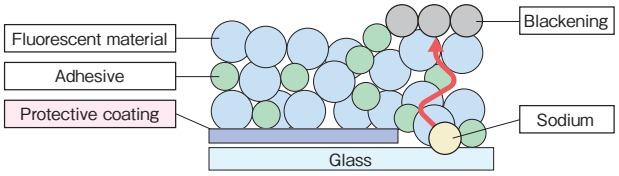
● Reduction of solvent use through product specification changes

The Lighting Company's Okayama Factory produces household fluorescent lamps and bulb-shaped fluorescent lamps, as well as fluorescent lamps for LCD backlights and white LED light sources.

Fluorescent lamps consist of glass, a protective coating, and fluorescent material. The protective coating has the effect of controlling the sodium which can separate out from the glass and reduce the brightness.

Most of the chemical substances used at the Okayama Factory are solvents contained in the protective coatings and fluorescent materials. Therefore, a switchover to water-soluble solvents for protective coats was necessary to reduce the use of VOCs. In order to use water-soluble protective coats, it is important to secure ample drying time. The factory successfully eliminated the solvents previously needed for the protective coatings by securing optimal conditions in the coating process. Thanks to these efforts, the introduction of water-soluble protective coats has enabled the factory to reduce its atmospheric release of 0.82 tons to zero, and at the same time, achieve an improvement in product performance.

■Basic structure of a fluorescent lamp



Reduction of waste

● Leaking oil reduced by thorough checking during maintenance

Panasonic Communications (Malaysia) Sdn. Bhd., which produces fax machines, undertook a thorough check on aging hoses and oil seals during maintenance of a hydraulic press to prevent oil leakage. Through this activity, the company has reduced its oil consumption by about 2 tons annually.

An employee checking for oil leakages

Reduction of waste

● Returnable containers used for transport to reduce waste

The Home Appliance and Automotive Motor Division of the Motor Company manufactures a variety of motors for home appliances. The company introduced returnable, folding mesh containers to transport the large motors for air-conditioners. This substantially reduced total waste arisings, such as wood pallets and cardboards that were generated in large amounts for packaging. In addition, some returnable containers used PE (polyester) resin foam as an internal material. After use, a significant amount of waste resin foam was generated. This volume has now been reduced and some of the waste resin foam has been sold as revenue-generating waste. These activities are implemented globally and have an effect of reducing total waste arisings by about 95 tons annually.

Polyester is broken up and reduced in volume

Green Logistics

Panasonic promotes green logistics to contribute to the prevention of global warming and the reduction of air pollution at the logistics stage, in addition to manufacturing environmentally-conscious products.

Green Logistics

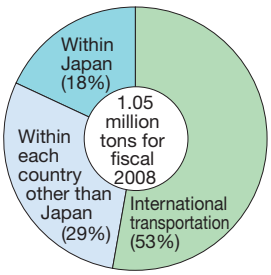
Concept/Future activities

Reducing CO_2 emissions in distribution

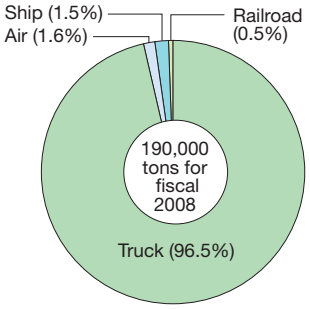
Panasonic’s Green Logistics aims at achieving CO_2 emissions reduction at logistics phase throughout the Group by a shift to more environmentally-conscious transport options, the introduction of eco trucks, strengthening alliances with logistics companies, the introduction of biodiesel, improvement of load factors, and a reduction in transportation distances. In fiscal 2008, we emitted 1.05 million tons of CO_2 from logistics activities on a global basis. Of these, international transportation accounted for 53% and domestic transportation 18%. Transportation by trucks accounted for 96.5% of total CO_2 emissions in Japan. In basic units,* CO_2 emissions were reduced by 4.9% from fiscal 2007. We have revised our target for the three years from fiscal 2009 to 2011 to reduce CO_2 emissions per basic unit every year by at least 1% on a global basis.

* CO_2 emissions/ weight of products (components) transported

■CO_2 emissions from transportation

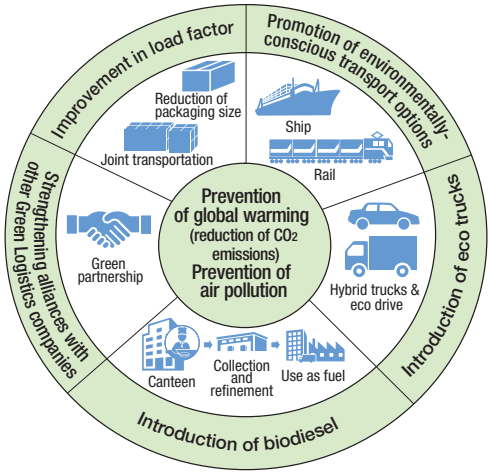


■CO_2 emissions from transportation (Japan)



*Calculation method has been changed since fiscal 2008 in Japan

■Major projects in Green Logistics



Compliance with laws and regulations

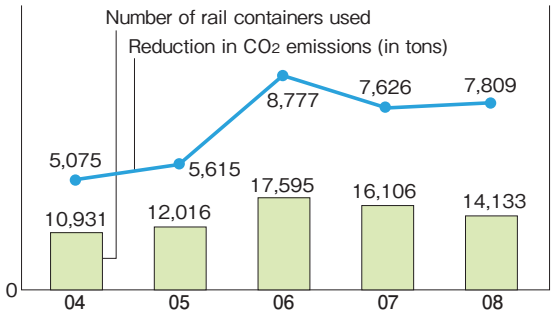
Activity 1

Promotion of environmentally-conscious transport options

Rail freight transportation in fiscal 2008 totaled 14,133 five-ton containers, a decrease from the level in fiscal 2007. This was mainly because the number of products suitable for railroad transportation decreased. The effect of railroad transportation in CO_2 emission reduction in fiscal 2008 was 7,809 tons.

We initially set the use of 30,000 railroad freight containers as a target for fiscal 2011. However, we intend to review this target and other priority activities in and after fiscal 2009, in line with our overall goal to reduce CO_2 emissions from logistics.

■Reduction in CO_2 emissions by railroad transportation (Japan)



● First modal shift case in precision equipment

Panasonic Mobile Communications Co., Ltd. endeavored to implement a modal shift in precision equipment, based on the Eco Rail Mark acquisition for its product last year. Previously, devices used in mobile phone base stations were transported by non-vibration vehicles (trucks). After improvements were made to the fixing method for the devices within containers and repeated vibration testing, the company became the first in the precision equipment industry to succeed in a shift to railroad transportation.

Rail freight container

* Eco Rail Mark established to recognize businesses and their products that approve the system and use the rail freight to contribute to the protection of global environment.

Activity 2

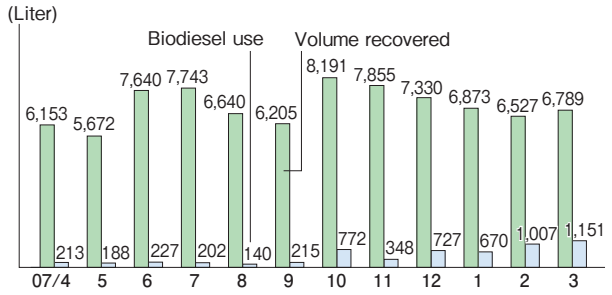
Promoting biodiesel usage

Panasonic is undertaking a program where waste cooking oil from a company canteen is refined and converted into biodiesel fuel,* which can then fuel vehicles used in production, procurement, and commuting. In Kusatsu, Shiga Prefecture, Japan, we implemented a project in fiscal 2008, in cooperation with the community, a bus operator, and the local government to use this biodiesel fuel in some commuter buses. This

initiative has also been introduced at two Panasonic sites that are currently implementing test drives of 100% biodiesel-fueled logistics trucks. We plan to gradually increase the number of such vehicles. Moreover, a separate trial has begun to run vehicles with composite fuel of gasoline and 3% bio-ethanol (E3) produced from construction waste.

* Fuel derived from biological materials.

■Changes in volume of recovered waste oil and biodiesel fuel use



Ceremony to launch a service using biodiesel-fueled buses

Activity 3

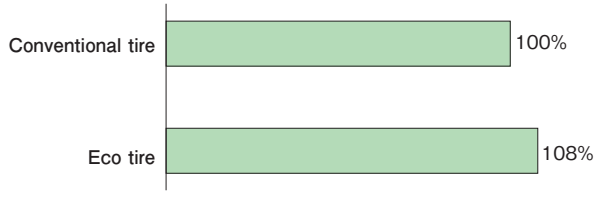
Strengthening alliances with Green Logistics companies

Based on feedback from 83 major logistics contractors*1 in fiscal 2007, we have promoted concrete activities to reduce CO_2 emissions. The campaign to encourage eco driving by means of digital tachometers*2 is one such activity. We also aim at fuel efficiency improvement through fitting eco tires that minimize rolling resistance, in cooperation with logistics companies and a manufacturer of eco tires.

In demonstration experiments using eco tires, fuel efficiency improved by up to 8%, compared with that for conventional tires.

*1: Top-ranking logistics contractors in terms of transaction value.
*2: A type of recording device that automatically records speeds and time on a memory card when driving the vehicle.

■Comparison of fuel costs by tire type*



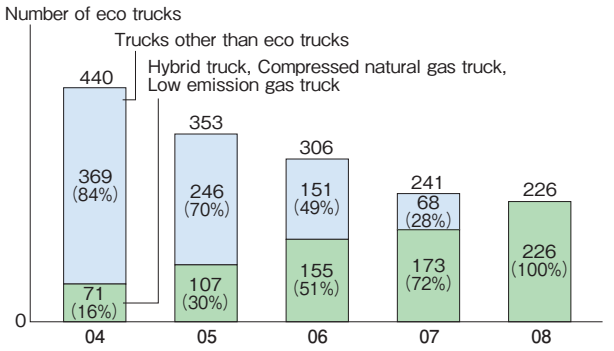
* Comparison by Panasonic

Activity 4

Promoting the introduction of eco trucks

We have been working on achieving introduction of eco trucks for all company trucks, but extended the initial target year by one year to March 2008 considering new types of hybrid trucks with superior environmental performance were introduced into the market. Matsushita Logistics Co., Ltd. started the introduction of small hybrid trucks in 2003 and completed the switchover of all small trucks owned by the company to hybrid trucks at the end of March 2008.

■Introduction of eco trucks (in Japan)



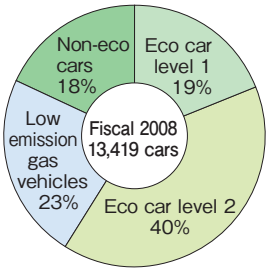
* From fiscal 2007, vehicles that will shortly be taken out of service have been excluded from the project.

Hybrid truck

●Promoting the introduction of eco cars

We have promoted the introduction of eco cars for use as company vehicles since fiscal 2003. In fiscal 2007, all company cars for officers were replaced with eco vehicles. We also raised the standards for company eco cars to the levels of official government cars. At the same time, we are replacing standard-sized vehicles with lighter cars to reduce CO_2 emissions by improving fuel efficiency.

■Our eco car introduction for company owned vehicles



* As of the end of March 2007, excluding trucks

■Our definition of eco cars

Level 1
● Electric powered vehicles ● Natural gas powered vehicles ● Methanol gas powered vehicles ● Hybrid vehicles ● Fuel cell powered vehicles ● Vehicles that achieve more than a 75% reduction against the standard gas emission levels for fiscal 2006 and a fuel efficiency of 5% higher than fiscal 2011 standard levels
Level 2
● Vehicles that achieve more than a75% reduction against the fiscal 2006 standard gas emission levels and 2011 standard fuel efficiency levels ● Vehicles that achieve more than 50% reduction against the standard gas emission levels for fiscal 2006 and fuel efficiency higher than fiscal 2011 levels

Product Recycling

Aiming at effective resource utilization, Panasonic commits itself to recycling waste electronic products and designing products that take recycling fully into account.

Fiscal 2008 Targets and Results

Basic targets

●Establish recycling systems for all home appliances by fiscal 2011

Result

- In Japan: Recycled approximately 72,000 tons of the four home appliance products.
- In the U.S.: Established a company to manage the recycling of waste electronic devices and started operations in Minnesota.
- In the EU: Collected approx. 23,000 tons of waste electronic devices*

* Estimated by the following calculation: Weight of collected products published by each country × share of sales in each country

Recycling Waste Electronic Products

Concept

Pursue environmentally and economically optimal system

With the objective of effectively utilizing natural resources and preventing environmental pollution, a growing number of laws concerning recycling have been enacted and come into effect in the various countries in the world. In Japan, the Law for Recycling of Specified Kinds of Home Appliances and the Law for the Promotion of Effective Utilization of Resources were enacted; the WEEE Directive in the EU and laws of this type in several states in the U.S. were enacted and took effect. Similar bills are also under deliberation in China. Panasonic believes it is necessary to comply with the recycling-related laws enacted in each country. To this end, we have to plan and build a system to collect and recycle waste electronic products in consideration of the presently available recycling infrastructures in each country. Such a system must be environmentally and economically optimal and should, of course, be feasible and sustainable.

Activity 1

Promoting efficient recycling of home appliances through effective use of the existing infrastructure

In 2001, the Japanese government enacted the Law for Recycling of Specified Kinds of Home Appliances, applicable to the four particular product categories. In response, Panasonic has built a geographically dispersed recycling network through the effective use of the existing recycling facilities nationwide. Ecology Net Co., Ltd., established mainly by Panasonic, totally manages and operates the recycling scheme, including 190 designated collection sites and 35 recycling facilities, on behalf of participating manufacturers in the same group which concluded contracts. In fiscal 2008 Matsushita Eco Technology Center Co., Ltd. (METEC) recycled approximately 670,000 units. Recycling technologies and the data obtained by METEC are shared by the recycling facilities of the Group.

In Europe, we established ENE Ecology Net Europe Gmbh (ENE) in Germany in April 2005 as a recycling management company. We are promoting recycling of covered electronic products under WEEE Directive through this company taking advantage of our experiences in Japan. In Minnesota in the United States, following the enforcement of the state recycling law in July 2007, Panasonic established Electronic Manufacturers Recycling Management Company, LLC (MRM) jointly with Toshiba Corp. and Sharp Corp. in September of the same year, and started the recycling of TVs, PCs, and other products. In the future, we will launch recycling operations also in other states where similar laws have already been enacted.

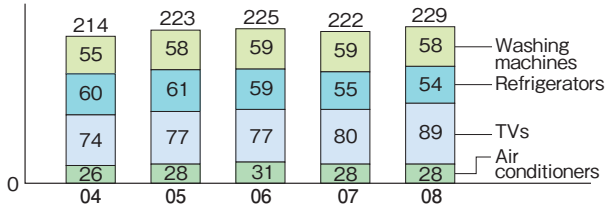
panasonic.net/eco/metec/

● Recycling of specified kinds of home appliances

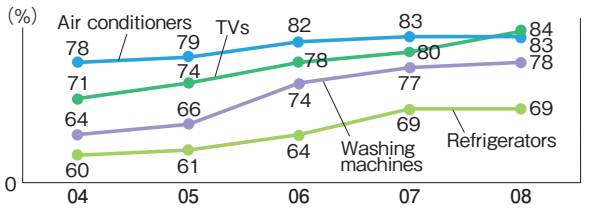
As a result of our recycling activities in fiscal 2008 (April 1, 2007 to March 31, 2008) based on the Law for Recycling of Specified Kinds of Home Appliances, 2.29 million of our products across four types of specified home appliances were recycled at our recycling facilities nationwide, an increase over 3% from fiscal 2007. The weight of recycled products was around 72,000 tons, an increase of 6% over fiscal 2007. The recycling rate rose by 2 points over the previous fiscal year, due to the increased plastic recovery rate.

■Number of products recycled (Japan)

(10,000 units, rounded to the nearest 10,000)

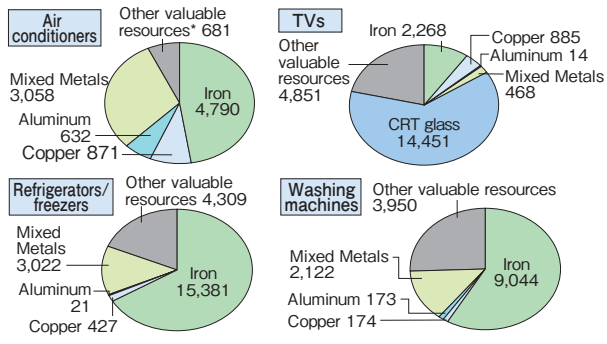


■Recycling rates of waste specified kinds of home appliances (Japan)



■Weight percentage of recycled materials by category (Japan)

(ton, the number of decimals truncated)



* Other Valuable resources means plastics etc

Activity 2

PC recycling

●Recycling Panasonic-made PCs in Japan

Panasonic has recycled waste Panasonic-made personal computers (PCs) in Japan through dedicated transportation and recycling companies. In fiscal 2008, the number of waste PCs collected was 7,479, with a recycling rate of 62%.

■PC recycling results (Japan)

Category	Business-use (units)	Home-use (units)	Recycling rate (%)
Desktop PCs	476	143	61
Notebook PCs	2,937	746	35
CRT displays	500	657	69
LCDs	1,891	129	62
Total	5,804	1,675	62

panasonic.biz/pc/recycle/

●Voluntary collection of waste notebook PCs in the United States and the EU

In the United States, we participated in the PlanITROI Program, which is a consumer-friendly recycling service designed for information technology (IT) products in 2006. Under the program, we collected approximately 25,000 end-of-use notebook PCs. Collected PCs are refurbished and resold or their component parts are reused after the necessary recycling processes. PCs that cannot be resold or reused as parts are disposed of appropriately by certified recyclers. We also launched a voluntary collection program in the EU in 2007.

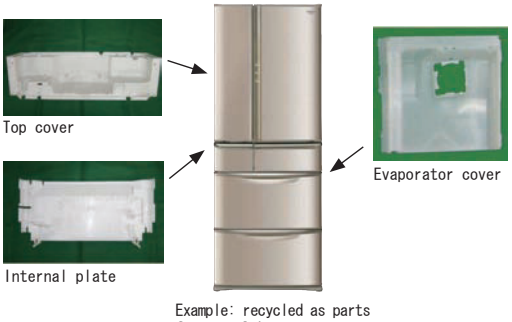
www.planitroi.com/web/panasonicnew.cfm (English)

www.toughbook.eu/ENG/RecyclingWEEE.aspx (English)

Activity 3

Technology to recycle plastics without pelletizing

To recycle plastics, it is generally necessary to melt and pelletize them to remove foreign matter. However, we have established a means of recycling plastics without pelletizing by using our unique foreign matter removal technology. We can now recycle plastics without heating and melting them, which reduces CO_2 emissions from the recycling process by approximately 50%, compared with recycling plastics by pelletizing.

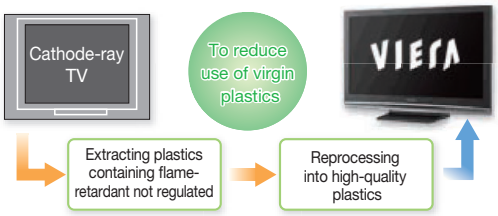


Example: recycled as parts for a refrigerator

Activity 4

Reusing plastics recovered from waste cathode-ray TVs

We started to reuse plastics from waste cathode-ray TVs as materials for new TVs by extracting only those containing flame retardants which are not regulated by laws from waste TVs. We have reprocessed these plastics to reuse them in our VIERA flat-screen TVs to be released in the Japanese market in 2008. We will expand such reuse on a global scale in the future.



Activity 5

Developing the technology to decompose organic matter for recycling

Panasonic has developed the technology to decompose organic matter into harmless gas by catalytic reaction, which makes it possible to extract any inorganic matter contained therein. Through this technology, we can selectively recover the metal from plastic-coated wires and from resins containing metal materials. This process is carried out by the use of heat generated from the catalytic reaction with only a small amount of energy needing to be supplied. At present, we are collecting copper wires from demagnetizing coils used in cathode-ray TVs. In the future, we will reduce the dust containing plastics to zero at METEC.

