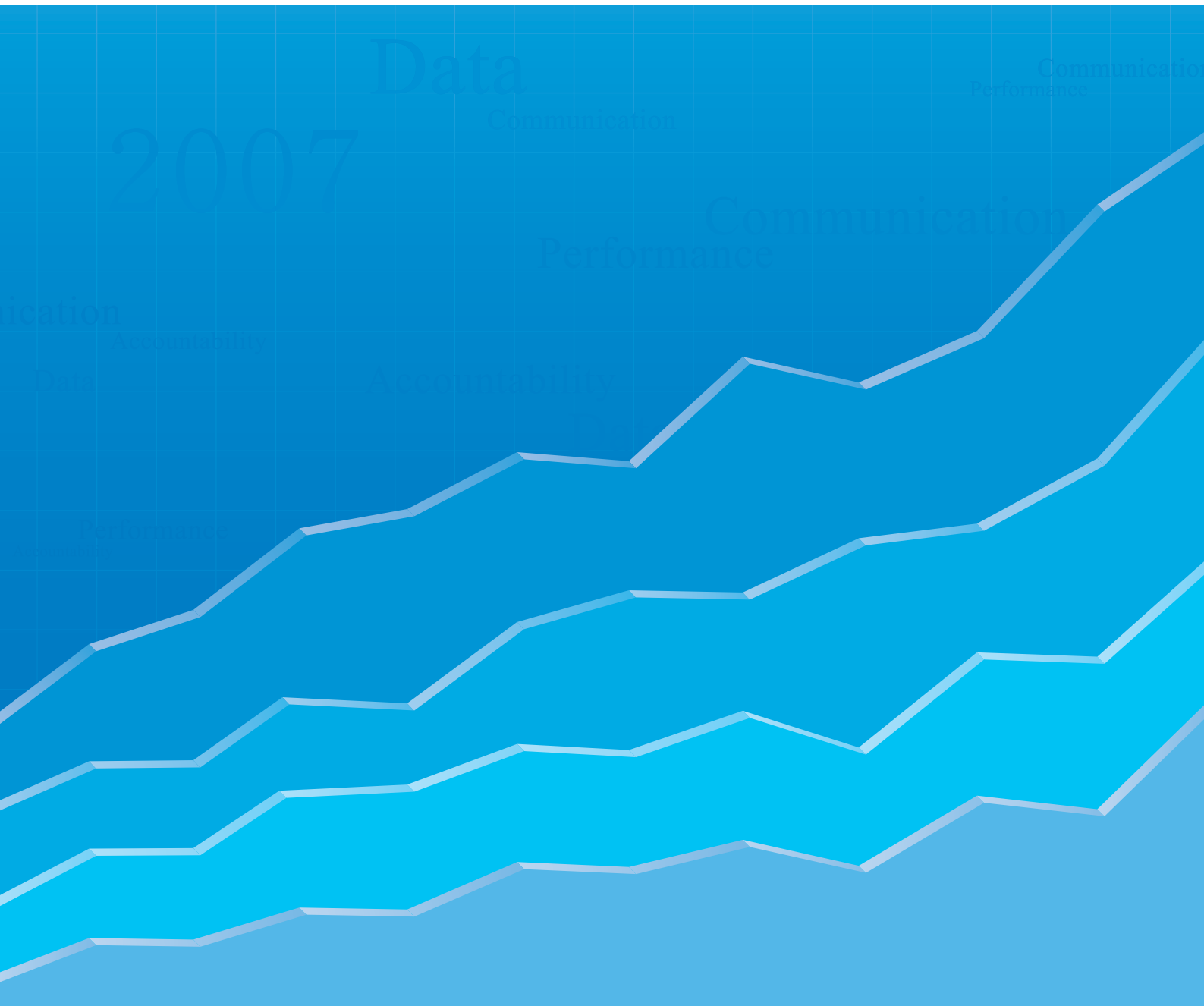


Environmental Data Book 2007

Matsushita Group



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

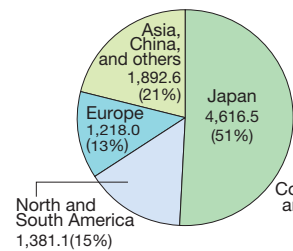
Representative: Fumio Ohtsubo, President

Capital: JPY 258.7 billion

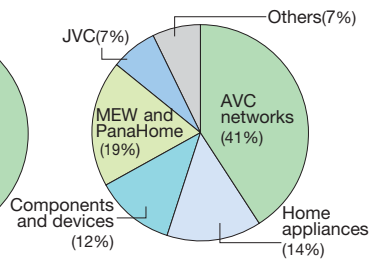
 **Panasonic website:** panasonic.net/



● **Sales by region (fiscal 2007)**
(billions of yen)

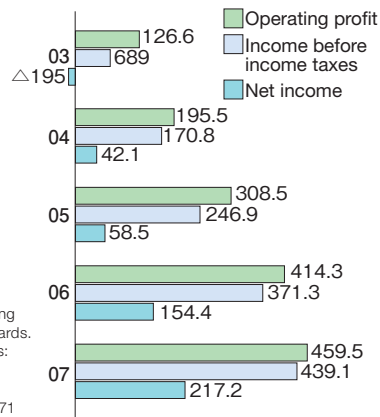


● **Sales by business segment (fiscal 2007)**



Profit (Loss)

(billions of yen)



* Panasonic's consolidated accounting conforms to U.S. accounting standards.

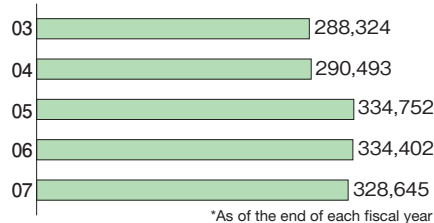
* Number of consolidated companies: 653 (parent companies and consolidated subsidiaries)

* Number of associated companies: 71

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

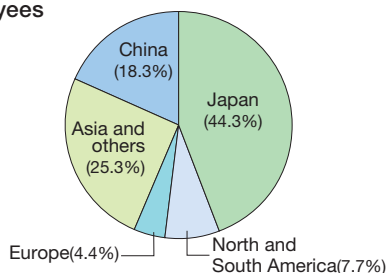
Number of employees

(persons)



*As of the end of each fiscal year

● **Number of employees by region (as of the end of fiscal 2007)**



Main products

There are six main product areas: **AVC networks; home appliances; components and devices; MEW and PanaHome; JVC; 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 furnishing 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.

JVC

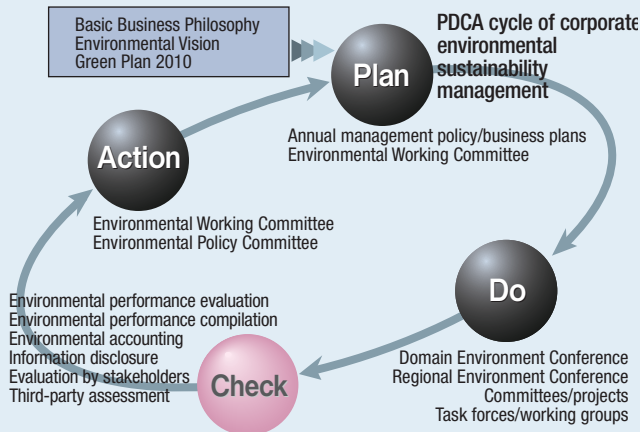
LCD, rear projection, plasma and CRT TVs, VCRs, camcorders, DVD recorders/players, CD/DVD/MD audio systems and other audio equipment, car AV equipment, business-use AV systems, motors and other components for precision equipment, recordable media, AV software for DVD, CD and video tapes, AV furniture, etc.

Others

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

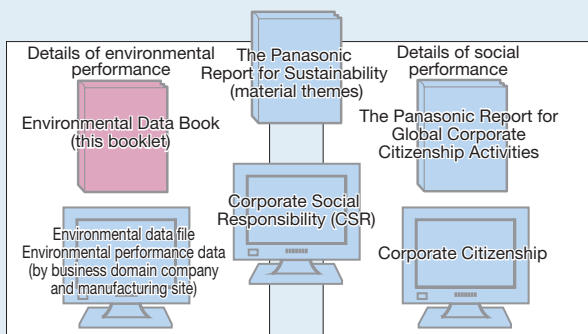
Publication objective and editorial policy

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 Sustainability Report. 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 solicit stakeholders' evaluation and feedback to step up our efforts for the Action phase. We value your frank opinions on this report.



Structure for CSR information disclosure

Information on Panasonic's corporate social responsibility (CSR) activities is reported annually within the following structure. We prepare the Environmental Data Book to comprehensively disclose environmental performance data with regard to our overall business operations, in addition to material information provided in The Panasonic Report for Sustainability. All information covered in the two reports is also available on our website. Environmental Performance Data is also available on our website and provides a detailed report on each business domain company and manufacturing site.



For the URLs of these web pages, see [P.66](#)

Scope of this report and conventions used

Reporting period: Fiscal year 2007 (April 1, 2006 - March 31, 2007)
The abbreviated year indication in graphs means the fiscal year (April 1 - March 31).

Organization covered: Panasonic (Matsushita Electric Industrial Co., Ltd.) and its group subsidiaries inside and outside Japan globally (called "the Group" in this report).

Data covered: All manufacturing sites (including some non-manufacturing sites) that have established environmental management systems [P.61~64](#). Sales prior to fiscal 2004 used for the basic unit include sales by MEW and PanaHome and exclude sales within the Group.

* Where there are no indications of fiscal year or region in the performance data, results are for fiscal 2007 (on a global basis).

* [P.00](#) in the text indicates a related page.

* indicates the website address where further information is available.