Thermal catalytic reaction decomposer operated at Matsushita Eco Technology Center (METEC)

Activity 6

Conducting dismantling tests to improve recyclability of products

At Panasonic, in order to achieve higher recycling rates* for its products, product designers themselves have been conducting dismantling tests since fiscal 2006. Specifically, they dismantle the products they have designed to identify problems to be faced when the products are recycled. With the data from METEC, the recycling-related technology and know-how obtained through these dismantling tests are incorporated into in-house design guidelines to be referred to by designers.

* According to the Law for Recycling of Specified Kinds of Home Appliances in Japan, the recycling rate is defined as follows: Recycling rate=weight of components (materials) that are separated from wasted home appliances and that can be transferred with/without charge/weight of products

Dismantling test conducted at METEC

Environment and Energy Business

Our environment and energy business is dedicated to supporting environmental initiatives at production plants by offering solutions that match the characteristics of specific operations.

Environmental system business

Panasonic announced the ‘eco ideas’ Strategy in October 2007 and made a commitment to reducing CO_2 emissions by 300,000 tons in absolute terms by fiscal 2010. The biggest challenge in achieving this target is to mitigate the environmental impact of manufacturing processes. We have established a business addressing this challenge—Environmental System Business—and are now developing it as one of our business domains.

Matsushita Ecology Systems Co., Ltd. is responsible for this domain and promotes the business in cooperation with Matsushita Environmental & Air-conditioning Engineering Co., Ltd. (MEA). Matsushita Ecology Systems develops and manufactures environmental equipment and devices, while MEA is responsible for the engineering aspects, such as design, installation, and maintenance. Their operations focus on the purification of water, air, and soil, which represent the primary sources of impact on the environment, and these businesses will contribute to achieving our 300,000-ton reduction target. In the near future, based on the know-how we have accumulated at our factories, we plan to apply our expertise to factories outside Panasonic and beyond Japan, especially to China, where CO_2 emissions are expected to continue to grow. Through this business, we are contributing to the reduction of industrial impact on the global environment.

panasonic.co.jp/mesc/products/

Activity 1

Waste water treatment business

We are pursuing the protection of water resources by developing water-circulation reusing system at production sites, equipment for the use of rainwater and recycled waste water, and waste water treatment devices. We aim to contribute to proper utilization of water in various scenes such as in daily lives and at manufacturing sites.

●Waste water treatment technology at factories

Factories that manufacture semiconductors and flat panel displays use a great deal of pure water, ultrapure water, and various chemicals. Though they discharge sewage and waste chemicals, we can reduce both environmental impact and costs by reusing them as much as possible. More specifically, we have introduced a pure water recycling system that allows us to recover and reuse at least 88% of the pure water used in factories. We are now also operating a resist stripper recycling system capable of recovering 90% of the resist stripper used in the semiconductor manufacturing process, to reduce sewage and waste chemicals and to use water resources more efficiently.

In fiscal 2008, we succeeded in bringing into practical use a system to reduce industrial waste generated at food factories, by means of EcoSludge, which is a plant that reduces sludge by using a swim bed and ultrasonic waves. The plant generates less surplus sludge and requires less maintenance.

‘EcoSludge’ sludge reduction plant

Activity 2

Air purification business

We are working on the development of a system that facilitates the improvement of the air environment, by purifying volatile organic compounds (VOCs) released from production manufacturing sites and removing the suspended particulate matter (SPM) and nitrogen dioxide (NO_2) emitted from ventilation facilities in road tunnels.

●Delivery of denitrification system, first for road tunnel use

In large metropolitan areas, there have been concerns about the effect on neighboring areas of the SPM and NO_2 contained in the exhaust gases released from road tunnel ventilation facilities. We delivered a denitrification system for low-concentration NO_2, consisting of an electlic dust catcher and low-concentration denitrification equipment for the Yamate Tunnel on the Central Circular Route of the Shuto Expressway in japan, which was opened to traffic in December 2007. We thus became the first supplier in Japan to deliver a denitrification system for a road tunnel. This has mitigated any local effects on the neighboring areas from SPM and NO_2 released from the ventilation towers of the Yamate Tunnel.

●Purification of exhaust gases in large-scale painting process

A vast amount of VOCs are emitted at plants where large objects, such as cars, aircraft, and ships are painted. Purification of exhaust gases at these plants requires highly advanced technology because of the nature of the process, that is, where objects are painted in a large space. Having developed an ultra-large painting environmental system based on VOC removal techniques, MEA supplies large-scale clean painting plants. New VOC regulations were introduced with the revision of the Air Pollution Control Law in April 2006. The revised law requires that companies should manage emission control goals and accelerate their efforts to reduce all such emissions. We are contributing to the improvement of

Large-scale clean painting plant

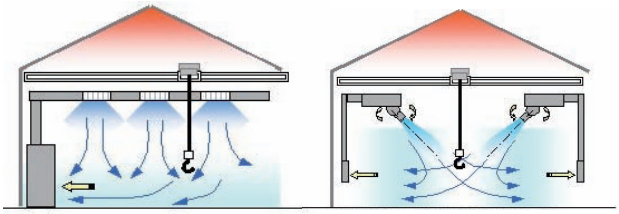
the air environment by providing total solutions based on these regulations.

●Variable Barrier Zone (VZ) system reduces impacts from factory air-conditioning, contributing to the reduction of CO_2 emissions

The VZ system is used for air-conditioning at factories and other large spaces. The system sends conditioned air only to where workers are active and lowers the sensed temperature by utilizing the wind-chill factor. In comparison with general air-conditioning, the VZ system can reduce initial costs and reduce CO_2 emissions by 30% during operation.

■Comparison of factory air-conditioning systems

【General air-conditioning】 【VZ system】



lain equipment: Air-conditioner and ducts
nstalled uniformly)
ir is conditioned even where unnecessary
→ Waste of energy

Main equipment: Air-conditioner and VZ nozzles
Air is conditioned only where necessary
→Energy conservation effect

Activity 3

Soil purification remediation business

We engage in integrated low-cost soil purification projects, including survey, purification, and verification of soil and groundwater polluted with chlorinated volatile organic compounds (CVOCs) and heavy metals at factory sites.

●Soil and groundwater purification utilizing bio-stimulation technology

Panasonic provides an advanced bio-remediation service that makes use of the microbes living in the soil in a method of recovering soil/groundwater contaminated by chlorinated volatile organic compounds (CVOCs). In this process, we put Amteclean, a nutrient salt made from palm oil, into the soil/groundwater. It activates the CVOC decomposition functions of the microbes living there. Although this new method requires a longer period than excavating the contaminated soil and replacing it with clean one, it has less effect on ecosystems and is more affordable.

It is essential that the decomposing bacteria are present in the soil/groundwater for the remediation process to work. Although conventional methods have been unable to identify the optimum type and amount of decomposing bacteria, Microarray Technology,* developed in 2005, enables us to determine the presence of suitable decomposing bacteria and identify 22 types of bacteria in a single test.

* Developed in collaboration with Gifu University and the National Institute of Advanced Industrial Science and Technology.

Activity 4

Energy business

Panasonic is promoting business to support the use of natural energy sources and high-efficiency energy utilization, to respond to the worsening global warming issue.

●NEDO project for verification of grid stabilization using a large-scale photovoltaic power generation system

Based on an agreement with Hokkaido Electric Power Co., Inc. and the city of Wakkanai in Japan, we were involved in a project by New Energy and Industrial Technology Development Organization (NEDO) for verification of grid stabilization for a large-scale power generation system and took charge of installing 1-MW PV panels. Building on our expertise in system technologies (solar cell module evaluation, solar cell system construction) in the PV business, we are striving for greater use of natural energy sources through the participation in this experimental study up to 2010.

Activity 5

Application of our energy solutions

●Planning energy conservation measures, using an energy conservation "Before-After" chart

We offer solutions to energy concerns by planning and implementing energy utilization schemes and facility renovation plans for CO_2 emission reduction. To this end, we have established a standard menu of know-how that we have accumulated from the operation of factories over the years, and based on that, actual energy consumption, facility conditions, and operating status can be diagnosed. In particular, to achieve effective energy conservation, air-conditioning, power usage, electricity, lighting, production, and new energy facilities must be analyzed from various standpoints based on the specific situation of a factory. Using the energy conservation BA chart, and our energy conservation manual, we suggest possible CO_2 emission reductions, the amount of money to be invested, and the depreciation period. Through the horizontal application of this methodology we can formulate feasible energy conservation measures. The initiative using the chart will be implemented not only in factories in Japan, but also in factories in China, which leads to achieve our target of CO_2 reduction by 300,000 tons by fiscal 2010.

Promotion of the LE Campaign

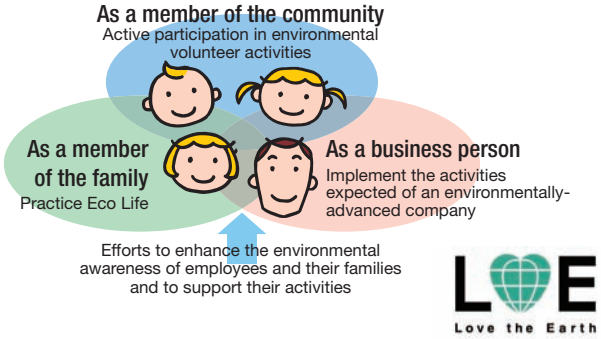
Concept/Future activities

Promoting Eco life by employees and their families

In order to encourage employees and their families to actively engage in environmental activities at home and in their local communities, in addition to their engagement in business operations, Panasonic has been promoting Love the Earth Citizen’s Campaign (LE Campaign) in Japan since 1998, thinking that only truly green-minded employees can manufacture truly green products.

panasonic.co.jp/eco/le/

■ Aims of Love the Earth Citizens’ Campaign



We independently set the Eight Action Programs for Eco Life* as our action guidelines for the LE Campaign. In line with these guidelines, employees and their families are encouraged to keep a Household eco-account book for their households, reduce the use of disposable plastic shopping bags by using their own eco bags, and participate in environmental volunteer activities. Those who have participated in these activities are certified as LE Families. In November 2007, we added ‘Eco Challenge: Select Energy Efficient Products’ to these activities to expand the definition of LE Families.

Ten years after the start of the LE Campaign, we are now gradually reaping the results, including greater employees participation in the activities. In order to identify the number of employee households participating in the Campaign more accurately, we revised the calculation method. According to the new method, approximately 49% of employee households in Japan participated in these activities. By fiscal 2011, we aim to increase this percentage to at least 80%. Also, in fiscal 2008 we launched the Campaign and promoted related activities in China. In the future, we will expand the LE Campaign on a global scale and encourage more employees to lead an eco life, mainly through the use of Household eco-account book, reduction in the use of disposable shopping bags, and participation in environmental volunteer activities.

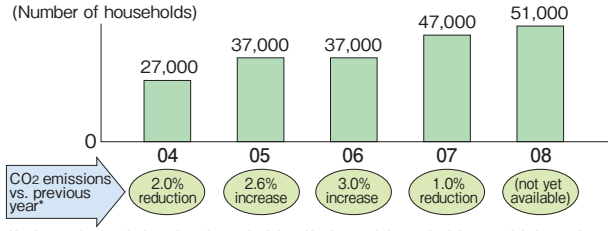
* (1) Energy conservation; (2) Use of eco bags; (3) Cooking for eco life; (4) Green purchasing; (5) Extended use of products; (6) Waste reduction/recycling; (7) Use of public transport/Eco driving; and (8) Environmental volunteer activities.

Activity 1

Household eco-account book initiative

This initiative encourages employees to record and reduce the amount of energy they use in their households, such as electricity and gas, and to help identify and reduce their CO_2 emissions using Panasonic’s unique Household eco-account book. By recording relevant data in the book, employees become more focused on the environment and are further motivated to reduce their CO_2 emissions and make their lifestyles more environmentally conscious.

■ Number of participating households of Household eco-account book



* Number of participating households: Number of households to which copies of the Household eco-account book were distributed

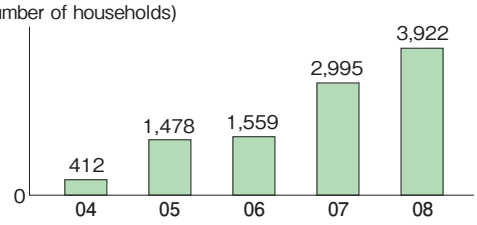
Activity 2

Plastic shopping bag reduction campaign

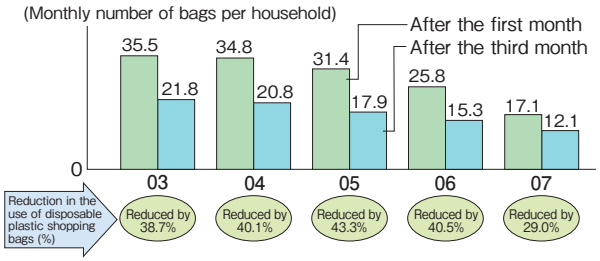
As part of our efforts to save resources and reduce waste, we are promoting this campaign to encourage employees to take their own bags (eco bags) when shopping, thereby reducing the use of disposable plastic shopping bags provided by stores.

In fiscal 2008, some 4,200 employee households participated in this campaign and 3,922 of them made a report on their use of disposable plastic shopping bags. The average number of these bags used per household has been decreasing since the launch of the campaign, due to increasing social interest in eco bags and to our in-house awareness-raising activities.

■ Number of households reporting on their use of disposable plastic shopping bags



■ Average number of disposable plastic shopping bags used per household



Activity 3

Environmental volunteer activities

We encourage employees to participate in tree planting activities, tree thinning activities, and local cleaning activities as part of our environmental impact reduction and environmental education activities. In fiscal 2008, approximately 14,000 employees participated in these volunteer activities, on a total of some 36,000 occasions.

■Frequency of participation in environmental volunteer activities by employees (total number for the fiscal year)

Matsushita Green Volunteer Club	Approx. 1,300 times	Thinning trees and cutting down undergrowth in forests	Approx. 5,800 times
Forest of Coexistence Program	Approx. 1,200 times	Cleaning activities outside the company premises	Approx. 27,000 times
Tree planting	Approx. 900	Total number for the fiscal year	Approx. 36,000 times

Activity 4

'Eco Challenge: Select Energy Efficient Products'

In November 2007, we started a campaign to encourage employees to choose product models in consideration of their energy conservation performance. We have been internally disclosing a list of energy-saving models of products* and have conducted relevant surveys twice a year to encourage employees to choose energy-saving models. In fiscal 2008, approximately 28,000 households purchased approximately 107,000 products, of which about 70% were energy-saving models.

* Targeted products: Room air conditioners, TVs, DVD recorders, freezers/refrigerators, jar rice cookers, microwave ovens, fluorescent lighting equipment, sanitary equipment, heat pump washer/dryers, natural refrigerant heat pump hot water suppliers, and ball-type fluorescent lamps.

Case LE Expert Accreditation System

We have been implementing a system for the accreditation of employees who continuously implement an eco life and encourage people to participate in environmental activities (LE Expert Accreditation System). In fiscal 2008, we encouraged employees to lead an eco life by holding seminars in which those accredited as LE Experts served as lecturers. In fiscal 2008, we newly accredited six employees as LE Experts and will further promote our LE Campaign with the help of these eco life experts.

■Outline of accreditation criteria for LE Experts
Employees who have obtained the required scores in the following items are accredited as LE Experts.

Mandatory requirements	Continuing one of the environment activities for at least three years	
	Participating in at least one of the priority LE Campaign	
Continuity	Continuing environment activities for at least three years (nine years)	
Activities	Household eco-account book	Reducing CO_2 emissions by approx. 5% on an annual basis (to approx. 70% or less of average emissions from a household with the same number of people)
	Environmental volunteer activities	Participating in the activities five or more times per year (10 or more times per year)
	Other activities targeted in the Eight Action Programs for eco Life	
Influence on others	Encouraging people other than family members to lead an eco life (actively planning and conducting environmental activities)	
Extra items (given additional scores)	• Implementing measures to promote LE Campaign more widely across the company • Having experience as lecturers • Building a network for promoting the activities , etc.	

* Employees who have voluntarily met the extended criteria shown in parentheses are given extra scores.

Activity 5

LE Campaign in China

In fiscal 2008, as part of our China Eco-Project, we started to encourage employees in China to lead environment-conscious lives and contribute to the local environment. First, we added items unique to China* to the Eight Action Programs for Eco Life to make the Ten Action Programs for Eco Life and implemented measures to make all employees aware of these new items. Subsequently, in July 2007, we asked employees to make a Declaration of Eco Activities to show their commitment to the environment, and a total of 67,336 employees from 74 companies signed it. As common activities to be conducted across the companies, employees are encouraged to keep a Household eco-account book, replace lamps with fluorescent bulbs, not to drive their cars on the 22nd of every month and, for those that smoke—refrain from smoking on the last day of every month. In the future, we will set monthly activity themes for employees so that they can increase their environmental awareness and make contributions to the local environment through education and actual activities.

* Energy and resource conservation including water saving at workplace, and compliance with public rules on manners

The Declaration of Eco Activities signing campaign at Panasonic Home Appliances (Hangzhou) (Export Processing Zone) Co., Ltd.

The Declaration of Eco Activities signing campaign at Panasonic Communications (Dalian) Co., Ltd.

Case The Japanese-Chinese Joint 'CO_2 Reduction Eco Challenge by 100,000 Employees!'

In fiscal 2008, celebrating the 10th anniversary of our LE Campaign, we implemented the Japanese-Chinese Joint 'CO_2 Reduction Eco Challenge by 100,000 Employees!' in July, and asked employees to conduct daily energy-saving activities for a week. As a result, 130,000 employees, exceeding the target of 100,000, participated in the Eco Challenge. It is estimated that CO_2 emissions were reduced by approximately 180 tons through the Eco Challenge, which is equivalent to the annual amount of CO_2 absorbed by some 13,000 cedar trees.* According to the results of a survey conducted in Japan targeting the participants of the Eco Challenge, about 70% answered, "I want to continue my energy conservation activities."

* Source: Measures of Green Sink for Global Warming Prevention, issued by the Forestry Agency and the Ministry of the Environment of Japan.

■Outline of the Japanese-Chinese Joint 'CO_2 Reduction Eco Challenge by 100,000 Employees!'

	China	Japan
Number of participants	67,336	62,664
Estimated reduction in CO_2 emissions	Approx. 112 tons (*)	Approx. 68 tons (Including 49 tons estimated from regular activities)
Action taken for CO_2 emission reduction	• Mains power off for home appliances • Room temperature setting 26℃ or higher. • Lighting off in any room without people. (These items are mandatory)	• Mains power off for home appliances • Shopping using an Eco-bag • No commuting by car (Free selection from the total of 8 items)
Survey method	Employees who made a commitment prior to the registration deadline regarded as participants and the CO_2 reduction effect calculated from the questionnaire administered to 476 people after the Eco Challenge	The number of participants and the Eco Challenge effects estimated based on the results of a post-campaign questionnaire survey conducted on those applying for the survey as participants of the Eco Challenge
Eco Challenge Period	One week in July 2007	From July 9 to 15, 2007

* The CO_2 emission coefficient used for electricity in China is 1.9 times that used in Japan

Biodiversity Protection

Concept/Future activities

Promotion of the Yellow Sea Ecoregion Support Project

In September 2007, Panasonic agreed with WWF(World Wide Fund for Nature), the global conservation organization, to jointly promote the Yellow Sea Ecoregion Support Project to conserve the marine ecosystem of the Yellow Sea.
The Yellow Sea has one of the world’s largest continental shelves, and apart from its rich fishing grounds, it also provides a habitat for a variety of wildlife. The project is scheduled to last seven years to achieve the required level of conservation and to secure effective management of the area. Panasonic is involved in the project as a Corporate Supporter under WWF’s international corporate partnership scheme and is dedicated to establish the foundation for a richer marine ecosystem and a good life for the people along the coasts, by contributing 170 million yen over seven years. In the Project, WWF Japan will give technical support to overall nature conservation activities, while WWF China and the Korean Ocean Research and Development Institute (KORDI) will serve as country coordinators of the project in China and South Korea, respectively. The recipients of the project’s small grant scheme for the initial year (five groups from China and three from South Korea), were selected in December 2007 and have already launched their public awareness activities. Panasonic is pleased to contribute to the conservation of biodiversity in this first collaborative environmental project between China, Korea, and Japan,.