Contents

Towards Coexistence with the Global Environment	03,04
Performance Highlights 2007	05,06
Green Plan 2010: Environmental Action Plan	07,08
The Group and the Global Environment	09,10
Creating Value for a New Lifestyle	11,12
Environmental Accounting	13,14

Green Products

Environmentally-conscious Products	15,16
Energy-conservation in Products	17
Resource Conservation in Products	18
Reducing Chemical Substances	19,20
Super GP 2006 and Superior GP 2006	21-23
Packaging Materials	24

Clean Factories

Environmentally-conscious Factories	25,26
Factory Energy Conservation	27,28
Chemical Substances Management at Factories	29,30
Reducing Waste from Factories	31
Effective Use of Water Resources	32
Management of Factory Environment	33
Initiatives for Environmentally-conscious offices	34
Initiatives for Clean Factories	35,36

Product Recycling

Recycling Waste Electronic Products	37,38
-------------------------------------	-------

Environment and Energy Business

Environment and Energy Business	39,40
---------------------------------	-------

Green Marketing and Logistics

Green Marketing	41
Repairs and Servicing	42
Green Logistics	43,44

Environmental Communication

Sharing of Environmental Information	45-48
Social Contribution and Environmental Awareness	49-52

Environmental Sustainability Management and Human Resources

Environmental Governance	53-55
Environmental Education	56

Environmental Risk Management

Management of Soil and Groundwater	57
Initiatives to Address PCB Pollution	58

Partnership with an International NGO, the Natural Step	59
---	----

Independent Review Report	60
---------------------------	----

ISO 14001 Certification Sites	61-64
-------------------------------	-------

History of Environmental Activities	65
-------------------------------------	----

Access to Additional Information	66
----------------------------------	----



The J-AOEI imprint indicates that the environmental information contained in the Environmental Data Book 2007 satisfies the applicable provision of the code of the Japanese Association of Assurance Organizations for Environmental Information

Reference guidelines

- The Japanese Ministry of the Environment's Environmental Reporting Guidelines 2003
- The Global Reporting Initiative (GRI)'s Sustainability Reporting Guidelines 2006

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

Towards Coexistence with the Global Environment



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

In 2007, the Intergovernmental Panel on Climate Change (IPCC) published its Fourth Assessment Report, six years after the publication of its Third Assessment Report. According to the report, there is a 90% certainty that greenhouse gases emitted from human activities have caused global warming since the middle of the 20th century and that the global average temperature will rise by up to 6.4 degrees centigrade and the sea level by up to 59 cm by the end of the 21st century, if no measures to reverse this trend are implemented.

The Group has adopted “coexistence with the global environment” as one of our visions for the 21st century, and we are continuing to promote environmental sustainability management based on our Green Plan 2010, a global environmental action plan that looks towards the year 2010. In particular, we are giving priority to the following three objectives set out in the plan: Creating Value for a New Lifestyle; making all our products Green Products; and making all our factories Clean Factories. To achieve these objectives, we have set out specific numerical targets and have been implementing measures to achieve them. In fiscal 2007, we were able to achieve our major numerical targets for the year. We will continue to strive towards the targets for fiscal 2011 with renewed commitment.

Creating Value for a New Lifestyle for each household

We are endeavoring to help global customers improve their quality of life through our products under the maxim of “Creating Value for a New Lifestyle,” while at the same time minimizing the environmental impact of our products. We developed the Factor for One Household to assess the contribution of our products to the prevention of global warming and the effective utilization of resources. We aim to realize a GHG Factor 5 for one household by fiscal 2011.

In fiscal 2007, the GHG Factor was 2.8 and we were able to achieve our fiscal target for this important indicator. Last year, we opened our Eco & Ud HOUSE to provide general consumers with an opportunity to experience the lifestyle we propose for 2010, including home appliances and housing design. More than 23,000 people visited the house. We intend to incorporate the opinions offered by visitors into our future development of new products.

Making all our products Green Products

Most of the environmental impact from electronics manufacturers is related to their products. Recognizing this fact, as early as 1991 we launched our first Product Environmental Assessment system to evaluate the environmental impact of our products—from their planning and design phases—and we have been conducting life cycle assessments of our products under this system ever since. Based on the three criteria for prevention of global warming, effective utilization of resources, and non-use of chemical substances, we assess our products and accredit those with higher environmental performance as Green Products. We

calculate the Green Product (GP) Development Rate as the value of Green Products shipped as a percentage of the total value of all shipments from factories of products developed in the fiscal year. We aim to achieve a 90% or higher GP Development Rate by fiscal 2011.

In fiscal 2007, the GP Development Rate was 96%, far exceeding our target of 74%. Also in terms of energy conservation, the number of models meeting the criteria, which are now stricter than those set last year, has increased year on year. In this fiscal year, our products and technologies won glowing appreciation from outside the company. For example, our tilted-drum washer/dryer received a prize from the Minister of Economy, Trade and Industry at the Eco Products Awards, and our vacuum insulation "U-Vacua" also won a prize from the Minister at the Energy Saving Grand Prix. We will continue to improve the environmental performance of our products by continuing to set ever stricter criteria for Green Products.

Making all our factories Clean Factories

The Group has a total of 319 manufacturing factories throughout the world. We are implementing measures to reduce the environmental impact of these factories and to make all of them Clean Factories (CF).

In fiscal 2006, we introduced the CF Accreditation System to encourage all our factories to further improve their environmental performance. Under this system, we quantify the measures that the factories are implementing based on ISO 14001 environmental management systems to reduce their environmental impact in relation to energy conservation, reduction in the generation of waste (including revenue-generating waste), control over the release and transfer of chemical substances, and efficient use of water resources. Evaluating these quantified criteria, we give CF Accreditation to qualifying factories. We calculate the Clean Factory (CF) Accreditation Rate as the percentage of accredited Clean Factories within the total number of our factories. We aim to attain a 90% or higher CF Accreditation Rate globally by fiscal 2011. In 2007, we expanded the scope of accreditation to include our factories outside Japan and achieved a 78% CF Accreditation Rate, far exceeding the global target of 58%.

The first commitment period set forth in the Kyoto Protocol will start in 2008, and we are required to implement more anti-global warming measures as early as possible. The CO₂ emissions from the Group amounted to 4.13 million tons in fiscal 2007, remaining at the same level since fiscal 2004. We will make steady efforts to further reduce our CO₂ emissions.

Introducing a new environmental mark: "eco ideas"

As a symbol to represent our commitment to environmental protection, we have introduced a new and unique environmental mark, "eco ideas," in April 2007. The "eco ideas" symbol represents our dedication to Creating Value for a New Lifestyle for the provision of environmentally-conscious products that help people improve their quality of life. As a means to highlight the environmental performance of our products through labeling in an easy-to-understand manner, we will use this environmental mark on a global basis. Through these efforts, we hope to further contribute to the reduction of the environmental impact of both our factories and general households.



"Eco ideas" Station (Shinagawa Station, Tokyo)

Devotion to environmental contribution in China

According to recent newspaper reports, greenhouse gas emissions in China may exceed those in the United States as early as fiscal 2008, and so it is essential that anti-global warming measures be implemented in China. Also, it is said that China is emitting the largest amount of sulfur dioxide (air pollutant) in the world, that more than one-tenth of its farmland is contaminated by organics and heavy metals, and that 300 million people drink water that might not be completely safe.

In fiscal 2008, the Group plans to start implementing comprehensive environmental measures in China, which is suffering from some of the most serious environmental problems in the world. Specifically, we will launch the China Eco-Project, a three-year environmental project in the country, in which we will make concerted efforts adopting the following four approaches: Green Products, Clean Factories, Social Contribution, and Environmental Appeal.

By implementing this project in China based on the philosophy and experience that we have established and gained in environmental sustainability management in Japan, we will further our global environmental sustainability management.

Performance Highlights in Fiscal 2007

Creating Value for a New Lifestyle P11-12

GHG Factor for One Household*: 2.8 (target: 2.8)

* For all appliances and facilities used in an average Japanese household (approximately 90 products)

Resource Factor for One Household: 1.6 (target: 1.9)

Refurbishing Eco & Ud HOUSE



Eco & Ud HOUSE

Green Products (GPs) P15-24

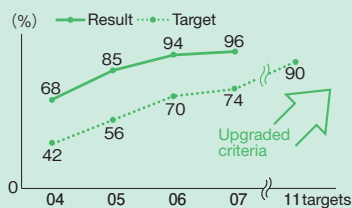
Our plasma TV equipped with a lead-free plasma display panel was accredited as a Super GP.



Plasma TV

66 models were accredited as Superior GPs.

GP Development Rate*: 96% (target: 74% or higher)



* Percentage of GPs in the value of total shipments from factories of products developed in the fiscal year

The tilted-drum washer/dryer NA-VR1100 won a prize from the Minister of Economy, Trade and Industry at the Eco Products Awards and a prize from the Director-General of the Agency for Natural Resources and Energy at the Energy-Saving Grand Prix.



NA-VR1100



Substitution of 616 tons of specified polyvinyl chloride resin

Clean Factories (CFs) P25-36

The plant of PanaHome Corporation and Panasonic Wanbao Compressor (Guangzhou) Co., Ltd. were accredited as Superior CFs.

CF Accreditation Rate*: 78% (target: 58% or higher)

* Sites are given scores based on their environmental impact reduction results. The CF Accreditation Rate represents the percentage of those exceeding the baseline score.

CO₂ emissions

- **Basic unit*: Reduced by 24% compared with fiscal 2001 (target: 6% reduction)**
- **Emissions: 4.13 million tons (reduced by 40,000 tons compared with the previous fiscal year)**

* CO₂ emissions/(Consolidated sales/Bank of Japan's corporate goods price index [electrical equipment]).

Energy conservation rate*

- **Product-assembly segment: 5.0% (target: 3.5%)**
- **Components and devices segment: 6.8% (target: 7%)**

* Reduction in energy consumption (CO₂ conversion) attributable to energy conservation measures for the current fiscal year/Gross energy consumption (CO₂ conversion) in the previous fiscal year.

The United Nations approved the CDM* project for energy-conservation activities to be implemented in the plants in Malaysia. (March 2007)



* Under the clean development mechanism (CDM), industrialised countries provide financial and technological support to developing countries with the aim of reducing greenhouse gas emissions in developing countries.

As for chemical substances, the release and transfer of Key Reduction-target Substances increased by 0.9% compared with fiscal 2006 against the target of a 2% reduction.

Total waste arisings

- **Basic unit*:¹ reduced by 33% compared with fiscal 2001 (target: 12% reduction)**
- **Continuous achievement of zero waste emissions*²**

*¹ Waste generation/(Consolidated sales/Bank of Japan's corporate goods price index [electrical equipment]).

*² A recycling rate of at least 99% (mass of recycled resources/[mass of recycled resources + mass of final disposal]) since fiscal 2006.

All Panasonic manufacturing sites in Japan (92 factories) introduced the ET Manifest.

Water consumption per basic unit*: Reduced by 38% compared with fiscal 2001 (target: 6% reduction)

* Water consumption/(Consolidated sales/Bank of Japan's corporate goods price index [electrical equipment])

Product Recycling

P37-38

Recycling of 2,220,000 units of home appliances* in Japan

* Air conditioners, TVs, refrigerators, and washing machines are included.

Environment and Energy Business

P39-40



Delivery of super-large painting facilities incorporating VOC removal technology

Approximately 200 fuel cells were in operation for household use (as of end of March 2007)



Green Marketing and Logistics

P41-44

Introduction of a new environmental mark "eco ideas"



The Panasonic Group leads the way...with Eco Ideas



Number of containers used for railroad transportation in Japan: 16,106

Panasonic Mobile Communications Co., Ltd. became the first company to be authorized to use the Eco Rail Mark* in the mobile phone industry.



* The use of the Eco Rail Mark is approved for companies that transport at least 30% of their products (in quantity) by rail for transportation over distance of 500 km or longer. The mark indicates that the company is actively using rail transportation.

Expanding use of biodiesel—a biofuel* made from cooking oil waste from employee canteens to include the Keihanshin area



* Biofuel: Fuel produced from biological materials

Environmental Communication

P45-52

Commendations for environmental advertisements

Panasonic's advertisements won several prizes at prestigious advertising awards in Japan, including a prize from the Minister of Economy, Trade and Industry.



Neon and electric signboards were turned off at 8:00 p.m. at 206 business sites in Japan



Lights turned off at Panasonic Center Tokyo

Dialogue with Natural Step, an international NGO (on a continuing basis from fiscal 2002)



Accreditation of 11 people under the LE Expert Accreditation System

Environmental Sustainability Management and Human Resources

P53-56

Organization of a meeting of the Global Environmental Working Committee and provision of Professional Seminars for Environment Specialists, in which a total of 222 people participated



Environmental Risk Management

P57-58

Decontamination of 131 out of 2,132 PCB-filled transformers and condensers weighing 10 kg or more.

External Evaluation

P52

Ranked No. 7 in the environmental management survey conducted by Nikkei Inc. Listed in the Dow Jones Sustainability Index for two consecutive years



Green Plan 2010: Environmental Action Plan

Promoting environmental sustainability management through Green Plan 2010

Green Plan 2010 is a specific environmental action plan that provides the direction for Panasonic to follow towards 2010. In this plan, we categorized our core targets into the following three groups: basic targets, to which we must give first priority in our environmental sustainability management; area targets, which should be tackled individually within their field; and management targets that require improvements in their management methods. We have also defined individual environmental performance indicators as environment performance targets, which support the above three target types. We regard these targets as highly important, and their use as the basis for monitoring our environmental performance has become a fundamental business requirement in our drive to reduce our environmental impact.

Fiscal 2007 summary of activities

●Creating value for a new lifestyle

Pursuing our concept of 'Creating Value for a New Lifestyle', means providing customers with products with less environmental impact that still contribute to the improvement of their quality of life. To this end, we developed our own unique indicator, "Factor X" to evaluate the environmental efficiency of our products. We aim to improve the GHG Factor for One Household to a factor of 5 in fiscal 2011.

●Green Products (GPs)

We set the environmental performance criteria for Green Products in terms of the prevention of global warming, the effective utilization of resources, and the management of chemical substances, and we accredit products and services that have demonstrated improved environmental performance against the criteria as GPs. We aim to increase the GP Development Rate (percentage of GPs in the value of total shipments from factories of products developed in the fiscal year) to at least 90% by fiscal 2011, while making the Green Product criteria stricter, year by year.

●Clean Factories (CFs)

We introduced the CF Accreditation System in fiscal 2006, and have been evaluating and accrediting the environmental impact reduction measures implemented by our factories under the system. We aim to improve the CF Accreditation Rate (percentage of CF-accredited factories in the total number of our factories) to at least 90% by fiscal 2011.

■Green Plan 2010 targets and actual results in fiscal 2007

Basic targets (global targets based on fiscal 2001 levels)

Items	Indicators	Targets for fiscal 2007	Results in fiscal 2007	Self-assessment	
Creating value for a new lifestyle	Factor for One Household*1	GHG Factor*2 (compared with fiscal 1991)	2.8	2.8	○
		Resource Factor*3 (compared with fiscal 1991)	1.9	1.6	△
Green Products	Green Product Development Rate*4	At least 74%	96%	○	
Clean Factories	Clean Factory Accreditation Rate*5	At least 58%	78%	○	

Area targets

Items	Results in fiscal 2007
Product recycling	●(in Japan) Recycling rates of four categories of home appliances increased by 14 points compared with fiscal 2002
Environment/energy business	●(in Japan) Approximately 200 household fuel cell cogeneration systems in operation
Green marketing and logistics	●Logistics: (in Japan) Rail freight delivery: 16,106 containers CO ₂ emissions reduction :7,626 tons ●Marketing: Trees planted and consumer education campaigns held under N's Eco Project

Management targets

Items	Results in fiscal 2007
Environmental communication	●Love the Earth (LE) families increased to 58% (Japan) ●Dialogues with stakeholders held 3 times.
Environmental sustainability management and human resources	●Meeting of the Global Environmental Management Committee held ●Environmental education system redesigned
Measures against environmental risks	●Total of 131 among 2,132 PCB-filled transformers and condensers weighing 10 kg or heavier, decontaminated

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

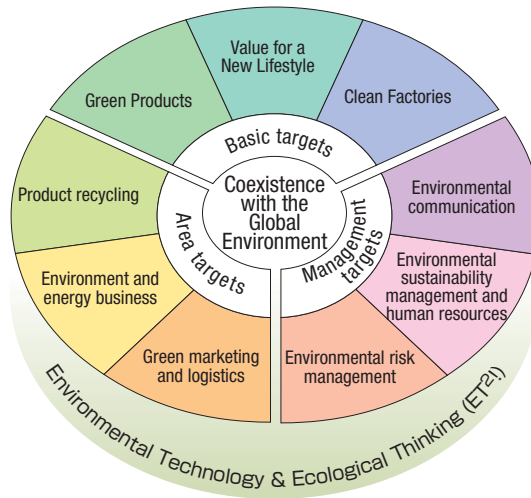
Items	Targets for fiscal 2007	Results in fiscal 2007	Self-assessment		
Prevention of global warming	Products	Estimation of CO ₂ emissions from products in use (target for fiscal 2011)	○		
	Factories	6% reduction in CO ₂ emissions per basic unit*6	Reduced by 24%	○	
	Logistics	(Baseline year)	—	—	
Reduction in release and transfer of chemical substances	Factories	2% reduction in release and transfer of Key Reduction-target Substances (relative to fiscal 2006)	Increased by 0.9%	×	
Recycling of resources	Factories	Waste	12% reduction in waste generation per basic unit*7	Reduced by 33%	○
		Water	6% reduction in water consumption per basic unit*8	Reduced by 38%	○

*1 Total of some 90 products and systems used throughout the household *2 GHG efficiency improvement rate (P.15) *3 Resource efficiency improvement rate (P.15) *4 Percentage of GPs in the value of total shipments from factories of products developed in the fiscal year *5 Percentage of factories achieving environmental impact reduction exceeding the baseline score in the total number of factories *6 CO₂ emissions/(Consolidated sales/Bank of Japan's corporate goods price index [electric machinery & equipment]) *7 Waste generation/(Consolidated sales/Bank of Japan's corporate good price index [electric machinery & equipment]) *8 Water consumption/(Consolidated sales/Bank of Japan's corporate good price index [electric machinery & equipment]) Self-assessment level: ○ = target achieved △ = achieved 80% or more × = achieved less than 80%

■ Environmental Vision

Panasonic contributes to “Coexistence with the Global Environment” through Environmental Technology and Ecological Thinking

- **Value for a New Lifestyle**
 - Reduce environmental impact through entire lifestyle
- **Green Products**
 - Make all our products “Green”
- **Product Recycling**
 - Expand product categories for recycling
- **Environment and energy business**
 - Make endeavors to develop sustainable energy such as fuel cells
- **Green marketing and Logistics**
 - Make commitment to conserve energy and resources



- **Clean Factories**
 - Strive to achieve Zero Emissions
 - Make all our factories “Clean”
 - Strive to develop environmentally-conscious manufacturing methods and systems
- **Environmental communication**
 - Use various means to communicate Panasonic’s environmental activities worldwide
 - Take up future challenges by collaborating with internal members and external parties
- **Environmental sustainability management and human resource**
 - Establish organizational structure to facilitate speedy and autonomous decision-making procedure
 - Establish indicators and evaluation systems for environmental sustainability management
 - Cultivate environmental awareness in employee
- **Environmental risk management**
 - Minimize the risk of chemical pollution

■ New Green Plan 2010 (global targets based on fiscal 2001 levels)

Basic Targets

Items	Indicators	Targets for fiscal 2011
Value for a New Lifestyle	Factor X for One Household (*1)	5
	GHG Factor (relative to fiscal 1991)	
	Resource Factor (relative to fiscal 1991)	3
Green Products	Green Product Development Rate	At least 90%
Clean Factories	Clean Factory Accreditation Rate	At least 90%

Area Targets

Items	Targets for fiscal 2011
Product recycling	● Establish recycling systems for all home appliance categories
Environment/energy business	● Promote widespread use of household fuel cells, etc.
Green marketing/logistics	● Promote more environmentally-conscious transportation methods: increase rail freight to 30,000 containers (in Japan)

Management Targets

Items	Targets for fiscal 2011
Environmental communication	● Increase “Love the Earth” families: to at least 80% of all employee households in Japan, etc.
Environmental sustainability-management and human resources	● Promote visualization of environmental sustainability management, etc.
Environmental risk management	● Remedy soil contaminated with PCB, VOCs and heavy metals, etc.