Joint declaration signing ceremony held in China
Chairman Hayashi of Panasonic China; Managing Executive Officer Kajisha of Panasonic; Mr. Chris Hails, WWF International; Mr. Takamasa Higuchi, WWF Japan; Ms. Li Lin, WWF China; Mr. Woong-Seo Kim, KORDI (left to right)

Activity

Sustainable use and effective management of the Potential Priority Areas

In July 2002, WWF, KORDI, and the Korean Environment Institute (KEI) started activities to scientifically understand and assess the marine ecosystems and globally significant habitats in the Yellow Sea Ecoregion. Subsequently, in December 2006 these organizations announced the results in the form of a map showing Potential Priority Areas, which represent the areas that need to be given priority to ensure effective conservation of biodiversity and the ecosystems.

Panasonic is committed to making contributions to the conservation and effective management of the Potential Priority Areas shown in the map and to encouraging more people to take an interest in this project.

●Structure of the Yellow Sea Ecoregion Support Project

・1st stage: August 2007 – March 2010

Giving financial support to local communities so that they can take the initiative themselves in conducting activities to raise public awareness about this issue; and providing local staff engaging in the project with an opportunity to exchange experience and information.

・2nd stage: January 2010 – March 2013

Setting up demonstration sites in both China and South Korea, and implementing local environmental conservation measures in collaboration with local communities, while managing the local habitats according to international standards.

・3rd stage: April 2013 – September 2014

Summarizing the conservation cases/successful results obtained from the first and second stages in a report, communicating it as a successful Asian model of coexistence between marine ecosystems and human beings to the world including China and South Korea, and urging more regions to implement similar measures.

We are promoting the WWF project

Tobai Sadayoshi
Marine Program Leader,
Nature Conservation Division,
WWF Japan

The Yellow Sea Ecoregion Support Project is an international project to help conserve biodiversity across China, South Korea and Japan, aiming at a healthier future for Asian seas. This is the first case where we receive support from a Japanese company for as long as seven years. It will become a model case for new biodiversity conservation activities to be implemented beyond national boundaries through cooperation among various stakeholders, including local communities. This project can be called a 21st century “Asian challenge,” attempting to realize sustainable development in harmony with nature.

Wang Songlin
Marine Program Officer,
WWF China

The Yellow Sea Ecoregion has one of the world’s largest continental shelves and provides habitats for approximately 280 species of fish, 500 species of invertebrate, and 17 species of whales and dolphins. And its coastal wetlands serve as indispensable stopover sites and wintering grounds for over 1 million migratory waterbirds. Furthermore, for centuries, seafood from this sea and the local scenery has enriched the lives of people living in the coastal areas and inland areas, both physically and mentally. However, this global treasure is also one of the world’s most heavily disturbed ecoregions of its kind, with human-caused threats including habitat loss, overfishing, and pollution. In the face of such tremendous environmental challenges, we strongly hope that this seven year project will help enhance the system to manage the important habitats, promote environmental conservation by local inhabitants, and contribute to creating harmony between human and nature in and around the Yellow Sea.

The Forest of Coexistence Program

Concept/Activity

Planting trees at Panasonic's business sites

Under the Forest of Coexistence Program, we are promoting tree planting at our business sites while increasing the environmental awareness of employees working there. We started this activity in fiscal 2004 and in the five years since then we have planted some 27,000 trees over a total land area of approximately 25,000 m^2 at our 23 business sites. Some of these sites have created unique forests, including a forest surrounding a unique eco-system and a rooftop forest.

■ Business sites participating in the activity in fiscal 2008

Panasonic Automotive Systems Company (Ikebe, Yokohama)
Matsushita Eco Technology Center Co., Ltd.(Kato, Hyogo)
Matsushita Home Appliances Company (Koriyama, Nara)
Obihiro Matsushita Electric Works, Ltd.

Panasonic Factory Solutions Co., Ltd. (Tosu, Saga): Rooftop forest

Matsushita Eco Technology Center Co., Ltd. (Kato, Hyogo): Forest of trees planted by employees

Support to NPOs

Concept/Activity

Providing support to NPOs tackling environmental and children's issues

Panasonic has been managing the Panasonic NPO Supporting Fund to assist NPOs engaged in environmental issues or in supporting the sound growth of children. Our support has been focused on strengthening their organizational bases so that they can put their inherent power to best use and carry out sustainable activities. We also provide them with consulting and other assistance to support them in a comprehensive manner. In fiscal 2008, a total of 378 NPOs applied for our support from all over Japan and we donated 29.77 million yen to a total of 25 NPOs (12 organizations engaged in environmental issues and 13 organizations working for the welfare of children).

panasonic.co.jp/cca/pnsf/

Donation ceremony held by the Panasonic NPO Supporting Fund in fiscal 2008

The Matsushita Green Volunteer Club

Concept/Activity

Conducting environmental volunteer activities in collaboration with local communities

In November 1993, Panasonic established the Matsushita Green Volunteer Club (MGV), aiming to encourage everyone to take more interest in global environmental problems and participate in forest preservation and planting activities. Under the slogan "Actions speak louder than words, so let's start with small actions," the MGV is pushing ahead with its activities, joined by Panasonic's retired employees and people from the community. Club members are also participating in events held by local citizens' groups.

■ MGV's major activities (fiscal 2008)

Activities		Achievements
Forest preservation	Cutting down undergrowth in forests, thinning, and planting tress, and taking care of forests and bamboo groves	A total of 36 activities at 22 locations across Japan
Cleanup	Cleaning up parks, beaches, and riverbeds, and planting new flowerbeds	A total of 30 activities at 20 locations across Japan
Nature observation and making handicrafts	Providing venues for nature observation in each season and for contact with nature by making handicrafts from natural materials	A total of 10 activities at 6 locations across Japan
Cherry blossom viewing	Providing opportunities to make fixed-point observations of registered cherry trees blooming patterns and seasonal changes	Of 252 cherry trees registered for the Cherry Blossom Viewing 2007, 80 were reported to have blossomed.

Case Joint LE and MGV activities in Hitorizawa Community Woods

Every autumn since 2001, employees participating in the LE activities and those participating in the MGV activities have been jointly conducting forest preservation activities as volunteers in the Hitorizawa Community Woods, located in the city of Yokohama. Since fiscal 2006, the volunteers have also been cutting down the weeds in summer. In November 2007, our tenth joint activity was conducted. A total of 1,442 people participated in the joint activities conducted in the past. Our activities comprise three parts: weed cutting and cleaning; nature observation/woodwork/learning about growing trees; and planting cherry trees and sawtooth oaks, and trimming the plum trees. This activity is supported by the city of Yokohama, local forest volunteer groups, and the owners of the woodland.

Tenth LE & MGV joint activity conducted in Hitorizawa Community Woods

Sharing Environmental Information

Concept/Future activities

Stakeholder feedback for environmental sustainability management

To promote environmental sustainability management, it is important to inform stakeholders both inside and outside of the company of our environmental activities in an easy-to-understand manner, and to facilitate two-way communications with them. Panasonic is eager to incorporate feedback from its stakeholders in our environmental activities. We disseminate and share information and exchange opinions to promote communication with our stakeholders, through environmental labeling, the Environmental Data Book, public relations activities, and participation in exhibitions.

In April 2007, we introduced a new Panasonic’s Environmental Mark, ‘eco ideas’ which serves as a symbol to represent our commitment to environmental activities. The ‘eco ideas’ mark will be used globally for environmental labels, eco-badges for employees, and public relations activities to communicate our sincere determination in this area.

Panasonic’s Environmental Mark ‘eco ideas’

■ Environmental communication results (handled by the head office of Matsushita Electric Industrial Co., Ltd. in fiscal 2008)

Media/activities	Results	Media/activities	Results
The Panasonic Report for Sustainability (in Japanese)	20,000 copies	TV commercials	10
The Panasonic Report for Sustainability (in English)	7,000 copies	Newspaper ads	22
The Panasonic Report for Sustainability (in Chinese)	6,000 copies	Exhibitions	12
Environmental Data Book (in Japanese)	13,000 copies	Lecture meetings	10
Environmental Data Book (in English)	5,000 copies	Books, papers, lectures	12
Environmental Data Book (in Chinese)	5,000 copies	Interviews with reporters	21
Website (in Japanese)	Approx. 1.87 million page views	News release	13
Website (in English)	Approx. 280,000 page views	Responses to surveys/ questionnaires	29
Stakeholder dialogue	2	Inquiries/information requests	1,157

Environmental Data Book

Activity 1

Disclosure of environmental information by booklets and on the website

Since we issued the first environmental report in 1997, we have continued to disclose information through our booklets. In 2005, we began issuing the Panasonic Report for Sustainability to report our social activities based on the concept of corporate social responsibility (CSR). However, the Report focused more on our social performance, and an amount of information disclosed on our environmental performance was somewhat less than before. To remedy this, we started issuing the Environmental Data Book to supplement information of the environmental aspect of our activities. We believe that disclosure through the Environmental Data Book plays an important role in the check phase within the PDCA cycle and serves as a driving force for our future activities. We regard the report as a tool to overview our environmental sustainability management over the past year.

In order that more people can gain an understanding of our environmental activities, we also publish group-wide activities and site-specific environmental reports on our website.

panasonic.net/eco/

Activity 2

Public relations activities and participation in exhibitions

Panasonic is promoting global public relations activities and participating in international exhibitions in the hope of offering more people the opportunity to understand our environmental activities and for us to gain feedback from as many stakeholders as possible to drive forward our environmental sustainability management.

On October 5, 2007, President Fumio Otsubo announced Panasonic’s ‘eco ideas’ Strategy at a press conference held at Panasonic Center Tokyo. The press conference attracted 150 journalists both from Japan and overseas and received a high degree of media coverage. During fiscal 2008, Panasonic participated in 12 exhibitions held inside and outside Japan. At Eco-Products 2007, approximately 20,000 people visited our booth where we could introduce our environmental activities and environmentally-conscious products. We continue to promote two-way communications with all our stakeholders.

Press conference on the ‘eco ideas’ Strategy

Eco-Products International Fair (Vietnam)

Activity 3

Organizing the environmental exhibition 'eco ideas' World

To communicate our three 'eco ideas' initiatives to more customers and to introduce our environmental activities to gain their understanding of the importance of environmental preservation, we have organized environmental exhibitions at seven venues in Japan since April 2008. At the exhibition venues, a 9-meter diameter 'eco ideas' World georama is installed to represent an ideal ecology town built based on our three 'eco ideas' concepts. Our major green products are on display and the environmental activities being conducted by manufacturing sites near each venue are presented.

'eco ideas' World schedule

Tokyo (Tokyo Midtown): Tuesday, April 8 to Monday, April 13
Osaka (in front of Umeda BIGMAN): Tuesday, April 15 to Monday, April 21
Osaka (Kyobashi OBP): Friday, April 25 to Tuesday, May 6
Fukuoka (Lion Hiroba, Solaria Plaza): Friday, May 9 to Thursday, May 15
Nagoya (Sakae Lachic): Friday, May 23 to Thursday, May 29
Sendai (JR Sendai Station): Friday, June 13 to Thursday, June 19
Hokkaido (Shin Chitose Airport): Saturday, June 28 to Sunday, July 13

In the georama, a model bus mounted with a tiny video camera is running. Visitors can enjoy an easy-to-understand introduction to the three 'eco ideas' initiatives, while enjoying a virtual bus tour of the 'eco ideas' World watching images from the camera and pre-recorded videos.

Activity 4

Holding stakeholder dialogues

We value stakeholders' comments made on our environmental activities, as they help promote our environmental sustainability management.

Since 2001, we have partnered with the international NGO, the Natural Step, seeking their opinions on our environmental sustainability management. In 2008, we received their opinions on our 'eco ideas' Strategy through a process of material review, dialogues among the Japan branch and U.K. head office of the Natural Step and Panasonic, analyses, and report preparation. We greatly value their opinions and reflect them in the formulation of action plans and the implementation of activities. We will continue active dialogues with various stakeholders to improve our environmental sustainability management.

P. 65

Dialogue with the Natural Step

Activity 5

Participation Involvement in the Team Minus 6% campaign

The Japanese government launched a national campaign, Team Minus 6%, in April 2005, aimed at achieving the goals set out under the Kyoto Protocol through the collective efforts of the nation. Panasonic was among the first to participate in this program as a team member.

To this end, Panasonic has been working mainly on observing preset air-conditioning temperatures, enforcing Cool biz*1 and Warm biz,*2 and conducting the Lights-out Campaign. We have continued our Lights-out Campaign since July 2005, in which neon advertising signboards and illuminated billboards at our business sites are switched off. The campaign has been conducted at 192 sites in Japan. As of March 31, 2008, the campaign achieved a total reduction in electricity consumption of approximately 3.78 million kWh. This also brought about a reduction in CO_2 emissions by 1,640 tons and saved 30.3 million yen in electricity costs.

*1 & 2: Refers to environment-friendly summer and winter clothing styles in offices, proposed by the Ministry of the Environment. Cool biz and Warm biz refer to clothes with which workers can work comfortably at air-conditioned temperatures of 28°C in summer and 20°C in winter, respectively.

Certified as an involved party by IPCC for the Nobel Peace Prize

The Intergovernmental Panel on Climate Change (IPCC) won the 2007 Nobel Prize for Peace "for their efforts to build up and disseminate greater knowledge about man-made climate change." Makoto Kaibara of Matsushita Home Appliances Company was certified as an involved party in winning the prize. He was involved, as a review editor,* in the preparation of the special report for which the Nobel Prize was awarded, titled 'Safeguarding the Ozone Layer and the Global Climate System: Issues Related to Hydrofluorocarbons and Perfluorocarbons.'

* A review editor attends editorial meetings along with the authors and has a responsibility to review the fairness of the descriptions presented in the report.

I am surprised that I was certified as an involved party for the prize and profoundly grateful to all the people and organizations concerned. I would like to continue to make a contribution to the prevention of global warming as an employee of Matsushita Electric Industrial and as a member of our planet.

(Reference) Outline of the Special Report 'Safeguarding the Ozone Layer and the Global Climate System: Issues Related to Hydrofluorocarbons and Perfluorocarbons'
HFCs' ozone depleting factor is zero, but HFCs have an effect on global warming. The report verifies the possibility of safeguarding the ozone layer and preventing global warming simultaneously by employing a comprehensive global warming index. It is suggested that using a refrigerant requiring less electricity consumption for air-conditioning equipment could contribute to the prevention of global warming.

Activity 6

‘eco ideas’ Contest

Panasonic conducted an ‘eco ideas’ Contest, involving the employees of all Group companies, from October to November 2007. The themes of the Contest were ‘products,’ ‘manufacturing,’ and ‘everybody, everywhere’ based on our ‘eco ideas’ declaration, plus my own ‘eco ideas.’ Approximately 20,500 ideas were submitted from 12,500 employees.

“Panasonic Eco Relay” proposed by an employee based in Germany was selected for the best prize. This idea envisions that clean-up and tree-planting activities will start in Japan, and then be relayed to other parts of the world and implemented globally. This activity will actually be implemented during fiscal 2009.

Poster announcing the result of the ‘eco ideas’ Contest

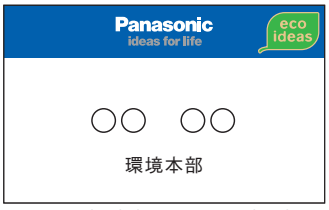
Activity 7

Raising employees’ awareness through ‘eco ideas’ mark

Since September 2007, all employees at Group companies in Japan, all Japanese employees transferred outside Japan, and employees in the position of general managers or above, who were locally employed have been wearing environmental badges on the design of ‘eco ideas’ mark.

This is not only to signify our commitment to environmental conservation, but also to encourage individual employees to implement global environmental conservation activities through their social lives, as well as in their business operations. The Environmental Mark has been used for business cards since October 2007 and for name tags for all employees since April 2008, to further raise their environmental awareness.

Environmental badge



Business card with the Environmental Mark

■ Participation in major exhibitions

Exhibitions	Venues	Opening period
China Beijing International Hi-Tech Expo	Beijing (China)	May 2007
INTEROP Tokyo	Tokyo	June 2007
IFA 2007	Berlin (Germany)	August 2007
GITEX 2007	Dubai (UAE)	September 2007
CEATEC JAPAN	Tokyo	October 2007
Inter BEE 2007	Tokyo	November 2007
Eco-Products 2007	Tokyo	December 2007
2008 International CES	Las Vegas (USA)	January 2008
Abu Dhabi Environmental Exhibition	Abu Dhabi (UAE)	January 2008
ENEX 2008	Tokyo	January 2008
4th Eco-Products International Fair	Hanoi (Vietnam)	March 2008
Security Show 2008	Tokyo	March 2008

■ On-site environmental communication results

	Japan	Americas	Europe	Asia/ Oceania	China/ Northeast Asia
Site tours (visitors)	61,713	499	671	3,113	5,011
Community contribution activities* (frequency)	780	13	28	21	56

* Environmental events involving our participation and cooperation, including briefings to local residents on our environmental activities and other such meetings.