Environmental Performance Targets

Items	Targets for fiscal 2008	Targets for fiscal 2011		
Prevention of global warming	Products	Estimation of CO ₂ emissions from products in use		
	Factories	7% reduction in CO ₂ emissions per basic unit:*4	10% reduction in CO ₂ emissions per basic unit	
	Logistics	(in Japan) 4% reduction in CO ₂ emissions per basic unit (relative to fiscal 2007)		
Reduction in release and transfer of chemical substances	Products	Discontinuance of the use of polyvinyl chloride resins for internal wiring in new products (by fiscal 2009 in Japan and by fiscal 2011 globally)		
	Factories	4% reduction in release and transfer of Key Reduction-target Substances: (relative to fiscal 2006)	10% reduction in release and transfer of key reduction-target substances: (relative to fiscal 2006)	
Recycling of resources	Factories	Waste	14% reduction per basic unit of waste generation*5	20% reduction per basic unit of waste generation
		Water	7% reduction per basic unit of water consumption*6	10% reduction per basic unit of water consumption

Definitions of and criteria for the Green Product Development Rate and Clean Factory Accreditation Rate

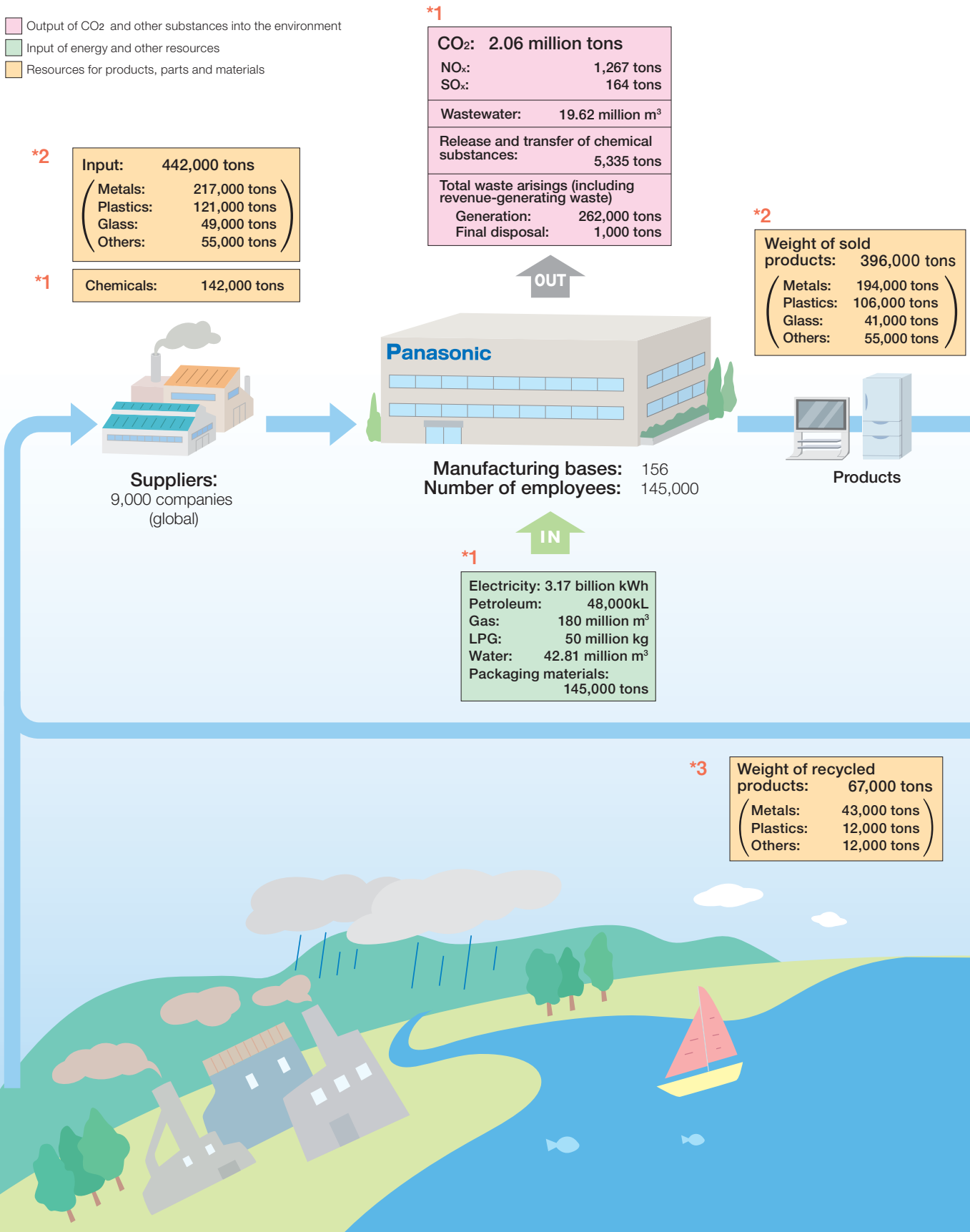
Indicator	Definition	Criteria for fiscal 2008	Criteria for fiscal 2011	
Green Product Development Rate	Percentage of GPs in the value of total shipments from factories of products developed in the fiscal year (See p. 16 for GP accreditation criteria.)	Each product	GHG factor: 1.58	GHG factor: 2.0
			Substitution of polyvinyl chloride resins	
		Each product	Resource factor: 1.58	Resource factor: 1.7
Clean Factory Accreditation Rate	Percentage of factories achieving the environmental impact reduction targets for CO ₂ emissions and waste and exceeding the baseline score in the total number of factories (See p. 25 for the CF Accreditation System.)	Each factory	Energy conservation rates*7 Product assembly segment: 3.5% (5% in China); Components and devices segment: 7%	Targets achieved in both the segments with 3.5% (5% in China) and 7%, respectively
		Each factory	2% reduction in release and transfer of Key Reduction-target Substances (relative to fiscal 2006)	10% reduction in release and transfer of Key Reduction-target Substances (relative to fiscal 2006)
		Each factory	2% reduction in waste generation*8	2% reduction in waste generation
		Each factory	2.5% reduction in water consumption*9	2.5% reduction in water consumption
		Each factory		

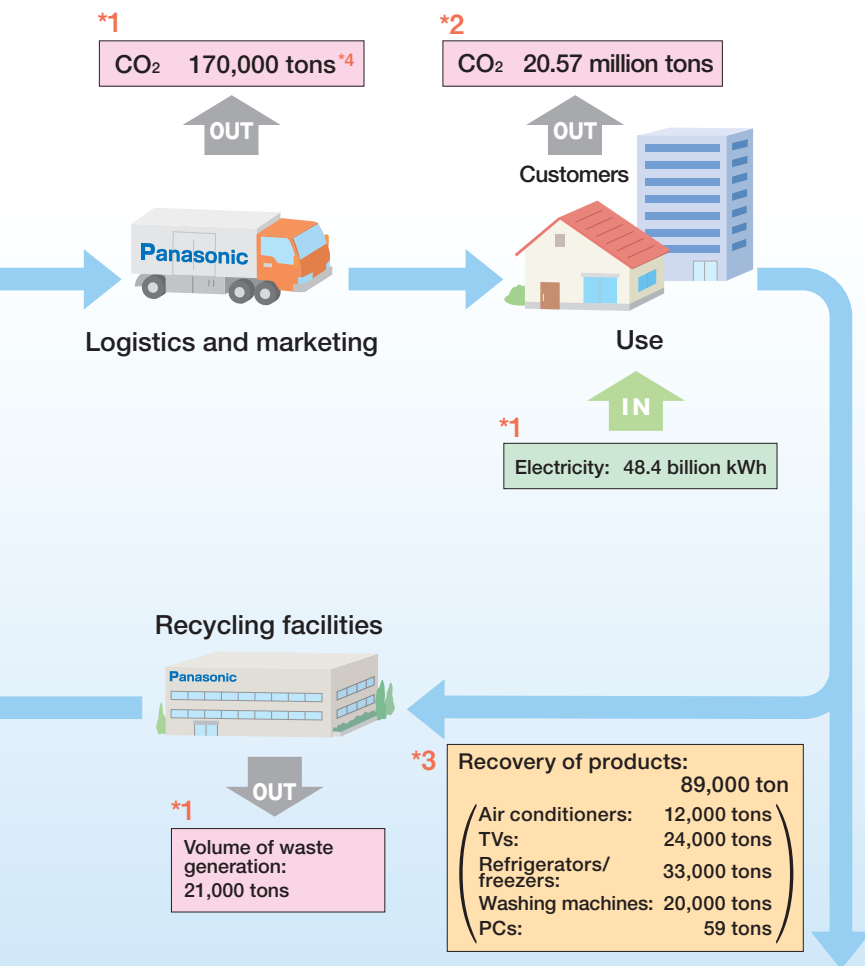
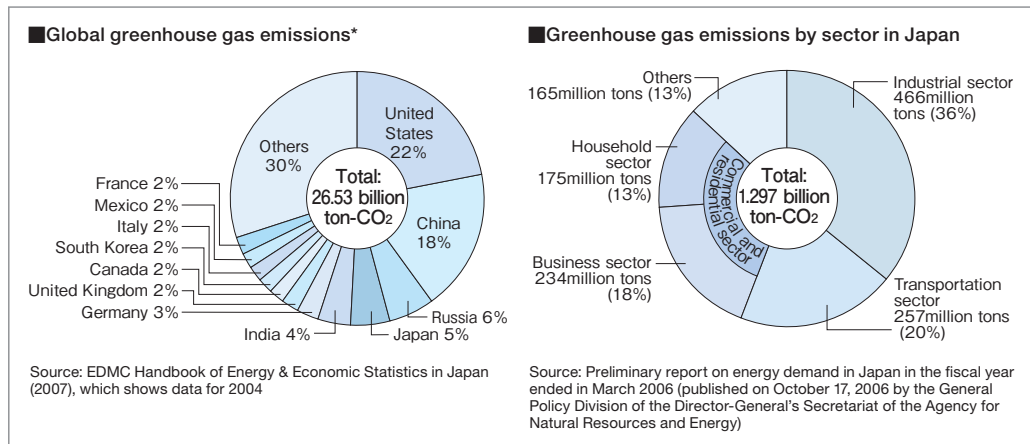
*1 Total of some 90 products and systems used throughout the household *2 GHG efficiency improvement rate (P.15) *3 Resource efficiency improvement rate (P.15)
 *4 CO₂ emissions/(Consolidated sales/Bank of Japan’s corporate goods price index [electric machinery & equipment]) *5 Waste generation/(Consolidated sales/Bank of Japan’s corporate good price index [electric machinery & equipment]) *6 Water consumption/(Consolidated sales/Bank of Japan’s corporate good price index [electric machinery & equipment]) *7 Energy conservation achieved by the fiscal year measures (converted to CO₂)/Energy consumption in the previous fiscal year (converted to CO₂) *8 Waste reduction achieved by the fiscal year measures/Waste generation in the previous fiscal year *9 Water consumption in the fiscal year/Water consumption in the previous fiscal year

The Group and the Global Environment

Environmental Impact of Panasonic's Business Operations (Japan)

As a producer of electrical and electronic products, we use a lot of resources to make our products, including those consumed in parts and materials; we consume petroleum and electricity as energy; we emit CO₂ and we generate waste. The following diagram maps the environmental impact of our business operations, from material procurement through to recycling activities.





● 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: CO₂ emissions associated with lifetime power consumption of target products. Lifetime power consumption is calculated based on the number of products sold, usage time, and service life (10 years); 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] CO₂: CO₂ emissions associated with the use of electricity, gas, LPG and petroleum; NO_x and Sox: emissions from business sites governed by legal regulations and ordinances; water: discharge to sewage and public water districts.

*1: 156 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

*4: Actual results in fiscal 2006

* The 30 products: new products released in fiscal 2007, which comprise plasma TVs, LCD TVs, CRT TVs, DVD recorders, SD stereo systems, fax machines, refrigerators, air conditioners, microwave ovens, IH cooking heaters, washer/dryers, fully-automatic washing machines, laundry dryers, rice cookers, dish washer/dryers, natural refrigerant (CO₂) 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 (no new products in fiscal 2007, only resource factor), home-use lighting equipment and hair dryers.

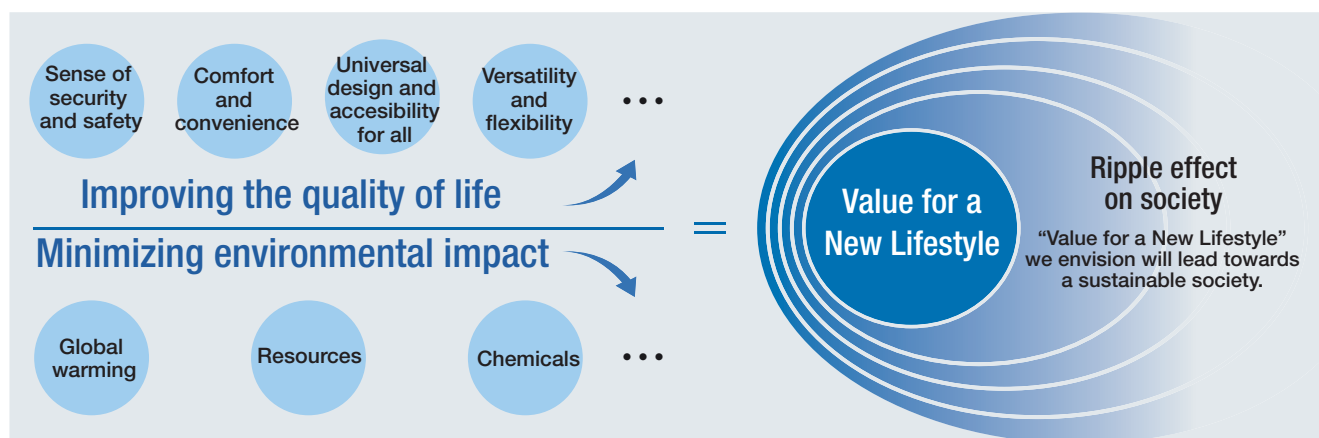


Creating Value for a New Lifestyle

For the global provision of products that bring better quality of life with less environmental impact

Based on the concept of environmental efficiency proposed at the 1992 Earth Summit, we are pursuing our concept of Creation of Value for a New Lifestyle, which means providing customers with products that bring better quality of life with less environmental impact in terms of greenhouse gas emissions, resource consumption, and contamination risks caused by chemical substances. The environmental efficiency improvement rate for each fiscal year (against the baseline year) is generally calculated as "Factor X," and we have developed our own unique Factors for both individual devices and for one household: the GHG Factor and the Resource Factor.

Philosophy on Creating Value for a New Lifestyle



In November 2006, five home appliance producers, including Panasonic, established standard guidelines on how to highlight their products' environmental performance to customers, especially when replacing old products. Alongside other matters, the guidelines explain the Factor X calculation for four product groups*.

* Air conditioners, refrigerators, lamps, and lighting equipment

Environmental efficiency

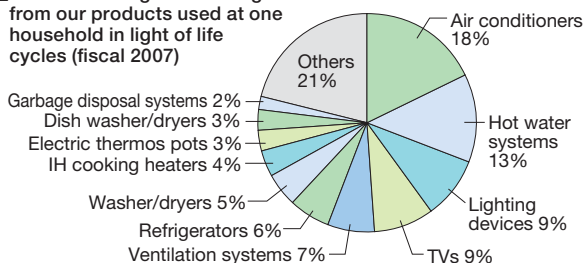
GHG Factor	Product function x Product life
	Greenhouse gas emissions over the entire life cycle
Resource Factor	Product function x Product life
	non-circulating resources over the entire life cycle

* Factor X = (Environmental efficiency of the product to be evaluated) / (the environmental efficiency of a benchmark product)

Factors for One Household

Whilst we have made improvements in the Factor figures for each product, the number and size of products used at one household have both been increasing. As we are mainly engaged in the home appliance industry, we therefore believe it is important to evaluate the GHG and Resource Factors for One Household, targeting some 90 appliances or items of equipment commonly used in households.

Breakdown of greenhouse gas emissions from our products used at one household in light of life cycles (fiscal 2007)



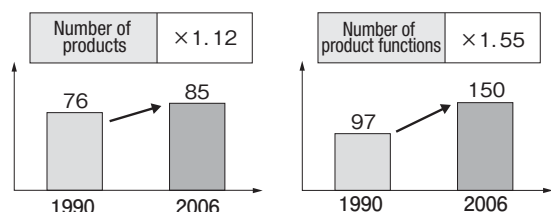
Breakdown of greenhouse gas emissions calculated and evaluated based on a sample household used in calculating Factor for One Household

Sample household	
● Family and house	We assumed a four-member, three-generation household with grandmother (70), father (40), mother (37) and daughter (6). The family live in a two-story house with 4 rooms and a living-dinning room, with total floor area of 136.9 m ² , the national average in Japan.
● Products comprising the house	Fiscal 1991: The latest models that we produced and marketed at that time in consideration of market penetration Fiscal 2007: The Latest products recommended by Panasonic in consideration of market penetration and changes in lifestyles (increase in the number and size of products used at a household)

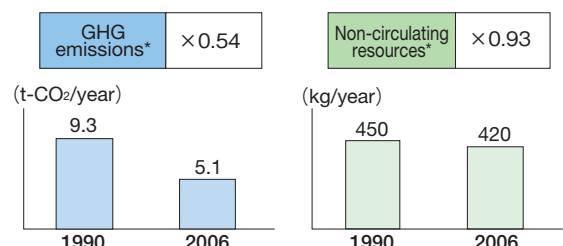
Factors for One Household (based on fiscal 1991 products)

	Targets for fiscal 2011	Actual results for fiscal 2007
GHG Factor	5	Quality of life x 1.55
		Environmental impact x 0.54
Resource Factor	3	Quality of life x 1.55
		Environmental impact x 0.93

Quality of Life



Environmental impact (product lifecycle)



*CO₂ emissions at the manufacturing, transportation, use, recycling, and disposal stages

*Newly input resources + discarded resources

Evaluation of Green Products Based on GHG and Resource Factors (Compared with Fiscal 2001 Products)

<p>Plasma TVs</p>  <p>Released 2000 TH-37PM2/S</p> <p>GHG Factor: 3.4</p>  <p>Released 2006 TH-37PX600</p> <p>Resource Factor: 2.4</p> <p>Improved user friendliness in terms of remote control operability, connection, and installation</p> <p>Energy conservation Improved efficiency of light emitting panels (fluorescent substances) Light control appropriate for visual signals</p> <p>Resource conservation Improved power supply system Large-scale integrated (LSI) drive control circuits (PEAKS, etc.) Thinner glass panel Integration as a single unit</p>	<p>Refrigerators</p>  <p>Released 2000 NR-E54M2</p> <p>GHG Factor: 2.0</p>  <p>Released 2006 NR-F531T</p> <p>Resource Factor: 1.4</p> <p>Capacity of 525 liters achieved for the same size as a conventional 450 liters model</p> <p>Energy conservation Improvement in insulation performance by 20% using the new vacuum insulation U-Vacua</p> <p>Resource conservation Simplification of the air trunk composition Reduction in the number of parts Use of recycled resin in unit materials</p>  <p>U-Vacua</p>	<p>Drum-type washer/dryers</p>  <p>Released 2000 NA-SK60</p> <p>GHG Factor: 3.7</p>  <p>Released 2006 NA-VR1100</p> <p>Resource Factor: 2.3</p> <p>Washing capacity increased by 1.5 times (to 9 kg) Drying capacity increased by 2 times (to 6 kg) Improved usability through tilted drum design</p> <p>Energy conservation Reduced electricity consumption in drying due to improvements in circulation fan operation</p> <p>Resource conservation Reduced size of heat pumps Reduction in the weight of circulation fans Reduction of balance weight through improved vibration control during spin cycle Use of recycled resin in the lower frame</p>
<p>Lighting equipment</p>  <p>Released 2000 FA42038241</p> <p>GHG Factor: 3.1</p>  <p>Released 2006 FSS42060FPX9</p> <p>1.65 times brighter (9,900 lumen)</p> <p>Resource Factor: 2.1</p> <p>Energy conservation Automatic light control Initial brightness coordination technology</p> <p>Resource conservation Wireless light control Reduction in equipment weight by approx. 45%</p>	<p>Lamps</p>  <p>Incandescent lamp LW100V54W released in 2000</p> <p>GHG Factor: 5.4</p>  <p>Fluorescent lamp EF-A15EL/10H released in 2006</p> <p>Resource Factor: 4.5</p> <p>Life extended by 10 times with the same brightness (to 10,000 hours)</p> <p>Energy conservation Electricity consumption reduced to one-fifth for fluorescent lamps with the same brightness as that of incandescent lamps</p> <p>Resource conservation Reduction of waste due to longer life (frequency of replacement reduced to one-tenth)</p>	<p>Door phones</p>  <p>Released 2000 VL-SW102K</p> <p>GHG Factor: 2.1</p>  <p>Released 2006 VL-SW150K</p> <p>Resource Factor: 1.4</p> <p>Improved screen visibility Backlight correction Screen size increased by 1.4 times (to 5 inches) while the product size remains the same</p> <p>Energy conservation 23% reduction of electricity used by wireless monitor handsets in both stand-by mode and during use</p> <p>Resource conservation Reduction in packaging materials by approx. 18%</p>