■ Number of business sites disclosing information in reports, on websites, or through other media (by region)

Japan	Americas	Europe	Asia/ Oceania	China/ Northeast Asia
136	19	19	46	61

■ History of environmental report issuance

Year	Number of copies			Number of pages	Date of issuance
	Japanese	English	Chinese		
Environmental Report					
1997	17,000	8,000	—	24	February 1998
1998	10,000	10,000	—	28	March 1999
1999	18,000	5,000	—	40	September 1999
2000	22,000	5,000	—	56	September 2000
2001	20,000	5,000	—	66	September 2001
2002	25,000	5,000	—	78	June 2002
Environmental Sustainability Report					
2003	35,000	5,000	—	92	June 2003
2004	25,000	8,000	4,000	76	June 2004
The Panasonic Report for Sustainability					
2005	30,000	10,000	4,000	54	June 2005
2006	30,000	10,000	5,000	62	June 2006
2007	20,000	7,000	6,000	42	June 2007

■ History of Environmental Data Book issuance

Year	Number of copies			Number of pages	Date of issuance
	Japanese	English	Chinese		
2005	10,000	5,000	5,000	66	August 2005
2006	10,000	5,000	5,000	68	August 2006
2007	13,000	5,000	5,000	66	June 2007

■Major awards in the environmental field (fiscal 2008)

Category	Presenter and the awards	Specific prize	Recipient company and details
Environmental sustainability management	17th Grand Prize for the Global Environment Award, Fujisankei Communications Group	The Global Environment Meeting Outstanding Business Prize	Matsushita Electric Industrial Co., Ltd.
	9th Green Purchasing Award, Green Purchasing Network (GPN)	Grand prize (major company category)	Matsushita Electric Industrial Co., Ltd.
	Bio-Ecology Merit Awards, Manaos City, Brazil	Bio-ecology merit	Panasonic do Brasil Ltdo.
Products & Services	Asia Pacific Product Innovation Award, Frost & Sullivan		Matsushita Electric Industrial Co., Ltd. [Development of environmentally-conscious PDP display]
	CES Innovations 2008 Awards, Consumer Electronics Association	Eco Design Award	Panasonic Corporation of North AmericaPlasma TV (TH-PZ700)
	Minister of the Environment's commendation for global warming prevention activities, Ministry of the Environment, Japan	Technology development and commercialization category	Discrete Business Unit, Corporate Application Specific Standard Products Division, Semiconductor Company, Matsushita Electric Industrial Co., Ltd.[Development and commercialization of intelligent power devices (IPDs)]
	The Eco-Efficiency Award 2007, Japan Forum on Eco-efficiency	Special award	Dressing and Sanitary Ware Systems Division, Matsushita Electric Works Co., Ltd. "A-La-Uno" fully automatic self-cleaning toilet
	18th Energy Conservation Grand Prize for excellent energy conservation equipment, Ministry of Economy, Trade and Industry, Japan	Minister Prize of Economy, Trade and Industry	Home Appliances Group, Matsushita Electric Industrial Co., Ltd. Total of 5 models of personal hygiene system toilet"Beauty Toware,"including DL-GZ70
			Matsushita Electric Works, Co., Ltd. Fluorescent lighting fixture (Total of 24 models, including "W Eco" environmentally-conscious recessed mount type FX619CAWF9
		Chairman Prize of ECCJ (the Energy Conservation Center, Japan)	Matsushita Electric Works, Inc.Tankless toilet system "A-La-Uno" CH1001WS and CH1002WS
	Nikkei Awards for Superior Products and Services 2007, Nikkei Inc.	Highest award and a prize from Nikkei Inc.	Matsushita Electric Industrial Co., Ltd.Bulb-Shaped fluorescent lamp "Palook Ball Premier"
		Highest award and a prize from Nikkei MJ (Nikkei Ryutsu Shimbun)	Matsushita Electric Works, Inc.Tankless toilet system "A-La-Uno"
	FY2007 commendation for superior energy-saving machines, The Japan Machinery Federation	Prize from chairman of the Japan Machinery Federation	Panasonic Communications Graphics Co., Ltd.Thermal newspaper platemaker with new type line head (GX-9700)
	6th Japan Sustainable Management Awards, Japan Sustainable Management Awards Commendation Committee, Mie Prefecture	Environment project award	Matsushita Electric Works, Inc.Light and Trust Service
Prevention of global warming	FY2007 Awarding of Successful Case of Energy Conservation in Factory & Building, the Energy Conservation Center, Japan	Director General Prize of Agency of Natural Resources and Energy	Tonami Factory, Semiconductor Company, Matsushita Electric Industrial Co., Ltd.
		Prize from the head of the Bureau of Economy, Trade and Industry	Kadoma area, Panasonic Electronic Devices Co., Ltd.
		Chairman Prize of ECCJ (the Energy Conservation Center, Japan)	Tsuyama Plant, Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
	Awarding of Excellent Energy Conservation Factory & Building, Ministry of Economy, Trade and Industry	Director General Prize of Agency of Natural Resources and Energy	Yamagata Plant, Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
		Prize from the heads of the Bureaus of Economy, Trade and Industry	Kobe Plant, Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
			Uozu Plant, Semiconductor Company, Matsushita Electric Industrial Co., Ltd.
			Saga Plant, Panasonic Communications Co., Ltd.
			Matsuyama Site, Panasonic Shikoku Electronics Co., Ltd.
			ME Wakimachi Factory, Panasonic Communications Co., Ltd.
	ASEAN Energy Awards 2007, ASEAN Centre for Energy	Highest award for energy management	Panasonic Siew Sales (Thailand) Co., Ltd.
Management of chemical substances	PRTR Awards 2007, Center for Environmental Information Science	Prize for encouragement	Tsuyama Plant, Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
	Commendation for person of merit in volatile organic compound (VOC) measures, Ministry of the Environment	Commendation for outstanding VOC measures	National Building Materials Co., Ltd.
Environmental communication	42nd Japan Industrial Advertisement AwardsThe Nikkan Kogyo Shimbun, Ltd.	First prize, 2nd category	Matsushita Electric Industrial Co., Ltd.[Palook Ball (Tenjin festival)]
		First prize, 1st magazine category	Matsushita Electric Industrial Co., Ltd.[Vacuum insulation materials (penguins)]
	46th Business Advertisement Awards, FujiSankei Business i.	Gold prize for wide advertisement	Matsushita Electric Industrial Co., Ltd.[Wall greening]
		Gold prize for large-sized advertisement	Matsushita Electric Industrial Co., Ltd.[Palook Ball (a dam)]
		Gold prize for series advertisement	Matsushita Electric Industrial Co., Ltd.[(Water, air, and soil) purification series]
	34th Nikkei Sangyo Shimbun Advertising Award, Nikkei Inc.	Award for material and energy	Matsushita Electric Industrial Co., Ltd.[Biomass]
	11th Environmental Communication Awards, Global Environmental Forum	Grand prize for Environmental Reporting (Prize of the Minister of the Environment)	Matsushita Electric Industrial Co., Ltd. The Panasonic Report for Sustainability 2007 Environmental Data Book 2007
		Prize as a Meister in Environmental Reporting	
		Prize for excellence in TV commercials on the environment from the president of the Global Environmental Forum	Matsushita Electric Industrial Co., Ltd. [eco ideas CM series, National]
	11th Green Reporting Award and Sustainability Reporting Award, Green Reporting Forum, Toyo Keizai Inc.	Prize for excellence in sustainability reporting	Matsushita Electric Industrial Co., Ltd. The Panasonic Report for Sustainability 2007
		Prize for excellence in "Green Reporting"	Matsushita Electric Industrial Co., Ltd. Environmental Data Book 2007

■Major honors in the environmental field (fiscal 2008)

Listed in the Dow Jones Sustainability Index, Global 100 Most Sustainable Corporations in the World, FTSE4Good Global 100 Index, and Climate Disclosure Leadership Index of Carbon Disclosure Project (CDP) 5

Ranked ninth among 520 manufacturers in the Nikkei Environmental Management Survey

Graded AA by Tohmatsu Evaluation and Certification Organization Co., Ltd.

‘eco ideas’ Factory

Concept/Future activities

Aiming to become factories that live in harmony with local communities

Panasonic aims to create factories that are opening to and living in harmony with local communities to offer firsthand opportunities to local residents to observe our environmental activities. As a model factory, we designated Kusatsu area, Shiga, Japan as ‘eco ideas’ Factory Biwako. Through cooperation among industry, universities, local communities, and the local government, the factory has undertaken various environmental and community activities. In June, Matsushita Home Appliance Group issued the Declaration for Environment. Our ‘eco ideas’ Factories concept will be introduced to a plasma display factory in Amagasaki, Hyogo, and a semiconductor factory in Uotsu, Toyama.

Activity 1

Activities at ‘eco ideas’ Factory Biwako

●Holding environmental conferences

To reflect the opinions of residents in local communities in our environmental sustainability management, we are working on exchanging opinions, as well as releasing and sharing information.


Environment conference with local neighborhood associations


Kusatsu Environmental Conference for Children

February: Participated in Kusatsu Environmental Conference for Children for the first time (Organized by Kusatsu city government)

May: Holding of an environment conference with local neighborhood associations (Organized by Matsushita Home Appliance)

●Participating in environmental events

We actively participate in local events to communicate our activities and receive comments.

August: Biwako Peron Boat Competition (Organized by the executive committee; Biwako Broadcasting Co., Ltd.)

October: Biwako Environmental Business Exhibition (Shiga Prefecture)
Global warming prevention fair in Biwako (Kusatsu City)


Biwako Peron Boat Competition


Biwako business exhibition

●Promoting biodiesel usage

We recover waste cooking oil from a factory canteen and produce biodiesel fuel, which is used for trucks and buses.

We started an industry-university joint project, and introduced our initiatives through a local collaboration seminar organized by Ritsumeikan University.


Bus powered by biodiesel

● Recycling kitchen garbage from canteens

We keep the garbage generated from canteens and supply it to local farmers. The garbage will then be processed to make fertilizer for their farming. This activity started in fiscal 2007 in cooperation with an NPO. By supporting forward-thinking farmers’ environmentally-conscious farming, we aim at contributing to the creation of a society where food resources are properly recycled.


Used as healthy food in a canteen

Primary processing fertilizer introduced to farmers

Introducing organically-grown rice


Utilized by environmentally-conscious farmers in Omihachiman

●Exchanges with local communities

As a part of Love the Earth Citizens’ Campaign, we proactively participate in local clean-up campaigns and offer our sports ground as a space for exchanges between local residents and employees working in Kusatsu.


Flea market


Biwako Day clean-up campaign

July: Biwako Day clean-up campaign (Shiga Prefecture)

May & November: Flea market
(Kusatsu citizens’ conference)
Picking up litter program (Kusatsu City)

August: Summer festival (Organized by Panasonic)

Year-round: Lending out our sports ground for rugby, football, and baseball games

Case Environmental education programs

Eco-factory tour

Panasonic offers environmental education opportunities to raise people’s awareness of the environment by presenting energy conservation technologies through refrigerator and air-conditioner factory tours. The eco-factory tour in March 2008 was attended by 70 sixth-grade students at Kusatsu City Tamagawa elementary school in Shiga, Japan. Students took a factory tour and made their own thermos bottles using a vacuum heat insulation material. To familiarize them with environmental issues, we conducted a variety of programs, such as a program using Eco-Promise Sheets for CO_2 emissions reduction. We also conduct factory tours for the general public and for various organizations.


Refrigerator factory tour


Making personal thermos bottles

Eco-Promise Sheets

Global Promotion of Eco Projects

Concept/Future activities

Promoting the three 'eco ideas' initiatives globally

Panasonic is implementing the Eco Projects to globally promote the three 'eco ideas' initiatives based on our 'eco ideas' Strategy. In particular, we have specified China as one of our strategic areas and launched the China Eco-Project to promote environmentally-conscious manufacturing since April, 2007. The project also aims to help all factories in China to be certified under the clean production audit, a major environmental certification system established by the Chinese government. In March 2008, Eco Projects also commenced in North America and Europe. We will introduce the project in other regions as part of such global promotion.

Employees put their signatures on the Declaration of Eco Activities documents at the North America kick-off event.

Europe Eco Project meeting

Activity

Aiming for Becoming a No.1 Environmentally Contributing Company in China

China continues to mark rapid economic development, accompanied by an increase in energy consumption. In particular, energy consumption from production and personal activities accounted for about 80% of the country's total energy consumption. Having 80 companies in China, we assume our responsibilities to promote the reduction of production and consumption-related energy consumption. We have formulated specific action plans and targets in terms of products, factories, and employees, and announced the Declaration of Becoming an Environmentally Contributing Company in China at the Panasonic Group Environmental Forum 2007 in China, held in September 2007. We will reinforce every aspect of our environmental sustainability management through the implementation of this plan, aiming at becoming an environment-friendly enterprise within three years.

● Declaration of Becoming an Environmentally Contributing Company in China

1. Panasonic will make all its products certified Green Products.

Panasonic will promote the development of products with enhanced environmental performance to ensure that all the products it will introduce in China during and after April 2007 will be Green Products. We will seek the acquisition of Chinese environmental labels*1 for all new models of designated products.*2 P. 13, 14, 25

2. Panasonic will transform all its factories into Clean Factories.

By matching the key environmental targets set in the 11th Five-Year National Economic and Social Development Plan (2006–2010) with Panasonic's own indicators, we aim to achieve the targets within fiscal 2010, and thus accelerate our efforts for environmental conservation in the production processes of all factories in China. At the same time, all of our manufacturing sites will aim to pass clean production audits*3 to ensure that each of the twelve Chinese companies becomes a National Environment-Friendly Enterprise*4 at municipal, provincial/autonomous municipal, and federal levels in China. P. 27–28

3. The employees at all of our Chinese Panasonic Group companies will participate in environmental activities.

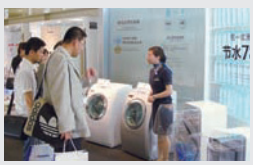
The employees at all of the Group companies in China will put Eco Activities into action at work, home, and in their communities. As a first step, approximately 70,000 employees at 74 Group companies in China made their Declaration of Eco Activities in July 2007. In accordance with their Ten Action Programs for Eco Life, they will promote their own environmental activities. In addition, we will help employees to raise their environmental awareness through collaboration with NGOs in promoting the Yellow Sea Ecoregion Support Project. P. 45–46

*1: Designated products: TVs, air conditioners, refrigerators, microwave ovens, washing machines, DVD players, rice cookers, digital imaging systems, home theater systems, projectors, lamps, facsimiles, and printers
*2: China Environmental Labelling, Water conservation Certification label, and China Ecolabelling
*3: Factory audit system established by the Chinese government to reduce the environmental impacts of factories
*4: System to commend companies at the industry's leading level in total environmental conservation activities implemented by the Chinese government. The levels include municipal, provincial/autonomous municipal and federal levels

Case Hosting an environmental forum in China

We hosted the Panasonic Group Environmental Forum 2007 in China jointly with the China-Japan Friendship Association on September 26, 2007, in Beijing. Approximately 250 guests from the Chinese government, educational, and other organizations attended the forum. During the forum, we announced our Declaration of Becoming an Environmentally Contributing Company in China, signed the joint declaration document of the Yellow Sea Ecoregion Support Project, and conducted special inspection tours inside Panasonic Center Beijing, our first show room outside Japan, which opened in July 2007. At the Second Japan-China Energy Conservation Forum held on September 27 and 28, we gave presentations on our environmental activities and displayed our environmentally-conscious products.

Special exhibition at the Environmental Forum



Exhibition at Panasonic Center Beijing

Showrooms

Panasonic opens corporate showrooms as a communication platform where specific products and services of the company are introduced to visitors and where customers can give their opinions and make requests directly to the company. The Panasonic Centers and National Centers, which showcase the aspirations of Panasonic and its group subsidiaries, introduce Panasonic's activities focusing on its two core business visions: 'Realizing a Ubiquitous Network Society' and 'Coexisting with the Global Environment.' At the Eco & Ud HOUSE, we make proposals for a lifestyle in 2010 targeting one entire household, including proposals about home electric appliances and about house design and equipment.

● Panasonic Center Tokyo


Ecology ideas


Ecogram

The Panasonic Center Tokyo updated its environmental exhibition corner when Panasonic announced its 'eco ideas' Strategy in October 2007. Visitors to the Center can operate the Ecogram to compare CO_2 emissions and daily power consumption before and after replacing their home electric appliances with more energy-efficient ones. Also, the Center communicates Panasonic's commitment to the environment not only through displays but also by holding a variety of events. For example, in December 2007, a three-day event was held at the Center in connection with Eco-Products 2007, which was held during the same period. More than 300 people participated in the 'eco ideas' Forum held as part of the event. This forum focused on environment-friendly lifestyles and was broadcast in a special program on FM Tokyo (a Japanese radio station), which was the co-organizer of the forum.

panasonic.co.jp/center/tokyo/

● Eco & Ud House


External view of Eco & Ud HOUSE

The Eco & Ud HOUSE was built on the premises of the Panasonic Center Tokyo, which is located in Ariake Tokyo, in January 2006. The house embodies our initiative of 'Creating Value for a New Lifestyle' using a life-size model house that employs the technology and expertise of Matsushita Electric Industrial, Matsushita Electric Works, and PanaHome Corporation. The model house was refurbished in February 2008. With the aim of reducing CO_2 emissions from households to one-third of the fiscal 2001 level in 2010, the house shows to visitors a future Eco & Ud lifestyle for one entire household —a lifestyle that is friendly to both people and the Earth and incorporates sophisticated information technology (IT).

panasonic.co.jp/euhouse/

● Panasonic Center Osaka


Environmental Showcase


Eco Action Stage

The Panasonic Center Osaka renewed its Environmental Showcase corner in March 2008 to introduce the 'Advanced Eco' measures that Panasonic is implementing through displays that allow visitors to actually experience and participate in eco activities. In addition, the Center newly created the Eco Action Stage corner as a communication space where visitors can enjoy learning about the causes and impact of global warming, as well as anti-global warming activities, being encouraged to follow the steps of Knowing; Learning and making declarations based on the lessons learned; Keeping a record of what was learned; and Continuing to do what has been declared. Furthermore, the Center holds eco guide tours, eco workshops, and other events in which visitors can learn in an enjoyable way, thereby increasing the environmental awareness and curiosity of children visiting the Center.

panasonic.co.jp/center/osaka/

● Panasonic Center Beijing


Environmental Showcase

The Panasonic Center Beijing was opened in July 2007 as Panasonic's first corporate showroom outside Japan. The Center comprises three showcase corners to introduce Panasonic's two business visions and its commitment to new lifestyle solutions and an event space. The Center introduces the measures that Panasonic is implementing regarding 'eco ideas' for Products, 'eco ideas' for Manufacturing, and 'eco ideas' for Everybody, Everywhere.

● National Centers (Tokyo and Osaka)


National Center Tokyo

National Center Osaka

National Centers offer a chance to see and try out a wide range of new lifestyle solutions.

The Dream Homes for Today floor embodies customers' vision for their homes, displaying the latest kitchen and other facilities, which incorporate cutting-edge digital network products for all aspects of daily living.

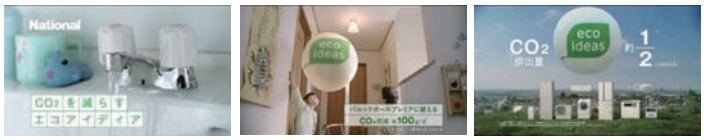
National Center Tokyo: national.jp/center/tokyo/en/

National Center Osaka: national.jp/center/osaka/en/

Environmental Gallery 2007

To inform as many people as possible about our stance and work on environmental preservation, we have undertaken a significant amount of advertising in newspapers and on TV and radio. Understandability is an important factor in our environmental communications because there are many topics in the environmental field that can be difficult for non-experts to understand. Our priority has been to communicate clearly how we deal with each major environmental issues and to accurately present the facts. Here is a selection form our environmental advertisements published in fiscal 2008.

■TV commercial



'eco ideas' comprehensive version, (won a prize for excellence at the Environmental Communication Awards 2007)

Sock monkey (Matsushita Eco Technology Center [METEC])

■Newspaper advertisements

ECO Communication Series

We communicate our commitment to the environment in the form of letters.

Measures for the CDM (April 26, 2007)

Fuel cells (June 5, 2007)

Environmentally-conscious lighting (June 6, 2007)

Lights-out campaign (June 22, 2007)

Biofuel-powered bus (June 25, 2007)

'eco ideas' Declaration and environmental technologies

'eco ideas' Declaration (October 12, 2007)

Clean engine (November 20, 2007)

N's Eco Project

'eco ideas' to reduce CO_2 emissions (December 23, 2007)

New Year's Day 2008

Panasonic's 'eco ideas' World

National brand 'eco ideas' for Products

■TV programs sponsored by the Company

Panasonic Special
Earth Frontier
Mirai-wo-sukuu Chikyuu Kyoshitsu
(Lesson on the Earth to Save the Future)

This program answers questions raised by children on the global environment and proposes what we can do from today, to save the future of the Earth.

Panasonic continues to evolve its environmental sustainability management by implementing measures to attain challenging targets and by nurturing capable personnel who can lead the implementation of environmental PDCA cycles.

Fiscal 2008 Targets and Results

Target by category

- Promoting visualization of environmental sustainability management by fiscal 2011

  Result Projects to be implemented across the Group were set to foster activities to reduce CO_2 emissions.

Cost

- Environmental activities management cost: 8.36 billion yen

Environmental Governance

Concept/Future activities

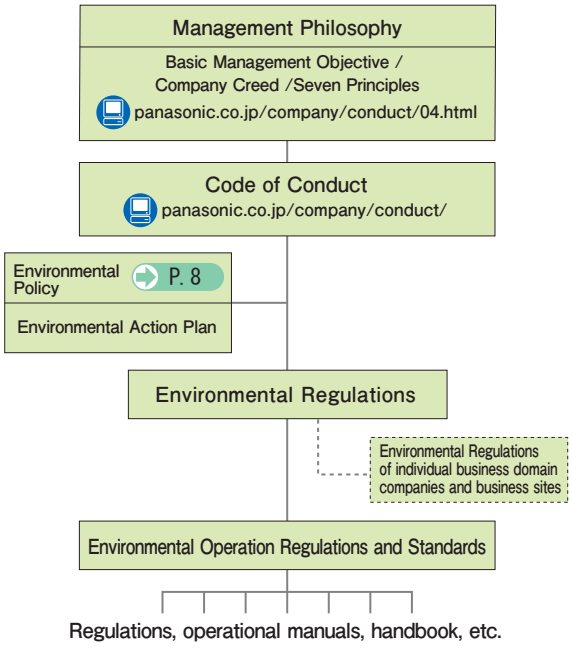
Promoting environmental sustainability management through challenging targets, careful planning, and steady implementation

Based on the corporate management policy published each January, and the Green Plan 2010, the Corporate Environmental Affairs Division develops Panasonic's annual environmental activity policies and priority plans. The Environmental Working Committee is then convened in January to communicate these plans to employees. Business domain companies, in turn, develop GP development plans and Three-Year CF plans that incorporate the policies and plans, and promote environmental sustainability management accordingly.