Evaluation of Green Products using a range of factors

We evaluated our Green Products through a comparison with similar products released in fiscal 2001. "Product functionality," which is used as one evaluation criterion, is determined either via the performance of the product's main function or as a score independently calculated based on in-house criteria. "Product life" means the standard hours or frequency of use for the product under normal conditions. For example, in the case of TH-37PX600 plasma TV, product functionality was improved

by 1.75 times in terms of the number of tuners and operability improvement with the same lifetime, while greenhouse gas emissions from the product throughout its lifecycle were reduced almost by a half due to a range of improvements, including the increased efficiency of the light emitting plane. As a result, the plasma TV achieved a GHG Factor of 3.4. The GHG and Resource Factors criteria for Green Products were set at 1.44 and 1.54, respectively in fiscal 2007, and thus great improvements have been made for the six product items listed above.

 http://panasonic.net/eco/factor_x/

Environmental Accounting

Improving cost effectiveness to conduct environmental conservation activities on a continuous basis

Panasonic's environmental accounting consists of "Environmental conservation cost" and "Environmental benefit." Environmental benefit includes "Environmental conservation benefit" (in physical terms) and "In-house economic benefit" (in financial terms). We also evaluate "Environmental conservation benefit" (in financial terms) and "Customer economic benefit" from reductions in electricity charges through the use of our products. Of all our environmental conservation costs (or expenses), we regard the costs associated with pollution prevention, environmental remediation measures, and R&D as "indispensable environmental conservation costs" and set these costs aside from all our "other costs." To ensure that our spending is as beneficial as possible, we pay careful attention to the cost effectiveness of "other costs."

In fiscal 2007, we made efforts to visualize the cost effectiveness of our anti-global warming measures and we clarified the criteria for calculating relevant data. In the future, we will include measures for the reduction of waste and effective use of water in our targets so that

we can improve the efficiency of our entire environmental conservation measures and conduct environmental conservation activities on a continuous basis.

In fiscal 2007, the environmental conservation cost consisted of 13.8 billion yen for capital investments (up 2.7% from fiscal 2006) and 57.8 billion yen for expenses including depreciation costs and payrolls (down 0.7%). The major reason for the increased investment was mainly due to the increase in pollution prevention cost. The indispensable environmental conservation cost amounted to 30 billion yen. In the future it will be important to improve the cost effectiveness of other costs, which totaled 27.8 billion yen.

As for the environmental conservation benefit (in physical terms), it is estimated that CO₂ emissions were reduced by 1.51 million tons (equivalent to a 3,562 million kWh reduction in electricity consumption) as a result of promoting energy conservation design for our products. Regarding in-house economic benefit, sales from revenue-generating waste increased to 20.9 billion yen, up 83% from fiscal 2006, mainly due to a surge in sales prices. There is, however, a major gap between the costs we incurred for purchasing materials and the sales from revenue-generating waste, and so we are aiming to reduce the entire generation of waste, including revenue-generating waste and recyclable wastes.

Environmental conservation cost

Scope of environmental accounting

Accounting period from April 2006 to March 2007

Companies covered: Matsushita Electric Industrial Co., Ltd. and its affiliated companies across the globe, and PanaHome Corporation in Japan

(million yen)

Categories		Investments	Expenses*	Major areas addressed
Business area cost	Pollution prevention cost	3,919	11,356	Renovation of wastewater disposal facilities, installation of deodorizing furnaces, and measures to remove asbestos
	Global environmental conservation cost	3,686	2,387	Introduction of cogeneration systems, repair of air conditioning equipment, and switchover to energy-saving fluorescent lamps
	Resource circulation cost	2,533	7,746	Introduction of systems for utilizing factory wastewater, appropriate disposal of waste, and collection of phosphoric acid
Subtotal		10,139	21,489	
Upstream and downstream cost		1,535	7,766	Measures to comply with the RoHS Directive (including investment in measuring equipment) and the introduction of systems for optimizing logistics
Administration cost		150	9,820	Introduction of management system for chemical substances in products, reauditing, and rooftop forestation and its management
R&D cost		1,619	16,341	Research on general energy conservation-related projects and the development of alternative technologies for chemical substances of concern to Panasonic
Social activity cost		0	67	Contribution and support for environmental activities conducted by conservation organizations and local communities neighboring Panasonic locations
Environmental remediation cost		330	2,325	Measures to remedy soil pollution by PCB, groundwater pollution, and repair of suction wells
Total		13,773	57,807	

* Expenses include the cost of capital investment depreciation. Where the entire amount of investments and expenses cannot be regarded as environmental conservation cost alone, the difference or appropriate portions (divided proportionally) are calculated. R&D cost is limited to investments and expenses for environment-oriented technology development, itself and does not include costs for product development utilizing such technology.

Breakdown of costs for global environmental conservation and resource circulation

(million yen)

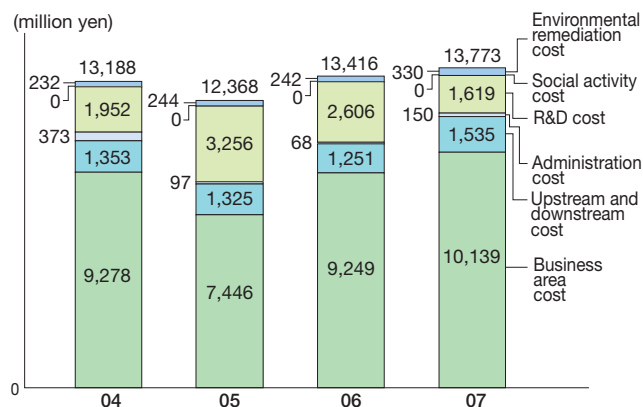
Categories		Major areas addressed	Investments	Expenses	
Global warming measures	Heat-shield painting of factory roofs and switchover to high-efficiency lighting fixtures		3,681	2,326	
	Ozone layer protection measures	Introduction of ICP analyzers and collection and disposal of fluorocarbons	5	62	
Cost for global environmental conservation			Subtotal	3,686	2,388
Waste disposal measures	Modification of molds, collection of waste acids and alkalis & their transport and disposal		1,452	7,242	
	Effective utilization of water measures	Switchover to recycling-based water and well-water piping, and introduction of water conservation system	1,082	504	
Cost for resource circulation			Subtotal	2,534	7,746

Breakdown of environmental conservation cost by region

(million yen)

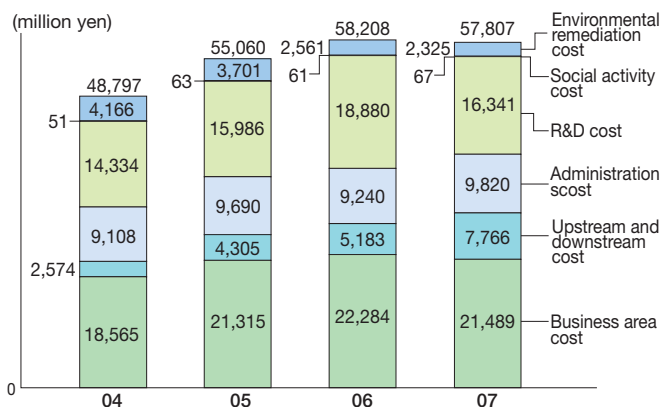
Regions	Investments	Expenses
Japan	10,254	49,844
Other countries	3,519	7,964
Total	13,773	57,808

Investment trends



* MEW and PanaHome were not included in fiscal 2004

Expense trends (including depreciation cost, personnel expenses and other costs)



* MEW and PanaHome were not included in fiscal 2004

Environmental conservation benefit

Environmental benefit (in physical terms)

Categories	Amount of reduction*1		Reference indicators: Environmental impact		
	Fiscal 2007	Fiscal 2006	Fiscal 2007	Fiscal 2006	
Environmental conservation benefit from business activities	CO2 emissions*1	240 kilotons	220 kilotons	4,130 kilotons	4,170 kilotons
	GHG emissions (excluding CO2)*2	2 kilotons	-14 kilotons	370 kilotons	380 kilotons
	NOx emissions	0.0 kilotons	0.0 kilotons	1.8 kilotons	1.9 kilotons
	SOx emissions	0.3 kilotons	0.1 kilotons	0.6 kilotons	0.9 kilotons
	Release and transfer of key reduction- target substances*3	-0.1 kilotons	—	5.0 kilotons	4.9 kilotons
	Final waste disposal	8.6 kilotons	5.1 kilotons	32 kilotons	41 kilotons
	Water consumption (groundwater)	2.6 million m ³ (1.1 million m ³)	4.2 million m ³ (0.0 million m ³)	63 million m ³ (32 million m ³)	66 million m ³ (33 million m ³)
Environmental conservation benefit from product use	CO2 emissions*4 (in Japan)	1,510 kilotons	—	20,570 kilotons	—
	Packing materials used (in Japan)	1 kilotons*5	16 kilotons	145 kilotons*5	146 kilotons
Environmental conservation benefit in product distribution	CO2 emissions	—*6	—*6	—*6	—*6

Environmental conservation benefit in financial terms*7

Fiscal 2007 (million yen)
158
1
2
13
—
—
40*8
991
—
—*6
Total 1,205

*1 The amount of CO2 emission reduction during business activities and product distribution refers to the difference between the amount emitted after reduction measures were implemented and the amount that would have been emitted had the measures not been implemented.

*2 GWP tons - CO2

*3 In fiscal 2007, reduction targets were set focusing on Key Reduction-target Substances against the baseline figures in fiscal 2006.