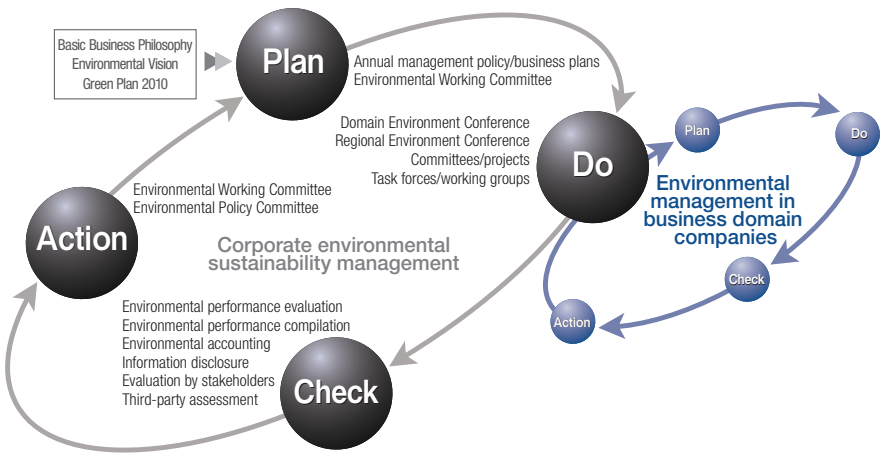
The Corporate Environmental Affairs Division coordinates business domain company plans and places them with the group-wide scheme for achieving the targets. The Environmental Working Committee in June reviews the final results of the previous year and redefines priority activities for the current year, as necessary, prior to the publication of the Panasonic Report for Sustainability and the Environmental Data Book. We also invite experts in environmental management from outside the Company to provide proposals to steadily improve our environmental sustainability management. In October, the Global Environmental Working Committee meets, where representatives of regional environmental divisions throughout the world gather to check the progress of plans for the first half of the year and begin discussing next year's environmental policies and priority plans. The committee is used as an opportunity to share the successful activities of each region and business domain company to boost the global level of environmental activities.

We believe that it is important to steadily implement the targets set under the Green Plan 2010 in a well planned manner and to ensure that the Environmental Working Committee, which meets three times each year, plays a central role in the rigorous implementation of PDCA cycles for environmental sustainable management.

■ In-house documents regarding environmental sustainability management



■ PDCA cycle of environmental sustainability management



Activity 1

System to promote environmental sustainability management

It is the responsibility of our Corporate Environmental Affairs Division to develop environmental strategies based on the policies adopted at our Management Conferences and by the Environmental Working Committee, to support group-wide environmental programs, and to ensure that individual business domain companies implement them. To address specific problems through group-wide action, the Division also establishes various environmental committees, subcommittees, and working groups (with members comprising environmental staff from the major business domain companies). In March 2007, the Factor 5 Project Committee, which was established as an advisory body to the Environmental Working Committee, was dissolved as it had successfully achieved its targets.

In April 2008, we established the Corporate CO_2 Emission Reduction Promoting Committee and have since been making concerted efforts to reduce CO_2 emissions from all our business activities.

In response to specific environmental regulations in particular countries, we have also established Regional Environmental Conferences, where discussions are held on problems unique to respective regions.

Activity 2

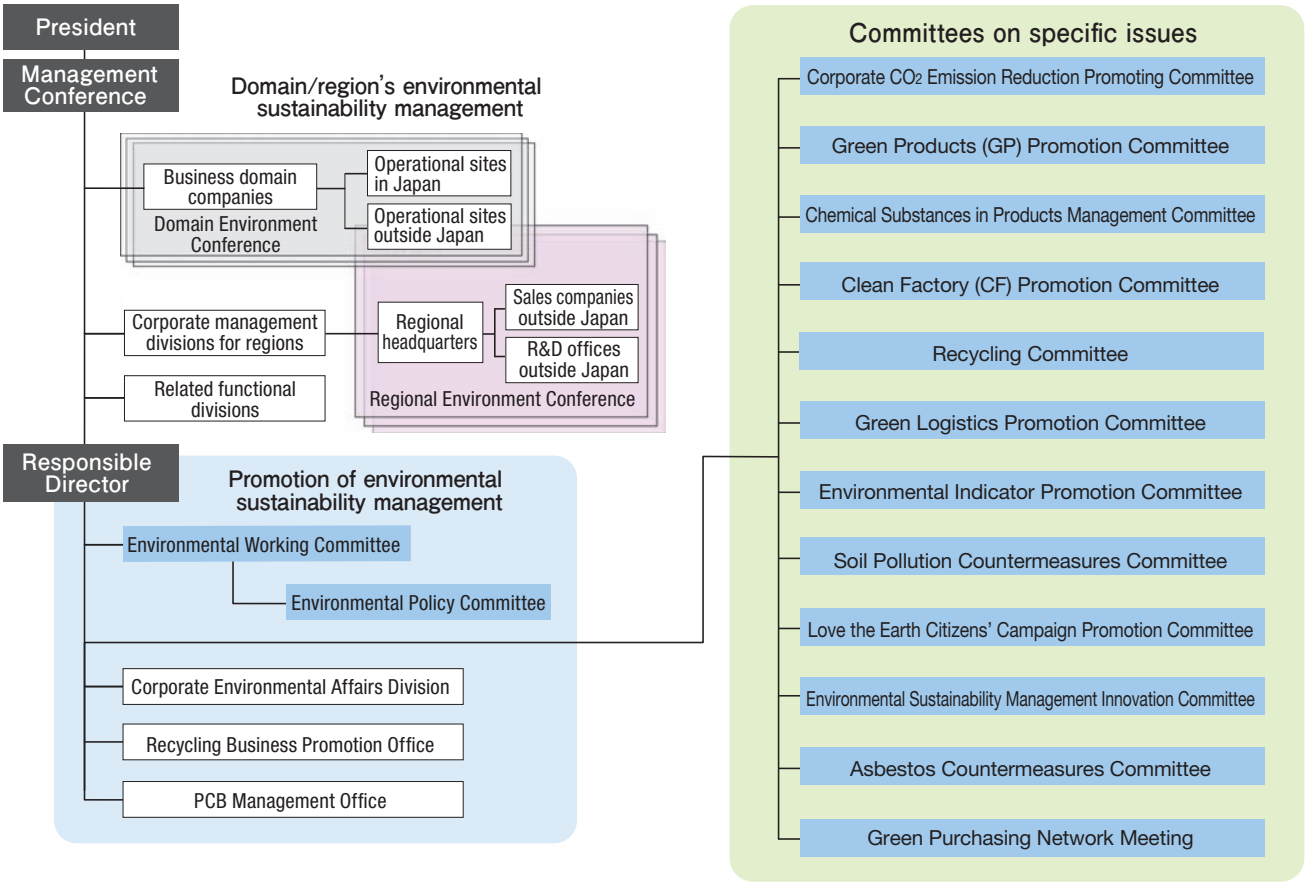
Developing environment specialists and defining their tasks

We regard environmental sustainability management as one of our management priorities, and in order to develop human resources who have a keen ability to support our environmental activities, we have clearly defined the role and position of employees who are to be engaged in environmental issues, and formulated clear policies on their education. We have been implementing measures to improve the skills of these employees and develop them into environmental specialists.

In April 2006, ahead of other Japanese manufacturers, we introduced our in-house skills evaluation system company-wide. Subsequently, in fiscal 2008, we reexamined the criteria for our in-house environmental specialists. As a result, we revised the criteria on their technical skills to clearly show the targets for skills that the environmental specialist should achieve.

In the future, we will significantly improve the productivity of our environmental specialists and help them achieve their individual targets.

■ Environmental sustainability management promotion system (fiscal 2009)



Activity 3

Environmental management systems

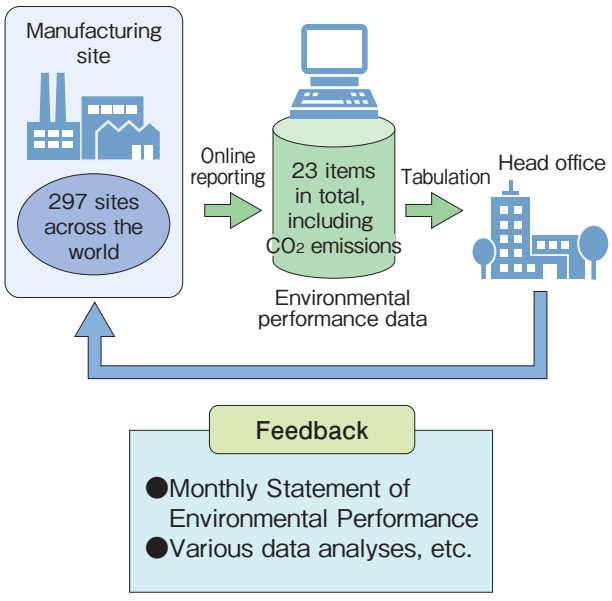
Panasonic is promoting environmental management systems on two levels: on a group-wide inter-domain level and on the level of individual business domain companies/business sites. Individual business domain companies and business sites operate environmental management systems for which they have gained ISO 14001 certification. For the implementation of the PDCA cycle for environmental sustainability management, it is essential to collect accurate data on energy consumption, waste generation, and use of chemical substances by each business site in a timely manner. To this end, Panasonic has developed and introduced an environmental performance system to globally manage its environmental data in an efficient manner.

● Environmental performance system

In the past, this system was mainly used for collecting and managing environmental data. Furthermore in fiscal 2008, we started collecting data from 297 manufacturing sites all over the world and evaluating the monthly environmental performance for each domain company and business site using this system.

Specifically, we collect major environmental impact data, including that related to energy consumption, waste generation, release and transfer of chemical substances, and water consumption, plus data on environmental impact reduction results, from each of our manufacturing sites, analyze the data, and give feedback on their environmental performance (progress and problems) to the sites, thereby helping them strengthen the implementation of PDCA cycles in their environmental sustainable management.

■ Operation of the environmental performance system



● Obtaining ISO 14001 certification

By the end of 1998, Panasonic had obtained ISO 14001 certification for every one of its manufacturing sites worldwide. Due to business integration, consolidation of business bases, and promotion of multi-site certification, the number of our ISO-certified sites varies every year.

■ Acquisition of ISO 14001 certification (P67-70)

As of March 2008

Region	Number of certified sites*		Total
	Manufacturing	Non-manufacturing	
Japan	44	14	58
Americas	17	2	19
Europe	13	1	14
Asia/Oceania	39	9	48
China/Northeast Asia	58	1	59
Total	171	27	198

* Including multi-site certification

Activity 4

Business performance evaluation based on Green Plan 2010

In fiscal 2002, we established a new system to evaluate the environmental sustainability management level of our individual business domain companies. Under this system, each business domain company voluntarily evaluates its own performance against achievement levels set forth for green products and clean factories in the Green Plan 2010. The results are then incorporated into the business evaluations of domain companies and utilized as an indicator for inspecting and improving environmental sustainable management. In fiscal 2009 onwards, we will focus on the Target Achievement Rate for Super GPs in our Green Product rating and will replace the energy-conservation rate with CO_2 emissions reduction in the criteria for our Clean Factory ratings.

■ Performance evaluation criteria for environmental sustainability management (fiscal 2009)

Green Product rating		
Indicator		Criteria*3
Target Achievement Rate for Super GPs*1		100%
Green Product Development Rate		82%
Clean Factory rating		
Category	Indicator	Criteria
CO_2 emissions	Business Plan Achievement Rate for CO_2 Emissions*2	100%
	Year-on-year reduction rate	5%
Chemical Substances	Reduction rate of release/transfer of chemical substances	6%
Waste	Reduction rate of total waste arisings (including revenue-generating waste)	3%
Water	Reduction rate of consumption	2.5%

*1 Target achievement rate for the number of models to be accredited as Super GPs set for each of the business domain companies.
*2 Target achievement rate for the amount of CO_2 emissions set for each of the business domain companies.
*3 Performance against the achievement targets will be evaluated. (Full points will be given if the criteria are met.)

Environmental Education

Concept/Future activities

Improving human resources as the basis for environmental activities

To develop, manufacture, and market environmentally-conscious products, it is necessary for manufacturers to make their employees aware of the impacts that they have on the environment in their manufacturing activities, including the lifecycle environmental impact of their products. In order to foster employee's environmental awareness, Panasonic has developed a wide-ranging environmental education system.

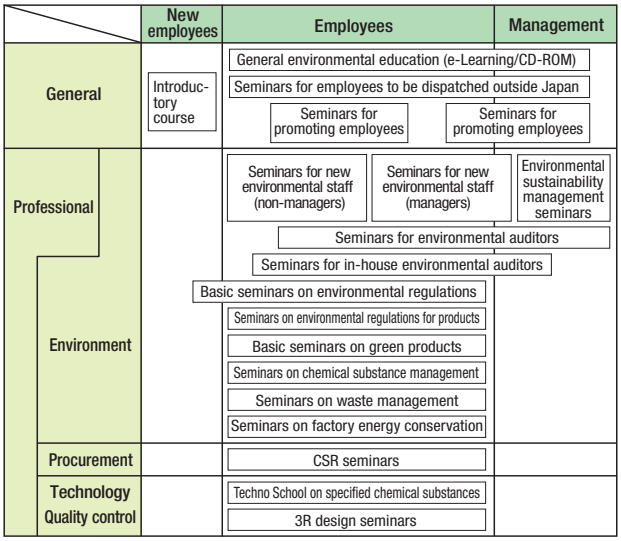
We will provide even better environmental training to employees to further improve their abilities.

Activity

Promoting environmental awareness based on our wide-ranging environmental education system

Using our extensive environmental education system, we provide our employees with general education on the environmental sustainability management-related knowledge required in their daily business operations, and also professional education to provide them with the specific environmental knowledge required in their individual jobs.

■ Environmental education system



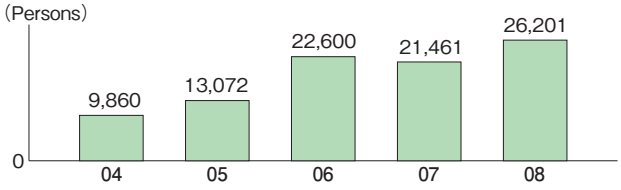
●Seminars for employees to be dispatched outside Japan

In response to increasing demand for implementing global environmental measures, we hold special seminars on the environment in the training sessions held for employees to be dispatched outside Japan. These seminars are held seven times a year. In fiscal 2008, 299 employees attended these seminars, with a total of 1,132 employees having attended them since 2004.

●General education through our e-learning system

In fiscal 2004, we launched a systematic and effective environmental education program using our e-learning system in Japan. In fiscal 2008, we expanded the items to be taught in the program by adding green purchasing and appropriate management of chemical substances to general environmental knowledge and initiatives taken by Panasonic and its group subsidiaries. Items other than initiatives taken by Panasonic and its group subsidiaries are optional, and employees must pass tests associated with the respective sections of the textbook to complete this program. We have also produced CD-ROMs with the same content for use in collective education provided at our manufacturing sites. Some domain companies and business sites independently provide their own general environmental education with regard to the contents of the program.

■ Employees who have completed the general environmental education using the e-learning system via the Internet



●Professional education to develop environmental specialists

Panasonic also provides professional education on the environment. We have been fostering the development of environmental specialists based on our guidelines for their education, definitions of environmental duties, and on the skills to be acquired and strengthened by employees wishing to take up such opportunities.

In fiscal 2008, as in the previous fiscal year, we held an environmental sustainable management seminar. In professional education, learning lessons from the activities conducted in the previous fiscal year, we expanded the content of the seminars on energy conservation and environmental laws and regulations and also for the basic seminar on Green Products. In addition, we launched a special seminar on risk management in China as a means of enhancing the global environmental abilities of employees.

■ Professional education seminars held in fiscal 2008

Name of seminar	Number of participants	Frequency
Environmental sustainability management seminar	11	1
Seminar for new environmental staff (for managers)	4	1
Seminar for new environmental staff (for non-managers)	18	1
Seminar on environmental laws and regulations (basic seminar)	38	1
Seminar on environmental laws and regulations (for products)	37	1
Basic seminar on Green Products	16	1
Seminar on chemical substance management	32	1
Seminar on waste management	23	1
Seminar on factory energy conservation	35	4
Total	214	12
Seminar on environmental risks in China	53	1

Field survey conducted in the environmental sustainability management seminar

Field survey conducted in the seminar on factory energy conservation (on diagnosis skills)

Seminar on environmental laws and regulations (for products)

Promoting environmental sustainability management through environmental accounting

Panasonic globally collects data on its environmental conservation costs and economic benefits obtained through its environmental activities in relation to the environmental impact (and to the reduction of this impact), and internally uses such data as the basic information for its environmental sustainability management. In fiscal 2008, we changed the method of disclosing our environmental accounting results in order to show our environmental sustainability management in line with our 'eco ideas' Strategy. Specifically, we disclose our environmental conservation costs and economic benefits (including economic benefits for customers) for each of our three 'eco ideas' categories. Through the effective use of environmental accounting, we are strengthening environmental sustainability management at our factories and offices.

● Environmental accounting results in fiscal 2008

In fiscal 2008, the environmental conservation costs consisted of 13.9 billion yens for capital investments (thus remaining at the same level as the previous fiscal year) and 48.5 billion yen for expenses. Expenses decreased from the previous fiscal year, mainly because we changed the calculation method for expenses in fiscal 2008: we now include only the depreciation costs for the fiscal year in the calculation, excluding the depreciation costs for past investments. Also, the economic benefit decreased from the previous fiscal year level, although we invested almost the same amount of funds. In response, we will make further efforts to improve our environmental conservation activities, including the increase of an amount of investment.