*4 (Lifecycle CO2 emissions from the use of fiscal 2006 models - lifecycle CO2 emissions from the use of fiscal 2007 models) x the number of units sold in Japan. Estimated amount of emissions from 30 major products (p. 15). The period of use is estimated to be 10 years. 0.425 kg of CO2/kWh is used as a coefficient for CO2 emissions from electricity purchased.

*5 Estimates for fiscal 2007

*6 Data will be calculated under a new system and disclosed in the following website in September: panasonic.net/eco/data_file/

*7 The coefficient used to convert physical terms into financial terms is based on the cost necessary for curbing 1 ton of CO2 environmental impact in Japan.

CO2 = 655 yen/ton; a carbon tax estimated by the Ministry of the Environment, Japan in 2004

NOx = 66 yen/kg, SOx = 50 yen/kg, Groundwater = 36 yen/ton; Estimated from the cost to curb environmental impact

Chemical substances, waste, and packing materials are not covered.

*8 Targeting only groundwater with no supply cost

In-house economic benefit (amount)

		(million yen)	
		Fiscal 2007	Fiscal 2006
Revenue	Revenue* on sales of recyclable waste from business units	19,226	10,170
	Revenue on sales of recyclable waste from used products	1,684	1,230
	Subtotal	20,910	11,400
Expense reduction	Energy cost reduction at business units	10,198	7,670
	Waste disposal cost reduction	4,674	3,827
	Reductions in water, sewage, packing materials, and logistics costs	2,745	1,698
	Subtotal	17,617	13,195
	Total	38,527	24,595

* Presumed benefit such as the avoidance of potential risks and enhanced corporate image are not included in these figures.

Customer economic benefit

Reductions in electricity bills charged for product use (in Japan)	
Electricity reduction*1	3,562 million kWh (CO2 emissions reduced by 1,510 kilotons)
Electricity bills reduction*2	78.3 billion yen

*1 Reductions in power consumption of 30 main products (P. 15) for fiscal 2007 Japanese market over 10 years were estimated using the following formula: (Lifecycle power consumption by models sold on the Japanese market in fiscal 2006 - lifecycle power consumption by models sold on the Japanese market in fiscal 2007) x the number of units sold on the Japanese market in fiscal 2007

*2 Financial conversion coefficient of electricity cost is 22 yen/kWh.

Source: "Revised Reference Electricity Rates," published by the Home Electric Appliances Fair Trade Conference.

Our goal is to help build a sustainable society by accelerating the spread of products with higher environmental performance. We aim to increase the ratio of Green Products across our entire product range and contribute to reducing the environmental impact of society at large.

Fiscal 2007 Targets and Results

Basic targets

- Green Product Development Rate: 74%
- ➡ **Result 96%**

Environmental performance targets

- Estimation of CO₂ emissions from products in use
- ➡ **Result 20.57 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)

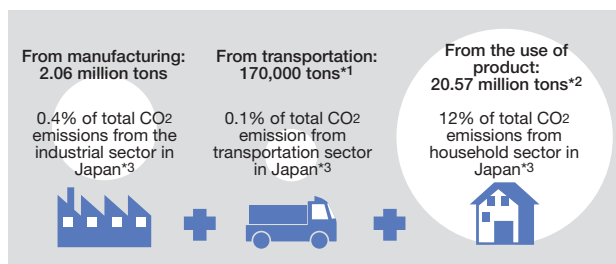
● Major economic benefits

Benefits from the use of 30 major products* over 10 years

- Electricity reduction: 3,562 million kWh
- CO₂ reduction: 1.51 million tons
- Electricity bills reduction: 78.3 billion yen

* 30 major products: new products released in fiscal 2007, which comprise plasma TVs, LCD TVs, CRT TVs, DVD recorders, SD stereo systems, personal fax machines, refrigerators, air conditioners, microwave ovens, IH cooking heaters, washer/dryers, fully-automatic washing machines, laundry dryers, rice cookers, dish washer/dryers, natural refrigerant (CO₂) 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 (no new products in fiscal 2007, only resource factor), lighting equipment, and hair dryers.

■ Panasonic's CO₂ emissions in Japan (fiscal 2007)

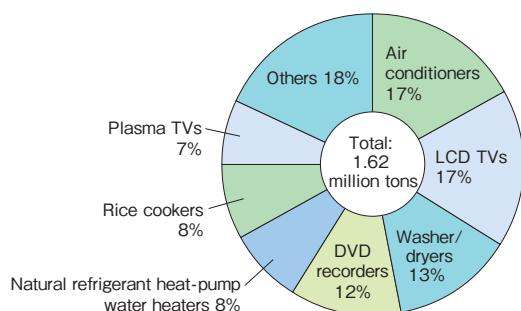


*1 Result in fiscal 2006

*2 Calculated for 30 major products that consume a large amount of resources and energy (including products from manufacturing sites outside Japan)

*3 Calculated based on the Ministry of the Environment's preliminary reports for fiscal 2006 (data of fiscal 2005 for emissions from transportation activities)

■ Breakdown of CO₂ emission reductions from 30 major products*



* Comparison to fiscal 2006. Amount of increased emission is 110,000 tons

Environmentally-Conscious Products

Concept/Future activities

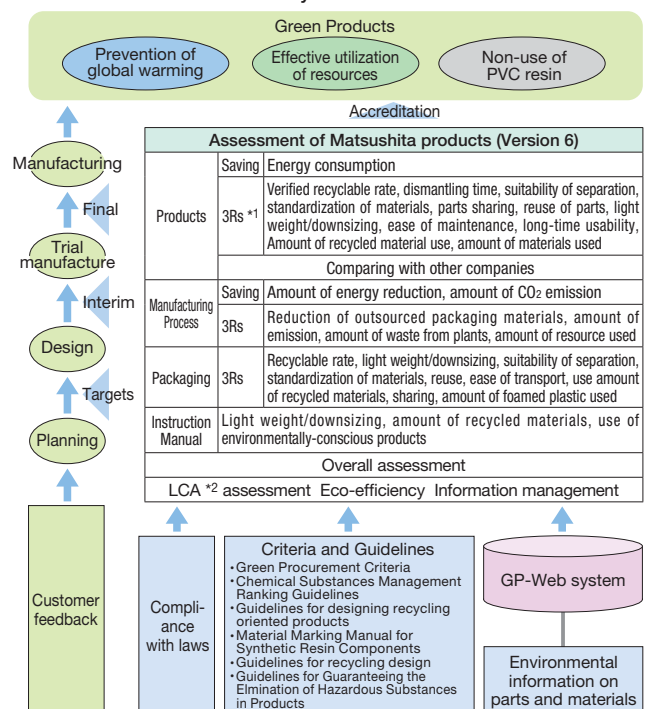
Product development that considers prevention of global warming, effective utilization of resources, and chemical substances management

Panasonic has been utilizing an environmental assessment system for its products since fiscal 1992. Under this system, we assess the environmental impact of our products right from their planning and design stages. In fiscal 2007, we published the sixth version of our manual for assessing the environmental impact of our products, in which market benchmarking of product performance was added to the procedures for setting numerical targets. We assess products based on criteria set for the following three aspects: global warming prevention, effective utilization of resources, and chemical substances management. 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 of our products. In addition, we will endeavor*1 to improve our resource efficiency*2 and appropriately manage chemical substances toward the development of products with even higher environmental performance.

*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



*1 Reduce, Reuse, and Recycle

*2 A method of quantitatively assessing the environmental impact of products at each lifecycle stage.

Activity

Visualizing environmental efficiency under the GP Accreditation levels

We have defined the percentage that Green Products account for in the value of all shipments from factories of products developed in the fiscal year as “Green Product (GP) Development Rate” and have set a target for this rate. In fiscal 2007, the rate increased to 96%, far exceeding the target value of 74%. In fiscal 2007 we also 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. We aim to achieve at least a 90% GP Development Rate in fiscal 2011. [P.17](#)

● Super GPs

We introduced the Super GP Accreditation Program in fiscal 2003. In fiscal 2007, we accredited plasma TVs as a Super GP. All of our plasma TVs incorporate the industry's first lead-free display panel, and achieved the highest energy conservation in the industry for such a device. [P.21](#)

● Products accredited as Super GPs

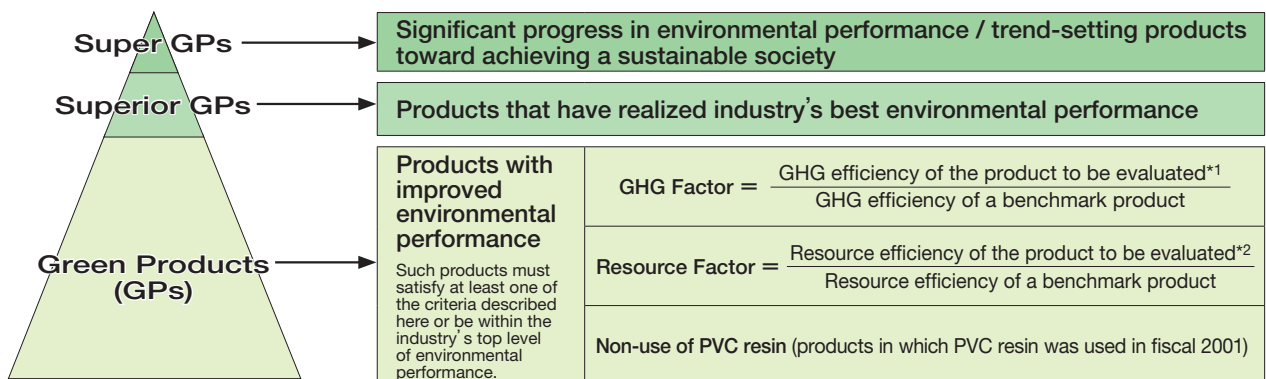
Fiscal year	Products
2003	HFC-free refrigerator Standby energy-conserving “Intelligent Power Devices (IPD)”
2006	Tilted-drum washer/dryer
2007	Plasma TV

* No products were accredited as Super GPs in fiscal 2004 or 2005

● Superior GPs

We introduced the Superior GP Accreditation Program in fiscal 2005 and accredited 66 product items as Superior GPs in fiscal 2007. As a result of improving the environmental performance of our products through concerted efforts, and by establishing a foundation for developing and marketing GPs, we were able to substantially increase the number of Superior GPs compared to fiscal 2006 (37 products accredited as Superior GP). [P.21~23](#)