■ Environmental accounting

Scope of environmental accounting: Accounting period: From April 2007 to March 2008
Companies covered: Matsushita Electric Industrial Co., Ltd. and its affiliated companies across the globe

(million yen)

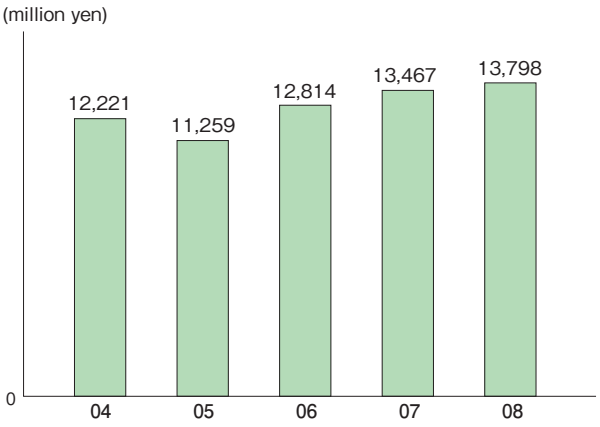
'eco ideas'	Classification by the Ministry of the Environment of Japan	Investments*1	Expenses*1,2	Economic benefit	Reference pages
For Products	R&D	555	15,172	(41,800)*3	P13-P14
For Manufacturing	Global environmental conservation	4,380	2,676	5,837	P27, P29-30
	Pollution prevention cost	6,099	6,514	—	P63-P64
	Resource circulation	809	6,084	22,881	P27, P33-P34
	Upstream and downstream	1,578	5,927	2,569	P24, P39-P42
	Administration	140	8,356	—	P57-P60
	Environmental remediation	237	3,595	—	P63-P64
For Everybody, Everywhere	Social activity	—	176	—	P47-P48
Total		13,798	48,500	31,287	—

■ Environmental conservation benefits (in physical terms)

'eco ideas'	Categories	Amount of emission reduction	Reference indicator: environmental impact	
		Fiscal 2008	Fiscal 2007	Fiscal 2008
For Products	CO_2 emissions (in Japan)	—	—	19.12 million tons
	Use of packaging materials (in Japan)	- 4,000 tons	136,000 tons	140,000 tons*4
For Manufacturing	CO_2 emissions from production activities	10,000 tons	3.98 million tons	3.97 million tons
	GHG emissions (other than CO2)*5	70,000 tons	370,000 tons	300, 000 tons
	Release and transfer of Key Reduction-target Chemical Substances	300 tons	5,000 tons	4,700 tons
	Final disposal of waste	1,300 tons	32,800 tons	31,500 tons
	Water consumption	3 million m^3	62 million m^3	59 million m^3
	CO_2 emissions from transportation activities	—	—	1.05 million tons

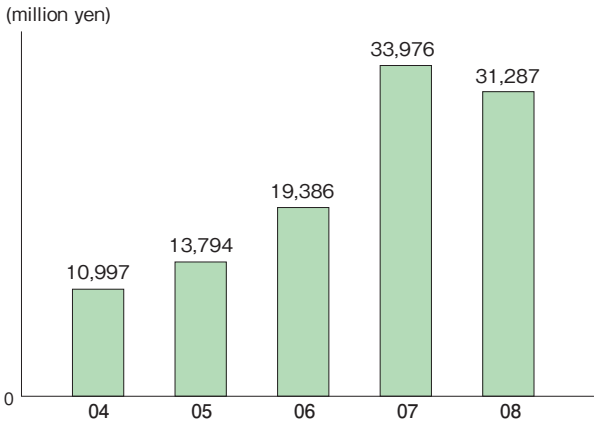
*1 Where the entire amount of investments and expenses cannot be regarded as environmental conservation costs alone, incremental or appropriate portions (divided proportionally) are calculated.
*2 Expenses include the cost of capital investment depreciation.
Change of the method to calculate expenses
Because the economic benefit is calculated only for the first year in which it was invested and so from fiscal 2008, we decided to include only the depreciation costs for the fiscal year in the calculation of expenses, excluding depreciation costs for past investments.
*3 The economic benefit for 'eco ideas' for Products is the economic benefit for customers in Japan, which is calculated based on the reduction of electricity bills for products in use. This economic benefit is not included in the calculation of the total economic benefit (see p. 13).
*4 Estimation for fiscal 2008
*5 GWP ton- CO_2 (GWP: global warming potential; see p. 30)

■ Investment trends



* Excluding Matsushita Electric Industrial and PanaHome for fiscal 2004

■ Economic benefit trends



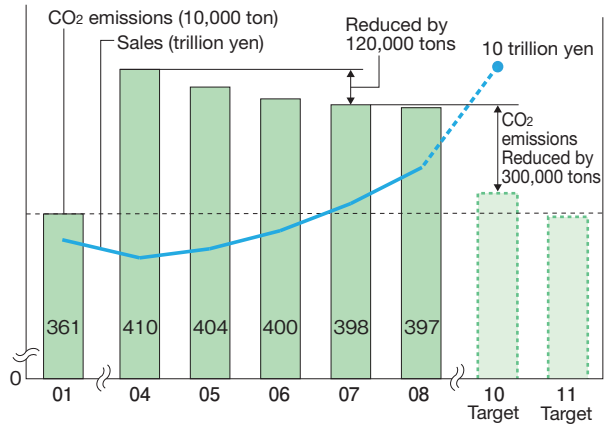
Cost and benefit of anti-global warming measures in environmental accounting : Reducing CO_2 emissions by 300,000 tons

Panasonic, in its three-year business plan (GP3 Plan) starting in fiscal 2008, aims to become qualified to take on the challenges of pursuing global excellence through steady growth with profitability and a reduction of environmental impact in all of its business operations.

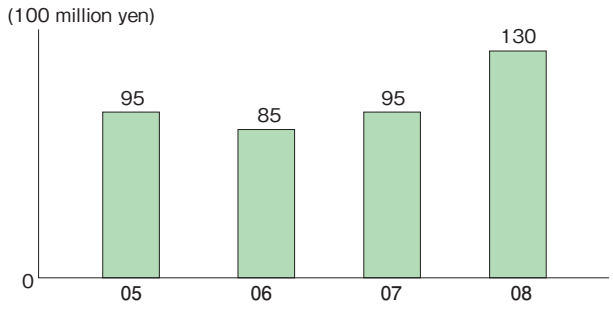
Our sales in past three years (from fiscal 2005 to 2007) increased but CO_2 emissions from all our manufacturing sites globally decreased by 120,000 tons (3%) with 27.5 billion yen investment. Sales in fiscal 2008,* which was the first year of the GP3 Plan, increased but CO_2 emissions decreased by 10,000 tons (0.1%) from the previous fiscal year level, with 13 billion yen invested in reducing our CO_2 emissions. We will implement further measures to improve our productivity with a steady increase in sales so that we can reduce our CO_2 emissions by 300,000 tons over the three-year period ending in fiscal 2010.

* Sales of Victor Company of Japan were excluded from the calculation of total sales because the CO_2 emissions from that company were not included in the total CO_2 emissions.

■ Sales and CO_2 emissions



■ Investments in CO_2 emission reductions



■ Investments in CO_2 emission reduction and the estimated reduction effect

Fiscal year	Investments in CO_2 emission reduction*	CO_2 emission reduction effect (only for the first year of investment)	CO_2 emissions
Results in fiscal 2007	9.5 billion yen	230,000 tons	3.98 million tons
Results in fiscal 2008	13 billion yen	210,000 tons	3.97 million tons

* Investments in CO_2 emission reduction include all the investments made for the reduction of CO_2 emissions and do not match the investments in environmental accounting, which accounts only for the incremental and appropriate portions.

There are many environmental risks associated with manufacturing activities, including those related with environmental accidents, pollution, and compliance with environmental laws and regulations. To improve our preparedness for such potential risks, we predict risks based on analyses of past data and social trends. We simulate possible emergency situations and take thorough preventive measures under our environmental sustainability management system.

Management of Soil and Groundwater

Concept/Future activities

Giving priority to the safety of local residents

During the latter half of the 1980s, soil and groundwater contamination by a chlorinated organic solvent was detected in some of our manufacturing sites. Since then, we have been implementing comprehensive measures to deal with this problem. In fiscal 1992, we issued the Manual for Preventing Contamination of Soil and Groundwater, which we have since used as our basis for all surveys conducted and preventative actions undertaken. In fiscal 1996, we completely discontinued the use of chlorinated organic solvents and in fiscal 2000 we compiled the Guide for the Prevention and Management of Environmental Pollution to thoroughly promote preventive measures. In response to the enhancement of environmental laws and regulations, such as the publication of criteria for the implementation of soil and groundwater pollution-related surveys and countermeasures by the Environment Agency (present Ministry of the Environment, Japan) in 1999, and the enforcement of the Soil Contamination Countermeasures Law in 2003, we reinforced our measures to survey and prevent contamination by volatile organic compounds (VOC) and heavy metals in fiscal 2003. Wherever contamination has been detected, we immediately implement remedial measures, including the introduction of latest technologies such as the bio-purification system for soil reclamation utilizing microorganisms, hold explanatory meetings and voluntarily make an announcement about the contamination through the media, as well as following the instructions of local authorities.

■ Soil and groundwater risk management policy

Policy
To place all soil and groundwater risks under management supervision with the aim of securing safety and peace of mind of local residents (by the end of fiscal 2004 in Japan, and by the end of fiscal 2006 outside Japan) Placing under management supervision means meeting all these requirements: 1. Completing surveys 2. Initiating remedial measures 3. Digging inspection wells 4. Implementing leakage preventive measures 5. Promoting thorough operational management

Activity

Implementing soil and groundwater surveys and remedial measures

As specific measures for soil and groundwater, we conduct historical surveys through on-site inspections and interviews, in addition to surveying the use of VOCs and heavy metals at our sites. Further, we conduct surface soil surveys at all our sites, excluding those where none of the specified substances were ever used. In sites where pollution levels exceed the standard levels in the surface soil surveys, we conduct detailed borehole surveys to identify the boundaries of the contaminated areas and take appropriate remedial measures. As a result of conducting surveys and implementing measures based on our Soil and Groundwater Risk Management Policy in fiscal 2003, we were able to place all soil and groundwater risks under management supervision at our manufacturing and non-manufacturing sites targeted for soil and underwater investigation within fiscal 2004.

At the same time, in response to the expansion of the targeted sites following business reorganization, although we have implemented further measures to ensure compliance with the Policy, we still have sites that have pollution levels exceeding the standard levels: 49 sites out of 194 sites in Japan and 7 sites out of 172 sites outside Japan. At these sites, we have been promoting measures to purify soil and groundwater in order to meet the requirements to place all soil and groundwater risks under management supervision.

As a result of these measures, we were able to completely purify soil and underwater at 40 sites by the end of fiscal 2008.

Outside Japan, we are promoting thorough legal compliance in individual countries. In countries where such legal systems are not well established, we are implementing voluntary measures based on our Soil and Groundwater Risk Management Policy.

■ Soil and groundwater pollution surveys and remedial measures

	Number of sites targeted for investigation*	Pollution exceeding the standard level detected	Remedial measures completed(Total)	Remedial measures underway
Japan	194	86	37	49
Outside Japan	172	10	3	7
Total	366	96	40	56

* Number of sites investigated in fiscal 2008 (including five sites still under investigation)

Bio-purification facilities to decompose VOCs contained in aquifer soil and underwater by the use of microorganisms in soil, thereby rendering the substances harmless

Initiatives to Address PCB Pollution

Concept/Future activities

Facilitating the proper management of PCB waste and starting full-scale measures for soil remediation

Panasonic discontinued the use of polychlorinated biphenyls (PCBs) in its products in 1972 and has since been strictly managing its PCB waste. In July 2001, the Law concerning Special Measures against PCB Waste was enforced in Japan and we have been storing and making notifications about our PCB waste according to this law. Further, we are making efforts to appropriately dispose of PCB waste as early as possible in collaboration with Japan Environmental Safety Corporation (JESCO).

As for the PCB-containing capacitors buried at five of our factories, which we voluntarily made public in January 2003, we have already completed all the measures required to prevent the spread of contamination outside the factories. We have also completed the excavation of buried devices at four of the five factories and plan to complete the work at the remaining factory by the end of fiscal 2009. We will store and make appropriate notifications about such unburied waste in compliance with the Law concerning Special Measures against PCB Waste.

We will continue to make efforts for the early decontamination of PCB waste in collaboration with JESCO and intend to quickly complete all the remedial measures for the soil contaminated with PCBs, thereby reducing our PCB-related environmental risks.

Activity 1

Towards the early decontamination of PCB waste

Panasonic completed the early application procedures to commission JESCO, a special governmental corporation dedicated to PCB waste treatment, to decontaminate its PCB-containing transformers and capacitors weighing 10 kg or more and PCB oil, and concluded agreements to commission the appropriate treatment of PCB waste with JESCO. We will continue to collaborate with JESCO in the decontamination of such waste.

As of the end of March 2008, a total of 137 PCB-containing high-pressure capacitors were decontaminated.

We will further promote the proper storage and management of PCB waste and implement measures for its early decontamination.

■ Numbers of PCB-containing items registered with JESCO and PCB-containing items already decontaminated

Type of waste	Registered with JESCO	Already decontaminated
Transformers and capacitors	2,027 devices	137 devices
PCBs and PCB-containing oil	Approx. 4,700 kg of PCBs and PCB-containing oil	—

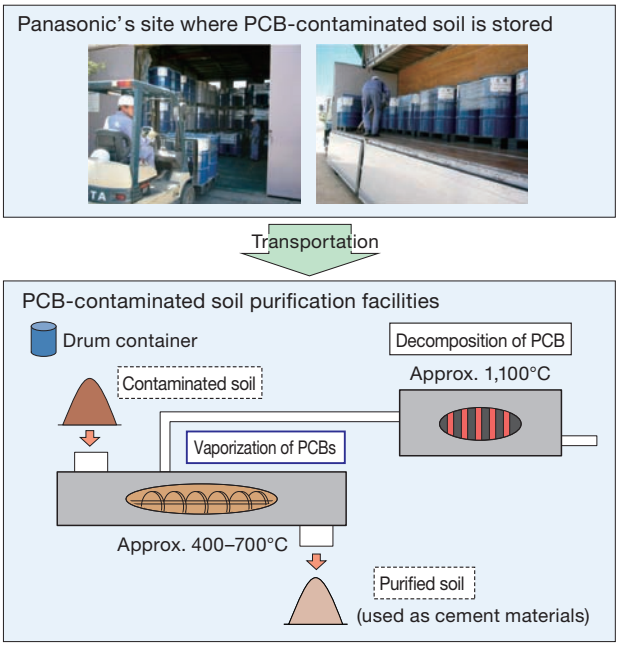
* As of March 31, 2008

Activity 2

Towards the early purification of PCB-contaminated soil

Panasonic commissioned the purification of contaminated soil to the PCB-contaminated soil purification facilities in Kitakyushu City (belonging to Term Corporation) and started full-scale measures to decontaminate the soil in September 2007. By the end of March 2008, we transported approximately 150 tons of soil to the purification facilities for treatment. In transporting the soil from where it was stored to the facilities in Kitakyushu City, we gave special considerations to safety. At the soil purification facilities, PCB–contaminated soil is purified by indirect heating. In this process, the PCBs are vaporized and decomposed through a reaction with steam from the soil. After a further safety check, purified soil is effectively used as cement materials. We will continue our measures to decontaminate PCB-contaminated soil in a prompt manner.

■ Panasonic's site where PCB-contaminated soil is stored



■ Treatment of PCB-containing capacitors

Site	Measures to prevent the spread of contamination	Groundwater remediation by pumping	Excavation	Progress
Matsushita Welding Systems (Toyonaka)	○	○	○	Completed
Matsushita Electric Industrial (former site of Tsukamoto Plant)	○	○	○	Completed
Panasonic Electronic Devices Japan (Matsue)	○	○	(To be completed by the end of fiscal 2009)	
Matsushita Electric Industrial Lighting Company (Takatsuki)	Unnecessary because no pollutants detected		○	Completed
Matsushita Electric Industrial Semiconductor Company (Nagaoka)			○	Completed

the NATURAL STEP

Third party opinion on Panasonic's "eco ideas" Strategy

Background:
The Natural Step Japan and The Natural Step UK have been asked to review and provide an independent third party opinion on "eco ideas" strategy. We reviewed The Panasonic report for Sustainability 2007, the Environmental Data Book 2007, as well as materials on Matsushita Group's "eco ideas" Strategy.

We conducted full-day dialogues with the General Manager of Environmental Planning Group and the Head of Environmental Affairs of Panasonic Europe, in both Sweden and in the United Kingdom. Our statement is based on the above information.

●Strengths of "eco ideas" Strategy

One of the key strengths of the new strategy is the absolute target it sets for reductions in CO_2 by 2011: "Panasonic is going to reduce global CO_2 emissions by 300,000 tonnes in three years while increasing production." This is reinforced by the decision to introduce responsibility for emissions of CO_2 as one of their key management indicators alongside Sales, Operating Profit, Inventory and CCM at 294 sites around the world.

For a company like Panasonic, plans to reduce direct emissions of CO_2 need to be matched by addressing the much bigger challenge of those emissions that result from the use of its products. Panasonic has segmented all its products into 4 categories, from the most energy efficient (which it calls 'No.1') to the least energy efficient. The company is going to double the percentage of the No.1 products from 16% to 30%, and eliminate altogether their low-ranked products, currently at 13%.

We were also very impressed at the way in which their approach to production in China – which we made a priority of in our commentary last year – has been substantially strengthened. As well as committing to becoming "an environmentally contributing company in China", they launched their Yellow Sea project (a 7 year collaboration with WWF), and committed to make all Chinese factories meet their "Clean Factory" criteria. All the new products launched in China will be certified "Green Products", and will be eligible for China's environmental labels. Finally, the Japanese-Chinese Joint "CO_2 Reduction Eco Challenge by 100,000-Employees!" story is very inspiring and should be rolled out as widely as possible as soon as possible.

We have no doubt that these are the right kind of steps along the journey to "Global Excellence" – a leadership ambition which has always been underpinned by very impressive data collection and management systems.

●Continuing Concerns

We discussed at some length three areas of concern which we also raised last year. Firstly, the categorization of products which Panasonic uses to define levels of "greenness" (V-products, Green Products, Superior Green Products, Super Green Products and 'No 1' energy efficient products) doesn't seem to be working as well either internally or externally as it should be.

For external stakeholders, it is confusing and difficult to relate to; internally, we question whether or not it is providing the right kind of incentives to drive behaviour change – there have been few Super Green Products over the last few years, yet arguably it is on this product category that Panasonic's reputation will ultimately rest.

Secondly, we are still worried that Panasonic is reluctant to adopt longer-term targets for key challenges such as reduction of CO_2 emissions and other greenhouse gases. Although the three-year strategy is certainly an ambitious one, it is important to know where Panasonic is aiming to get over the longer-term. What is the their 'long term carbon ambition'?

All sorts of targets are now being debated by national governments, for 2020, 2030 and 2050, and Panasonic will need to find the right way of aligning its own ambitions with these targets.

Thirdly, we believe this injection of long-term thinking will help to further integrate Panasonic's business planning ('Steady Growth with Prosperity') with its commitment to reducing environmental impacts across the entire business.

●Opportunities and Challenges

Sir Nicolas Stern*1 has described climate change as "the greatest market failure the world has ever seen". The best way of addressing that systemic market failure is to ensure that CO_2 bears a realistic price across all markets. There is an enormous opportunity for Panasonic to use all its technological expertise, and in particular its competence in the field of energy efficiency, to make rapid progress in helping more consumers and businesses towards what will need to become a very low-carbon global economy.

This is why Panasonic is absolutely right to put such a high priority on emissions from product use – which are 9 times higher than the direct emissions from manufacturing and distribution. Energy use from products (and associated emissions) will continue to grow, which means that Panasonic must be even more applied in making all its products meet the highest criteria ("No 1" for energy efficiency), and will need to develop a very different kind of engaged dialogue with consumers to enable them to manage total energy use far more intelligently.

But energy efficiency alone will not solve the problem. As we said before, Panasonic must start to source much more of the energy it needs from renewable resources. We would suggest that a much more proactive dialogue with government about the regulations and incentives both for the company and consumers to change to more energy efficient products or renewable energy should begin now. Otherwise, Japan may be left behind in development of renewable solutions, and Japanese companies like Panasonic will lose some of their competitiveness in the international marketplace – and with it, the chance to achieve Global Excellence.

We acknowledge, however, that Panasonic has a limited opportunity to develop and implement renewable energy in Japan in the short-term. But there are much better opportunities to implement renewable energy systems, perhaps through the extended use of the Clean Development Mechanism, through its 74 factories in China. Indeed, the leadership opportunities for Panasonic in China are enormous, in terms of both environmental and social issues.

●Conclusion

Panasonic's "eco ideas" strategy is proactive and ambitious as a short term strategy. Beyond that, it now needs to address long-term goals and objectives by "backcasting*2" from sustainable principles to assess precisely what a "completely sustainable Panasonic" will look like in the future.

The other crucial challenge for Panasonic is to begin to communicate even more dynamically with customers to help raise their awareness of energy efficiency and the benefits of a low-carbon lifestyle.

The world is changing fast, and all companies will need to change with it if they are not to lose the opportunities that will open up in new markets. Given its exemplary record and undisputed commitment to a more sustainable, equitable world, we would expect Panasonic to take leadership in the dialogue with industry and the contemporary political landscape.

*1 Professor of Economics and Government at the London School of Economics. He published "Stern Review on the Economics of Climate Change" in October, 2006.
*2 A methodology for planning that involves starting from a description of a successful outcome, then linking today with that successful outcome in a strategic way

Jonathon Porritt
Chairman of The Natural Step UK
Chairman of the UK Sustainable Development Commission

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Sachiko Takami
Chief Executive of The Natural Step Japan

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KPMG

Independent Review Report on "Matsushita Group Environmental Data Book 2008"

To the President of Matsushita Electric Industrial Co., Ltd.

1. Purpose and Scope of our Review

We have reviewed "Matsushita Group Environmental Data Book 2008" (the "Data Book 2008") of Matsushita Electric Industrial Co., Ltd. (the "Company") for the year ended March 31, 2008. Our engagement was designed to report to the Company, based on the results of our review, the credibility of the indicators for the period from April 1, 2007 to March 31, 2008 described in "Green Plan 2010" (the "Indicators") included in the Data Book 2008.

The Data Book 2008, including the identification of material issues, is the responsibility of the Company's management. Our responsibility is to independently report the results of our procedures performed on the Indicators.

2. The Standards and the Criteria used in our Review

We conducted our review referring to the "International Standard on Assurance Engagements 3000" (December 2003) issued by International Federation of Accountants (IFAC), and in accordance with the "Practice Guidelines for Assurance Engagements on Sustainability Information" (revised February 2008) issued by the Japanese Association of Assurance Organizations for Sustainability Information, with the criteria which are the standards the Company formulated (the "Company's Standards") and are shown in the Company's website (http://panasonic.net/eco/env_data/back_number/review2008e.pdf) as well as the code of the Japanese Association of Assurance Organizations for Sustainability Information.

3. Procedures Performed

We have performed the following review procedures;

(1) With respect to the Company's policies for compilation of the Data Book 2008, interviewed the Company's responsible personnel.
(2) Assessed the Company's Standards used for collecting, compiling and reporting the Indicators.
(3) With respect to the way of collecting the Indicators and the process flow of calculating them, interviewed the Company's responsible personnel and reviewed the systems and processes used to generate the values of the Indicators.
(4) Compared the Indicators on a sample basis with the supporting evidences to test the conformity in collection, compilation and reporting of the Indicators to the Company's Standards.
(5) Made on-site inspections of the Company's facilities domestic and overseas.
(6) Assessed the completeness of the Data Book 2008 in accordance with the applicable provisions of the code of the Japanese Association of Assurance Organizations for Sustainability Information.
(7) Evaluated the overall statement in which the Indicators are expressed.

4. Results of the Procedures Performed

We believe that our review procedures provide a reasonable basis for our conclusion.

Based on our review, nothing has come to our attention that causes us to believe that the Indicators are not collected, compiled and reported, in all material respects, rationally and in accordance with the Company's Standards.

Our firm and engagement members have no interest in the Company which would have to be disclosed pursuant to the provisions of the Assurance Standard for Environmental Reports (pilot version) issued by the Ministry of the Environment of Japan.

KPMG AZSA Sustainability Co., Ltd.

KPMG AZSA Sustainability Co., Ltd.

Osaka, Japan
May 26th, 2008

ISO 14001 Certification Sites

* As of March 31st, 2008. 'Date of registration' refers to a date when the first certification has registered. When certification organizations have changed, it refers to the latest dates when certification is registered under new organizations.

Type	Sites	Major Products, Business Fields	Certification Organizations	Certification Number	Date of Registration
Japan (Manufacturing)	Semiconductor Company				
	Multiple-site Certification Group (6 sites)	Semiconductor	JACO	EC97J1114	1997 NOV
	Panasonic Semiconductor Device Solutions Co., Ltd., Shirakawa Site	Cellular phone camera, In-vehicle camera	JACO	EC98J2012	1995 DEC
	Panasonic Semiconductor Discrete Devices Co., Ltd., Multiple-site Certification Group (5 sites)	Semi-conducter devices, Plating component, Micro component, Magnetron, Indicator	JACO	EC97J1029	1997 JUN
	Panasonic Semiconductor Opto Devices Co., Ltd.	LED, LCD module	JQA	JQA-E-80029	1997 MAR
	Matsushita Battery Industrial Co., Ltd.				
	Multiple site certification (4sites)	Batteries	LRQA	YKA0771898	1998 JUL
	Panasonic Electronic Devices Co., Ltd.				
	Multiple-site Certification Group (23 sites)	Electronic components	JQA	EM1015	2000 SEP
	Motor Company				
	Multiple-site Certification Group (4 sites)	Home appliance/Air conditioner/IT device motor, Industrial compact geared motor	LRQA	YKA0771761	1997 AUG
	Panasonic Factory Solutions Co., Ltd.				
	Kita Kadoma site	Micro-electronics maounting system, Maintenance components for electronics mounting equipment	LRQA	YKA 4004176	2008 FEB
	Kofu Site	Electronic chip mounter	LRQA	YKA 4004098	2007 OCT
	Tosu Site	Electronic chip mounter	LRQA	YKA0771759	1997 AUG
	Matsushita Welding Systems Co., Ltd.				
	Multiple-site Certification Group (2 sites)	FA/Welding equipment, Observation controlling system equipment, Industrial material	JACO	EC97J1213	1998 MAR
	Panasonic AVC Networks Company				
	Multiple-site Certification Group (12 sites)	TV, DVD, Audio equipment, DSC、PC, PDP	JACO	EC98J2010	1995 NOV
	Panasonic Communications Co., Ltd.				
	Saga Site	Printer, Sccaner, electric white board, chord-free telephone set	LRQA	YKA0771152	1997 JUL
	Kumamoto Site	Optical disc drive, PBX	LRQA	YKA0771785	1998 MAR
	Oita Site	IC Lead Frame, Magnetic/IC card reader and writer	LRQA	YKA0771777	1998 MAR
	Utsunomiya Site	Toner, Laser scanning unit	JACO	EC97J1223	1998 MAR
	Nigata Site	Digital imaging system, Facsimile	JACO	EC97J1020	1997 MAY
	Panasonic CC Graphics Co., Ltd.	Press reporting equipment	JACO	EC98J1114	1998 DEC
	Panasonic Communications Miyazaki Co., Ltd.	Ceramic capacitor, Coil	JQA	JQA-E-90082	1997 DEC
	Yokohama Site (Panasonic Mobile Communications Co., Ltd., Panasonic System Solutions Company, Panasonic Semiconductor Device Solutions Co., Ltd.)				
	Multiple-site Certification Group (2 sites)	Communications network system, Solutions, Cellular phone camera	LRQA	YKA0771842	1997 DEC
	Panasonic Mobile Communications Co., Ltd.				
	Shizuoka Site	Cellular phone	LRQA	YKA0771841	1997 DEC
	Panasonic Automotive Systems Company				
	Matsumoto Site	Car navigation system, Car audio equipment	LRQA	YKA0771743	1997 JUN
	Home Appliances Group				
	Household Appliances, Laundry Systems Business Unit, Corporate Engineering Division (3 sites)	Automatic washing machine, Dish washer & dryer, Organization staff, Corporate Engineering Division	LRQA	YKA4004116	2007 OCT
	Vacuum Cleaner Business Unit	Vacuum cleaner, Garbage disposer	JACO	EC98J1017	1998 JUN
	IH Cooking Equipment Business Unit	IH cooking heater	JET	E06-525	2006 APR
	Cooking Appliances Business Unit	IH rice cooker, Rice cooker, Electric pot, Cooking appliance	JET	E98-043	1998 APR
	Nara Site	Microwave oven, Safety meter, Hygiene toilet seat, HP	JACO	EC97J1124	1997 NOV
	Refrigeration & Air Conditioning Business Domain Multiple-site Certification Group (7 sites)	Air conditioner, Refrigerator, Compressor, Vending machine	LRQA	YKA0771754	1997 OCT
	Lighting Company				
	Multiple-site Certification Group (4 sites)	Fluorescent lamp, light bulb	JACO	EC99J2017	1996 SEP
	Matsushita Ecology Systems Co., Ltd.				
	Kasugai Plant	Ventilation fan, Kitchen-hood, Ventilation equipment	JACO	EC99J2042	1996 DEC
	Osaka Matsushita Ecology Systems Co., Ltd.	Air purifier, Humidifier, Dehumidifier	JACO	EC97J1194	1998 FEB
	Matsushita Environmental & Air-conditioning Engineering Co., Ltd.	Environmental and water business, Air conditioning system, Clean system	JACO	EC00J0288	2001 MAR
	Panasonic Shikoku Electronics Co., Ltd.				
	Multiple-site Certification Group (4 sites)	AV equipment, Computer peripheral, Medical equipment, Medical product	JACO	EC97J1224	1998 MAR
	Matsushita Electric Works, Ltd.				
	Multiple-site Certification Group (38 sites)	Lighting, Information system, Housing equipment, Building materials, Control equipment, Electric/electronic materials	LRQA	YKA0770279	1996 OCT
	SUNX Ltd.	Sensors & Systems, Laser Marking & Processing, Advanced intelligent Sensor	JQA	JQA-EM0528	1999 SEP
	PanaHome Corporation				
	Multiple-site Certification Group (2 sites)	Production of components for prefabricated housing	JTCCM	RE0206	2001 MAR
	Kanagawa Branch Construction Department	Construction of prefabricated housing	JTCCM	RE0233	2001 NOV
	Saitama Branch and Saitama-nishi PanaHome Corporation	Construction of prefabricated housing	JTCCM	RE0320	2003 MAR
	Matsushita Eco Technology Center Co., Ltd.	Recycling for used home appliances	JACO	EC01J0383	2002 MAR

Type	Sites	Major Products, Business Fields	Certification Organizations	Certification Number	Date of Registration
Japan (Manufacturing)	Panasonic Cycle Technology Co., Ltd.	Bicycle, Electromotive bicycle, Electrical device	JACO	EC99J1013	1999 MAY
	National Tyre Co., Ltd.	Bicycle tire, Tube, Industrial rubber component, Industrial resin component	CIJ	CI/1185E	2003 DEC
	Wakayama Machine Tools Co., Inc.	Compressor	JACO	EC98J1124	1998 DEC
Japan (Non-manufacturing)	Matsushita Electric Industrial Co., Ltd., Headquarter (Head office, OBP, Panasonic Center Tokyo)		JACO	EC98J1057	1998 SEP
	Matsushita Electric Industrial Co., Ltd., Tokyo Site		JACO	EC98J1049	1998 AUG
	Matsushita Electric Industrial Co., Ltd., R&D Group, Multiple-site Certification Group (3 sites)		JACO	EC98J1046	1998 AUG
	Matsushita Electric Industrial Co., Ltd., Corporate Manufacturing Innovation Division		JACO	EC97J1235	1998 MAR
	Matsushita Electric Industrial Co., Ltd., Industrial Marketing & Sales Group		JACO	EC00J0167	2000 DEC
	Panasonic Communications Co., Ltd., Fukuoka Headquarters		LRQA	YKA0771775	1997 DEC
	Panasonic Communications Co., Ltd., Meguro Site		JACO	EC01J0209	2001 DEC
	Panasonic Mobile Communications R & D Lab Co., Ltd. Multiple-site Certification Group (3 sites)		LRQA	YKA0773020	2002 MAR
	Panasonic System Solutions Japan Co., Ltd.		JMAQA	JMAQA-E503	2003 FEB
	Panasonic Factory Solutions Sales & Engineering Japan Co., Ltd.		JQA	JQA-EM1845	2001 OCT
	Panasonic Mobile & System Engineering Co., Ltd.		JQA	JQA-EM2598	2002 SEP
	Matsushita Marketing Training Institute Co., Ltd.		JACO	EC99J1131	1999 DEC
	Matsushita Electric Health Insurance Union Matsushita Industrial Safety Science Center		JACO	EC99J1234	2000 MAR
	Matsushita Logistics Co., Ltd. Block A		JACO	EC00J0062	2000 JUL
Japan (Third-Sector Companies)	Kibi Matsushita Co., Ltd.	DVC camcorder assembly, DVC LCD unit & lens unit	JACO	EC98J1056	1998 SEP
	Katano Matsushita Co., Ltd.	Micro cassette tape, PDP TV component assembly	JACO	EC98J1142	1999 JAN

Type	Domain/Affiliated Company Sites	Major Products, Business Fields	Certification Organizations	Certification Number	Date of Registration
Americas (Manufacturing)	Panasonic Motor Company, Division of Panasonic North America	Motors	UL	A7287	1999 MAY
	Panasonic Automotive Systems Company of America	Automobile equipment	BSI	EMS 62857	1998 NOV
	Panasonic Battery Corporation of America	Lithium battery	BVQI	163997	1999 JAN
	Panasonic Battery Corporation of America	Battery material (DI cans)	BVQI	164112	1999 JAN
	Panasonic Electronic Devices Corporation of America	Electrolytic capacitor, Car speaker, Aluminum foil	AWM	00012	1997 AUG
	Panasonic Disc Manufacturing Corporation of America	DVD disc	UL	A6976	1999 APR
	Panasonic Avionics Corporation	Avionics	UL	A9111	2001 JAN
	Panasonic de Mexico, S.A. de C.V.	Color TV, Stereo	TUV	950 99 0441	1999 JUN
	Panasonic Electronic Devices de Tamaulipas, S.A. de C.V.	Car speaker, Switch	BSI	EMS 53398	2000 JAN
	Panasonic AVC Networks de Baja California, S.A. de C.V.	TV	BSI	EMS 39506	1998 MAY
	Panasonic Communications de Mexico, S.A. de C.V.	Cordless phone	BSI	EMS 57911	1998 FEB
	Panasonic Automotive Systems de Mexico S.A. de C.V.	Car audio equipment	TUV	743007646	1997 DEC
	Panasonic Home Appliances de Mexico S.A. de C.V.	Vacuum cleaner, Microwave oven	DNV	CERT-02193-2005-AE-HOU-ANAB, Rev. 1	2002 MAY
	Panasonic Electric Works Mexicana S.A. de C.V.	Switching device, Lighting fixture, Home appliance	DNV	CERT-02937-2004-AE-HOU-ANAB, Rev. 1	2000 NOV
	Panasonic Centroamericana S.A.	Dry battery	BVQI	202242	1999 MAR
	Panasonic Peruana S.A.	Dry battery	DNV	CERT-4882-2007-AE-BRA-RvA	1998 MAY
	Panasonic do Brasil Ltda.	TV, Camcorder, Audio equipment, Microwave oven, Battery	BVQI	198378	1999 JAN

Type	Domain/Affiliated Company Sites	Major Products, Business Fields	Certification Organizations	Certification Number	Date of Registration
Europe (Manufacturing)	Panasonic Manufacturing U.K. Ltd.	Microwave oven, Set-top box, PC	BSI	4695997	1997 JUL
	Panasonic Communications Company (U.K.) Ltd.	Digital PBX, Cordless telephone sett	BSI	34828	1996 SEP
	Panasonic Electric Works Europe AG, Germany Plant	Switching device, Relay	BVQi	DE60000326B	2000 APR
	Panasonic Battery Belgium N.V.	Alkali battery	KEMA	89999	1998 NOV
	Panasonic Electric Works Electronic Materials Italia S.p.A	Copper clad laminate	CSQ ECO	9191.MATS	2002 DEC
	Panasonic Electric Works Electronic Materials Europe GmbH	Copper clad laminate, Prepreg	OQS	089/0	1999 OCT
	Panasonic Battery Poland S.A.	Dry battery	KEMA	99654	1998 JUN
	Panasonic AVC Networks Czech, s.r.o.	TV	EZU	8040070	1998 NOV
	Panasonic Automotive Systems Czech, s.r.o.	Car audio equipment	CQS	CQS 40/2006	2003 FEB
	Panasonic Electric Works Czech s.r.o.	Switching device	BVQi	104034	2002 JAN
	Panasonic AVC Networks Slovakia s.r.o	DVD recorder	SKQS	359106	2006 AUG
	Panasonic Electronic Devices Slovakia s.r.o.	Tuner, Power transformer, Controlling board	TUV SUD	12 100/104 28395/02 TMS	2000 JUL
	Vossloh-Schwabe GmbH Group	Lighting fixture-related device	DQS	DE-000421UM	2006 JAN

Type	Domain/Affiliated Company Sites	Major Products, Business Fields	Certification Organizations	Certification Number	Date of Registration
Asia/Oceania (Manufacturing)	Panasonic Semiconductor Asia Pte., Panasonic Semiconductor Singapore	Semiconductor	AJA	AJA97/1118	1997 DEC
	Panasonic Electronic Devices Singapore Pte. Ltd.	Surge Absorver, Resistor, SP-CAP, SAW device	AJA	AJA98/1151	1998 APR
	Panasonic Factory Solutions Asia Pacific Pte. Ltd.	Electronic chip mounter	TUV SUD PSB	97-0019	1997 DEC
	Panasonic AVC Networks Singapore Pte. Ltd.	PDP, Home theater system	BVQI	SGPSGP001177	1997 FEB
	Panasonic Refrigeration Devices Singapore Sdn. Bhd.	Refrigerator compressor	PSB	96-0004	1996 NOV
	Panasonic Manufacturing Malaysia Bhd.	Electric home shower,Fan, Rice cooker, Ventilation fan, Dry battery	SIRIM	P07560001	1996 DEC
	Panasonic Semiconductor Discrete Devices (M) Sdn. Bhd.	Semiconductor	SIRIM	P07570001	1998 DEC
	Panasonic Electronic Devices Malaysia Sdn. Bhd.	Electrolyte condenser, chip resistor	SIRIM	P07190002	1998 OCT
	Panasonic AVC Networks Kuala Lumpur Malaysia Sdn. Bhd.	TV	SIRIM	P05740001	1997 JAN
	Panasonic AVC Networks Johor Malaysia Sdn. Bhd.	Radio cassette recorder, Mini-compo system, Home theater system	BVQI	200336	1997 FEB
	Panasonic Communications (Malaysia) Sdn. Bhd.	Facsimile, multi-function telephone set	SIRIM	P05720001	1997 OCT
	Panasonic HA Air-Conditioning (M) Sdn. Bhd.	Air conditioner	SIRIM	P06860001	1997 JUN
	Panasonic Compressor Malaysia Sdn. Bhd.	Air conditioner rotary compressor	SIRIM	P07150001	1997 DEC
	Panasonic Foundry Malaysia Sdn. Bhd.	Precision casting component	SIRIM	P06920001	1998 JUL
	Panasonic Refrigeration Devices Malaysia Sdn. Bhd.	Refrigerator compressor	SIRIM	P06910001	1998 MAY
	Panasonic (Thailand) Co., Ltd. Group	Color TV, Electronic component, Electric fan, Car audio equipment	AJA	AJA98/1203	1998 JUL
	Panasonic Battery (Thailand) Co., Ltd.	Dry battery, Storage battery, Battery application equipment	SGS	(UKAS) TH07/0094EM (NAC) NE042/01	1998 JUL
	Panasonic Home Appliances (Thailand) Co., Ltd.	Washing machine, Rice cooker, Refrigerator, Electric pot	AJA	AJA98/1221	1998 JUL
	Panasonic Refrigeration Devices (Thailand) Co., Ltd.	Heat exchanger, Thermostat	AJA	AJA98/1207	1998 JUL
	Panasonic Electric Works (Thailand) Co., Ltd.	Relay, Home appliance	AJA	AJA99/1592	1999 OCT
	Panasonic Electric Works Steel (Thailand) Co., Ltd.	Conduit, Wiring materials	SGS	CH/99/2182	1999 DEC
	Panasonic Electric Works (Ayuthaya) Co., Ltd.	Copper clad laminate, Molding material, Sealant, Wiring device, Lighting fixture	LRQA	BGK403378	1999 NOV
	Panasonic Electric Works (Khon Kaen) Co., Ltd.	Electromagnetic relay, Connector, Switch	LRQA	BCK0403788	2005 AUG
	Panasonic Manufacturing Philippines Corporation	TV, Refrigerator, Air conditioner, Washing machine, Dry battery	SGS	GB05/65922.00 GB05/65922.01	1998 MAY
	Panasonic Communications Philippines Corporation	Digital imaging system, Optical disc drive	SGS	CH02/0617	2002 JUL
	PT. Panasonic Manufacturing Indonesia	Audio equipment, Refrigerator, Air conditioner, Washing machine, Pump	SGS	GB98/11900	1998 JAN
	PT. Panasonic Semiconductor Indonesia	Semiconductor	SGS	GB00/18282	2000 JUL
	PT. Panasonic Gobel Battery Indonesia	Dry battery, Battery application equipment, Lithium battery	ABSQEI	32461	1997 FEB
	PT. Panasonic Electronic Devices Batam	Speaker, Resistor, Trance, Coil	AJA	AJA04/7248	2004 FEB
	PT. Panasonic Lighting Indonesia	PA-LOOK Ball, Fluorescent lamp	LRQA	JKT 403244	1999 DEC
	PT. Panasonic Shikoku Electronics Indonesia	Camcoder, Power supply unit	SGS	GB06/70180	1998 JUN
	PT. Panasonic Shikoku Electronics Batam	HDD fluid bearing motor, Hard disk, Optical disc drive	AJA	AJA02/5622	2002 SEP
	PT. Panasonic Electric Works Gobel Manufacturing Indonesia	Lighting fixture, Ballast, Wiring device	SGS	GB03/60117	2000 JUN
	PT. Panasonic Electric Works Mitra Indonesia	Wiring materials, Free access floor	TUV	1104000465	2000 MAY
	Panasonic AVC Networks Vietnam Co., Ltd.	TV	BVQI	169639	2001 JAN
	Panasonic Battery India Co., Ltd.	Dry battery	TUV	44 104 010 402-E3	1997 DEC
	Panasonic Carbon India Co., Ltd.	Dry battery carbon rod	TUV	44 104 000 064-E3	1998 APR
	Panasonic AVC Networks India Co., Ltd.	TV	RWTUV	04 104 375	2001 FEB
	Panasonic Home Appliances India Co., Ltd.	Rice cooker, Blender	TUV	04 104 085-E3	1998 DEC

Type	Domain/Affiliated Company Sites	Major Products, Business Fields	Certification Organizations	Certification Number	Date of Registration
China/Northeast Asia (Manufacturing)	Beijing, Matsushita Color CRT Co., Ltd.	Color TV CRT	CQC	0106E20521R1L/1100	1996 DEC
	Panasonic Electronic Devices (Beijing) Co., Ltd.	Tuner, Speaker	CQC	0104E20900R0L/1100	1998 MAY
	Panasonic Electronic Devices Film Capacitor (Beijing) Co., Ltd.	Film capacitor	CCCI	02105E10007R2M	1998 DEC
	Panasonic Putian Mobile Communications Beijing Co., Ltd.	Cellular phone	LRQA	C982002	1998 NOV
	Panasonic Lighting (Beijing) Co., Ltd.	Fluorescent lamp	CCCI	02105E10122R1M	2002 DEC
	Panasonic Electric Works (Beijing) Co., Ltd.	Lighting fixture, Wiring device, Home appliance	CEC	05506E10107R2L	2000 OCT
	Panasonic Electric Works Automation Controls (Beijing) Co., Ltd.	Switching device	CNAB	05505E10326R2L	1999 NOV
	Panasonic Electronic Devices (Tianjin) Co., Ltd.	Fixed resistor, Capacitor	SGS	CN08/10207	1999 JAN
	Panasonic Welding Systems (Tangshan) Co., Ltd.	Welding equipment	CCEMS	01-1998-065	1998 NOV
	Panasonic Storage Battery (Shenyang) Co., Ltd.	Small sealed lead storage battery	CEPREI	01205E10221R2L	1998 DEC
	China Hualu Panasonic AVC Networks Co., Ltd.	DVD equipment, LCD projector, Home theater system, Micro-compo	CCCI	006R2	1998 JUN
	Panasonic Automotive Systems Dalian Co., Ltd.	Car audio equipment	CCCI	019R2	1998 DEC
	Panasonic Communications (Dalian) Co.,Ltd.	Cordless phone, Optical disc drive	CQC	00106E20109R0M/2100	2006 SEP
	Panasonic Carbon (Anyang) Co., Ltd.	Dry battery carbon rod	CCCI	02105E10064R2M	1999 FEB
	Panasonic AVC Networks Shandong Co., Ltd.	TV	CCCI	02105E10003R2M / 047R2	1998 NOV
	Panasonic Electronic Devices (Qingdao) Co., Ltd.	Transparent touch panel, Switches	CCCI	U06606E0068R2L	1997 DEC
	Panasonic Home Appliances Refrigeration (Wuxi) Co., Ltd.	Refrigerator	CQC	0105E20066R0M/ 3200	1998 OCT

Type	Domain/Affiliated Company Sites	Major Products, Business Fields	Certification Organizations	Certification Number	Date of Registration
China/Northeast Asia (Manufacturing)	Panasonic Refrigeration Devices (Wuxi) Sdn. Bhd.	Refrigerator compressor	CCCI	02104E10188R3L	1998 OCT
	Panasonic Battery (Wuxi) Co., Ltd.	Lithium ion battery, Nickel hydride battery	CQC	0106E2234ROL/3200	2006 JUN
	Panasonic Motor (Hangzhou) Co., Ltd.	Compact motor for home appliance and air conditioner	CCIC	04007E10096R1L	1998 DEC
	Panasonic Home Appliances Washing Machine (Hangzhou) Co., Ltd.	Washing machine	WIT	15104E5298R11	1997 DEC
	Panasonic Home Appliances (Hangzhou) Co., Ltd. Multiple-site Certification Group (5 sites)	Rice cooker, Vacuum cleaner, Hygiene toilet seat, Housing equipment, Air conditioner comprresor	CCIC	02107E10081R3L	1998 NOV
	Panasonic Semiconductor (Shanghai) Co., Ltd.	Semiconductor	BVQi	271754	1998 DEC
	Panasonic Magnetron (Shanghai) Co., Ltd.	Magnetron	SQC	04204E10021R1M	1998 JUN
	Panasonic Battery (Shanghai) Co., Ltd.	Dry battery	CCCI	02104E10144R2M	1998 APR
	Panasonic Plasma Display (Shanghai) Co., Ltd.	TV	CQC	0104E10848ROL/ 3100	2004 MAY
	Panasonic Home Appliances Microwave Oven (Shanghai) Co., Ltd.	Microwave oven	CCCI	01-1998-048	1998 JUN
	Panasonic Electric Works (Shanghai) Co., Ltd.	Bath tub, Dressing counter	BSi	EMS69083	2002 AUG
	Panasonic Electric Works Automation Controls (Shanghai) Co., Ltd.	Programable logic controller, Inverter	LRQA	QAC0052015	2001 JAN
	Panasonic Electric Works Ikeda (Shanghai) Co., Ltd.	Lighting device, Breaker	CQC	0106E20709R1M/3100	2004 MAR
	Panasonic Electric Works Electronic Materials (Shanghai) Co., Ltd.	Chemical materials, Sealants	LRQA	QAC0031028/A	2004 DEC
	Panasonic Electric Works Information Equipment (Shanghai) Co., Ltd.	Switch, Socket, Circuit breaker	LRQA	QAC0052015	2005 DEC
	Panasonic System Solutions Suzhou Co., Ltd.	LL system, Security camera	SGS	CH05/0095	1998 OCT
	Panasonic Semiconductor (Suzhou) Co., Ltd.	Semiconductor	CEPREI	01206E10055ROM	2004 DEC
	Suzhou Toyodenpa Electronic Co., Ltd.	Micro component, Metal component	SAC	00306E10053R1M	2003 MAY
	Panasonic Factory Solutions Suzhou Co.,Ltd.	Electronic component mounting、and peripherals	ＬＲＱＡ	QAC0051044	2005 JUN
	Panasonic Electric Works (Suzhou) Co., Ltd.	Copper clad laminate, Printed wiring board	CCEMS	01-1998-071	1998 DEC
	SUZHOU SUNX Limited	Photoelectric sensor, Proximity sensor	CQC	0105E10379ROM/ 3200	2005 NOV
	Panasonic AVC Networks Xiamen Co., Ltd.	Digital still camera, Radio, Radio and cassette player, Personal headphone stereo	CQC	0105Q1444ROL/3502	1997 DEC
	Panasonic Manufacturing (Xiamen) Co., Ltd.	Electronic component, monitor, motor, Car audio equipment	CQC	0105E20195ROL/3502	2005 MAY
	Panasonic Electric Works Automation Controls (Xiamen) Co., Ltd.	Relay, Socket, Micro switch	CCIC	04005E10387ROM	2005 DEC
	Panasonic Wanbao Home Appliances Electric Iron (Guangzhou) Co., Ltd.	Electric iron	GACC	00705E20105R1M	1998 DEC
	Panasonic Home Appliances Air-Conditioning (Guangzhou) Co., Ltd.	Air conditioner	CCCI	02104E10184R21	1998 AUG
	Panasonic Wanbao Compressor (Guangzhou) Co., Ltd.	Compressor for air conditioners	CCCI	02104E10220R2L	1998 AUG
	Panasonic Electric Works Electronic Materials (Guangzhou) Co., Ltd	Copper clad laminate	BVQi	100655	2001 NOV
	Panasonic Electric Works Wanbao (Guangzhou) Co., Ltd.	Home appliance	EPREI	01205E10646R2M	1999 OCT
	Panasonic Ecology Systems Guandong Co., Ltd.	Ventilation fan, Kitchen-hood, Ceiling fan	CCCI	034R2	1998 SEP
	Panasonic Ecology Systems Guangdong Co., Ltd., Beijing Plant	Air-handling unit, Fan coil unit	CCCI	414R2	1998 NOV
	Panasonic Electronic Devices (Jiangmen) Co., Ltd.	Electronic device capacitor	CCCI	02105E10035R2M	1998 DEC
	Panasonic Battery (Zhuhai) Co., Ltd.	Exterior case for lithium ion battery	CCCI	432R2	1998 SEP
	Panasonic Motor (Hangzhou) Co., Ltd.	AV/OA motor	SGS	GB05/64450	1998 OCT
	Panasonic Communications Zhuhai Co., Ltd.	Cordless phone, Door phone, Photo-printer	CQC	0106E20702ROM/4404	2004 MAR
	Ohms Electronics (Shenzhen) Co., Ltd.	Wiring device, Intercom	SSCC	061-03-E1-0023-R1-M	1998 DEC
	Panasonic Taiwan Co., Ltd.	TV, VTR, Air conditioner, refrigerator	LRQA	TWN0771708	1997 MAY
	Panasonic AVC Networks Taiwan Co., Ltd.	Personal computer	LRQA	TWN0771709	1997 APR
	Panasonic Battery Taiwan Co., Ltd.	Dry battery carbon rod, Gouging carbon, Exterior case for lithium ion battery	TUV	04104 063	1998 JUL
	Panasonic Electric Works (Electrical Construction Materials) Taiwan Co., Ltd.	Wiring device, Lighting fixture	BSMI	4A6E002-03	1999 MAY
	Panasonic Electric Works Electronic Materials Taiwan Co., Ltd.	Copper clad laminate, Prepreg	SGS	ETW00061	1998 DEC

Type	Domain/Affiliated Company Sites	Major Products, Business Fields	Certification Organizations	Certification Number	Date of Registration
Outside Japan (Non-manufacturing)	Panasonic Corporation of North America	Regional headquarters in North America	UL	A8673	2000 APR
	Panasonic Corporation of North America Home Appliance Group	Designing and development of vacuum cleaners	DNV	CERT-02193-2005-AE-HOU-ANAB	1999 FEB
	Panasonic Electronic Device Europe GmbH	Sales of electronic components	TUV	31342301	1999 JAN
	Panasonic Asia Pacific Pte. Ltd.	Regional headquarters in Asia	TUV SUD PSB	99-0057	1999 MAY
	Panasonic Singapore Laboratories Pte. Ltd.	Research on AV signal processing	PSB	99-0052	1999 MAR
	Panasonic HA Air-Conditioning R&D (M) Sdn. Bhd.	Design and development of air conditioners	SIRIM	P06900001	1997 DEC
	Panasonic Malaysia Sdn. Bhd.	Sales of home appliances and system products	SIRIM	P06400001	2003 DEC
	Panasonic Siew Sales (Thailand) Co., Ltd.	Sales of AV, system, and other products	AJA	AJA99/1542	1999 SEP
	Panasonic A.P. Sales (Thailand) Co., Ltd.	Sales of electric and other products	AJA	AJA99/1543	1999 SEP
	PT. Panasonic Gobel Indonesia	Sales of home appliances and other products	LRQA	JKT 0500203	2004 MAY
	Panasonic Australia Pty. Ltd.	Sales of home appliances and system products	SGS	AU04/2019	2004 MAY
	Panasonic New Zealand Ltd.	Sales of home appliances and system products	TELARC	73	2004 MAR
	Panasonic Electronic Devices (Hong Kong) Co., Ltd.	Sales of electronic components	UL	A7150	1999 APR

History of Environmental Activities

(As of March 31, 2008)

Era	Matsushita Group	World	Japan
~1970s			1967 ·Basic Law for Environmental Pollution Control enacted
			1968 ·Air Pollution Control Law enacted
	1970 ·Pollution Survey Committee established		1970 ·Water Pollution Control Law enacted ·Waste Disposal and Public Cleansing Law enacted
			1971 ·Environment Agency established
	1972 ·Environmental Management Office established	1972 ·U.N. Conference on Human Environment held in Stockholm (Declaration of Human Environment adopted)	
		1973 ·First oil shock occurred	
	1975 ·Environmental Management Regulations enacted		
		1979 ·Second oil shock occurred	1979 ·Energy Conservation Law enacted
1980s		1985 ·Vienna Convention for the Protection of the Ozone Layer adopted	
		1987 ·Montreal Protocol on Substances that Deplete the Ozone Layer adopted ·World Commission on Environment and Development (the Brundtland Commission) advocated the concept of sustainable development	
	1988 ·CFC-reduction Committee established		1988 ·Ozone Layer Protection Law enacted
	1989 ·Environmental Protection Promotion Office established		
1990s	1991 ·Matsushita Environmental Charter (Environmental Statement and Code of Conduct) enacted ·Matsushita Product Assessment adopted and implemented		1991 ·Keidanren Global Environment Charter enacted by Japan Federation of Economic Organizations ·Law for Promotion of Effective Utilization of Resources enacted
	1992 ·Environmental Policy Committee established	1992 ·The Earth Summit held in Rio de Janeiro, Brazil: Agenda21 and Rio Declaration on Environment and Development adopted ·United Nations Framework Convention on Climate Change adopted	
	1993 ·Matsushita Environmental Voluntary Plan (Year 2000 targets) adopted ·Matsushita Group's global environmental internal audits launched		1993 ·The Basic Environment Law enacted
	1995 ·Acquired Environmental Management System Certification at AV Kadoma Site (first in the Matsushita Group)	1995 ·First Conference of Parties to the U.N. Framework Convention on Climate Change (COP1) held in Berlin	1995 ·Containers and Packaging Recycling Law enacted
		1996 ·ISO 14001 International Standard on Environmental Management Systems launched	
	1997 ·Corporate Environmental Affairs Division (CEAD) established ·Environmental Conference established (held semi-annually)	1997 ·COP3 held in Kyoto and adopted the Kyoto Protocol	1997 ·Keidanren Appeal on the Environment announced by Japan Federation of Economic Organization
	1998 ·Love the Earth Citizens' Campaign commenced ·Recycling Business Promotion Office established ·First environmental report (1997) published		1998 ·Home Appliance Recycling Law enacted (took effect in 2001) ·Law Concerning the Promotion of the Measures to Cope with Global Warming enacted ·Energy Conservation Law revised: Top Runner Approach introduced
	1999 ·Green Procurement launched ·Chemical Substances Management Rank Guidelines established ·Acquired ISO14001 Certification in all manufacturing business units		1999 ·PRTR (Pollutant Release and Transfer Register) Law enacted
2000s	2000 ·Lead-free Solder Project commenced ·Held first environmental exhibition for general public in Osaka	2000 ·Global Reporting Initiative (GRI) issued The Sustainability Reporting Guidelines	2000 ·Basic Law for Establishing the Recycling-based Society enacted ·Law for Promotion of Effective Utilization of Resources enacted
	2001 ·Environmental Vision and Green Plan 2010 adopted ·Held Environmental Forum in Tokyo and Freiburg,Germany ·Matsushita Eco Technology Center launched	2001 ·Reached final agreement on the actual rules of Kyoto Protocol in COP7 held in Marrakesh	2001 ·Reorganized into the Ministry of the Environment ·Law Concerning Special Measures against PCBs enacted
	2002 ·Panasonic Center Tokyo opened	2002 ·Johannesburg Summit (Rio+10) held	2002 ·Kyoto Protocol ratified ·Vehicle Recycling Law enacted ·Law for Countermeasures against Soil Pollution enacted
	2003 ·Declared 'Coexistence with the Global Environment' as one of the twin business visions ·Factor X advocated as an indicator for Creating Value for a New Lifestyle ·Completely introduced lead-free soldering globally ·Super GP Accreditation System launched ·Achieved zero waste emissions in Japanese manufacturing business sites (ongoing program) ·Held Environmental Forum in Tokyo	2003 ·EU's WEEE Directive was promulgated	
	2004 ·Environmental Vision and Green Plan 2010 revised ·PCB Management Office established ·Superior GP Accreditation System launched		2004 ·Prohibited manufacturing and use of products containing asbestos in principle
	2005 ·Participated in Expo 2005 Aichi, Japan as an official sponsor ·Green Plan 2010 revised ·Continued with the nationwide Lights-out Campaign ·3R Eco Project launched ·Completed the elimination of specified substances (6 substances)in products ·Matsushita Group's Green Logistics Policy established ·CF Accreditation System introduced ·Eco & Ud HOUSE opened ·Installed the first commercial household fuel cell cogeneration system in the new official residence of the Japanese Prime Minister ·Won the first place in Nikkei Environmental Management Survey	2005 ·Kyoto Protocol entered into force	2005 ·Expo 2005 Aichi, Japan held ·National campaign against global warming "Team-6%" launched ·Marking for the presence of the specified chemical substances for electrical and electronic equipment (J-Moss) established
	2006 ·Environmental specialist position established ·ET Manifest introduced into all Panasonic's manufacturing sites in Japan ·Expanded the scope of CF Accreditation System globally ·Realized lead-free plasma display panels and introduced them to the market ·Full-fledge introduction of biodiesel fuel in logistics	2006 ·Management Methods for Controlling Pollution by Electronic Information Products (Chinese version of RoHS) enacted ·Restriction of Hazardous Substances (RoHS) Directive took effect in EU	2006 ·Relief Law for Asbestos Victims enacted ·Energy Conservation Law revised: new cargo owner obligations, widened product scope of its application, and top runner standard revision
	2007 ·Energy conservation activities at our factories in Malaysia approved as CDM project by the U.N. ·A new environmental mark introduced ·Panasonic Center Beijing opened ·Environmentak Forum in China held ·"Declaration of Becoming an Environmentally Contributing Compnay in China" announced ·Panasonic 'eco ideas' Strategy announced	2007 ·The Fourth Assessment Report of the Intergovernment Panel on Climate Change (IPCC) released ·Registration, Evaluation, Authorisation and Restriction of Chemicals entered into force in EU ·Framework for CO_2 reduction agreed at Heiligendamm Summit (G8) ·The Bali Road Map for the post Kyoto Protocol agreed at COP13	
		2008 ·G20 (conference of key countries' environmental and energy ministers) held	

Information Disclosure on the Internet

▶ Panasonic

panasonic.net/

▶ IR

ir-site.panasonic.com/

▶ Corporate Social Responsibility (CSR)

panasonic.net/csr/

▶ Environmental Activity

panasonic.net/eco/

▶ Corporate Citizenship

panasonic.net/citizenship/

Reports of Panasonic

▶ Annual Report
(Download)

ir-site.panasonic.com/library/

▶ The Panasonic Report for Sustainability
(Download)

panasonic.net/csr/reports/

▶ Corporate Citizenship Activity Report
(Download)

panasonic.net/csr/reports/

▶ Environmental Data Book 2008
(Download)

panasonic.net/eco/rpt/

▶ Environmental Data File

▶ Domains' and Manufacturing Sites'
Environmental Reports

panasonic.net/eco/data/

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- This report is printed in an environmentally-conscious manner by implementing verification of raw materials, using recyclable materials and harmful-substance-free ink and adopting waterless printing with no toxic runoff, based on Panasonic's Green Purchasing Guidelines for Paper and Printed Matters.
- This report is printed on FSC certified paper, which comes from forests that are managed appropriately from the environmental, social and economic aspects.

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Panasonic

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Mixed Sources

FSC

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Correction

In Environmental Data Book 2008, there is a typographical error as shown below.

List 'ISO 14001 Certification Site' on Page 70, Line 34

Error	Correction
Panasonic Motor（Hangzhou）Co, Ltd.	Panasonic Motor （Zhuhai）Co, Ltd.