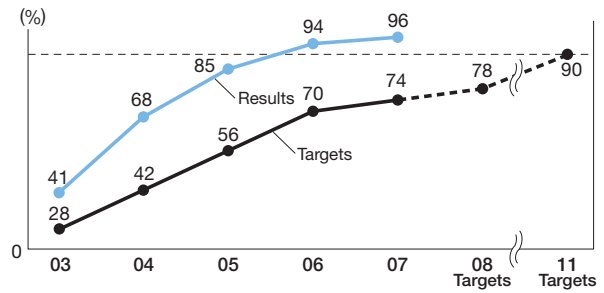
■ Green Product Accreditation Criteria (fiscal 2007)



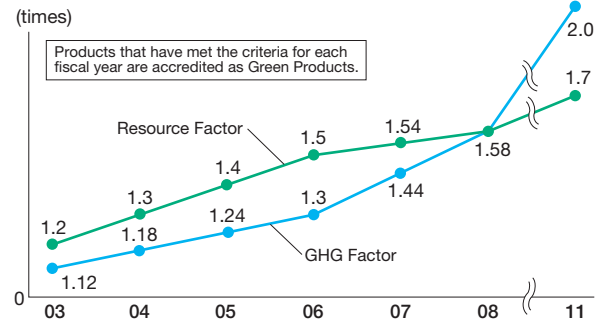
*1 GHG efficiency = (Product life x product functions)/GHG emissions over the entire life cycle

*2 Resource efficiency = (Product life x product functions)/Amount of non-circulating resources over the entire life cycle

■ Green Product Development Rate



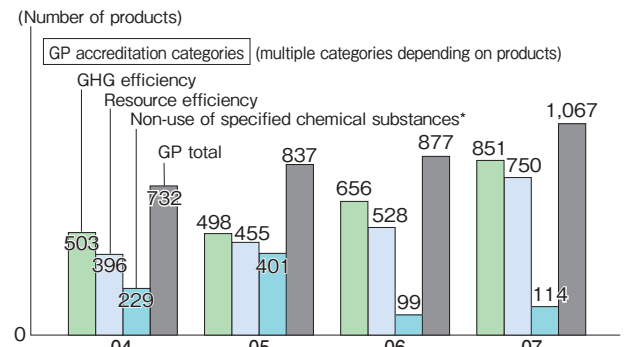
■ Criteria for Factors (as compared with fiscal 2001)



■ Green Product Development Rate in major business areas

Major business areas	Major products	GP Development Rate
AVC network	Plasma televisions, LCD televisions, digital cameras, DVD recorders, digital video cameras, personal computers, personal facsimile, mobile phones, car navigators, etc.	98%
Appliances	Refrigerators, washing machines, room air conditioners, microwave ovens, vacuum cleaners, IH cooking heaters, electric lamps, ventilation and air-conditioning equipment, etc.	89%
Devices	Semiconductors, motors, batteries, etc.	98%

■ Breakdown of Green Products



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

Energy Conservation in Products

Concept

Achieving both higher functionality and greater energy conservation

We are using our GHG Factor, which represents the GHG efficiency improvement rate (as compared against a fiscal 2001 baseline), to measure our contribution to the prevention of global warming through our products and services. We have set GHG Factor targets within our GP Accreditation criteria, and are striving to develop energy conservation technologies for the prevention of global warming while improving our product functions.

Based on a comparison of power consumption for 30 major products (P.15) sold in fiscal 2006 and fiscal 2007, we estimate that we will help reduce the consumption of electricity by 3.6 billion kWh and save 78.3 billion yen in customers electricity cost over the next 10 years.

→ P.14,15

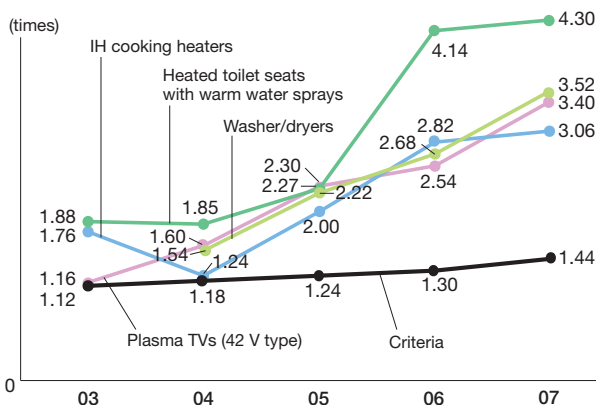
* GHG efficiency = (Product life x product function)/GHG gas emissions over the entire life cycle

Activity

Further improvement in energy conservation performance

Regarding the GHG Factor, some of the major products released in fiscal 2007 have already achieved their target values for fiscal 2011. We are therefore making the GP Accreditation criteria stricter year by year with the aim of developing products with even higher GHG efficiency. We will increase the number of product items to which our energy conservation performance technology is applied, thereby improving the overall energy conservation performance of our product portfolio.

■ GHG Factors for major new products



■ Reduction in standby power consumption

Products	2006 Models	Reduction (as compared with 2000 models)
Plasma TVs (42V type)	TH-42PX60	96%
Mobile phones	P903iTV	89%
IH cooking heaters	KZ-VSW33C	78%
Air conditioners (2.8 kw)	CS-X287A	75%
DVD recorders	DMR-XP10	62%

■ Changes in annual power consumption

Products	2006 models	Reduction (as compared with 2000 models)
Heated toilet seats with warm water sprays	DL-GWN50	71%
Vending machines	NS-7W36HP	62%
Washer/dryers	NA-VR1100	53%
DVD recorders	DMR-XP10	52%
Plasma TVs	TH-42PX60	50%

Case Example of a product with a high GHG Factor- Tilted-drum washer/dryer NA-VR1100



We made further improvements to the NA-VR1000, our tilted-drum washer/dryer which was accredited as a Super GP in fiscal 2006, and developed the NA-VR1100. Specifically, we developed a high-speed energy-saving heat pump capable of more efficient heat exchange by improving the heat exchanger layout and heat circulation route and thereby reducing air resistance to approximately one-third. In addition, we adopted a new stainless-steel drum designed with multiple dome-shaped projections inside it, thereby increasing the drying power and reducing the time required for drying. Through these technological efforts, we have reduced the total time required for washing and drying to approximately 145 minutes, achieving the industry's No. 1 environmental performance in terms of electricity consumption (for washing and drying) at approximately 1,450 Wh.*¹ Compared with our model released seven years ago, the time required for washing and drying was reduced to almost half and electricity consumption to approximately one-quarter.*²

The NA-VR 1100 won a prize from the Minister of Economy, Trade and Industry in the eco products category at the 3rd Eco Products Grand Prix, and a prize from the Director-General of the Agency for Natural Resources and Energy at the 17th Energy Saving Awards held by the Ministry of Economy, Trade and Industry.

*¹ As of September 28, 2006

*² Compared with Panasonic's automatic washer NA-F70PX1 and clothes dryer NH-D500 with the capacity of 6 kg



NA-VR1100



GHG Factor:
3.7

Resource Conservation in Products

Concept

Higher function with more resource conservation at the same time

We are using our Resource Factor, which represents the resource efficiency improvement rate (compared against a fiscal 2001 baseline),*1 to measure our contribution to ensuring the most efficient utilization of resources through our products and services. We have set targets for this factor within our GP Accreditation criteria, and are striving to develop technologies for the effective utilization of resources while improving our product functions.

For 30 major products (P. 15), we were able to reduce the use of resources by 18,600 tons for products released in fiscal 2007 as compared with the use of resources for those released in fiscal 2006. The total mass of these 30 major products, however, amounts to as much as 396,000 tons on an annual basis (Japan only). 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.

*1 Resource efficiency = (Product life x product function) / amount of 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

Concept and activity

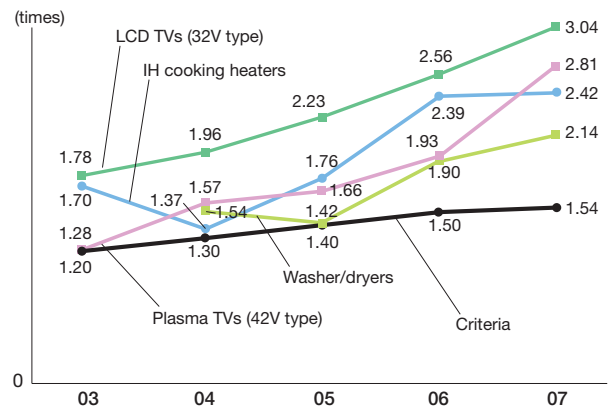
Pursuit of higher resource efficiency

To make the most of the resources used in our products, it is essential to design products in a recycling-oriented manner. In order to achieve higher recycling rates* in an efficient manner, in fiscal 2006 our product designers in Japan dismantled their products to identify problems associated with their recycling. This activity was continued into fiscal 2007 and a total of approximately 120 models were checked for their recyclability. As a result, we were able to collect data on recycling technology and know-how for each product, which was then incorporated into the in-house product design guidelines used by our designers. In the future, we will encourage all our designers around the Globe to dismantle products to check their recyclability and improve approach to design assessment.

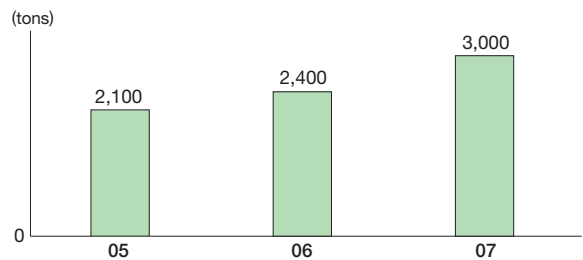
Environmental Technology Solutions Co., Ltd., which Panasonic established, recovers and recycles resin from four home appliance items. Panasonic uses some of the recycled resin in its products. In fiscal 2007, we used 3,000 tons of recycled resin mainly for washing machines and refrigerators.

* According to the Japanese Law for Recycling of Specified Kinds of Home Appliances, the recycling rate is the percentage in weight of components/materials that are separated from waste home appliances and that can be either sold or provided free of charge to businesses

Resource factors of major new products



Use of recycled resin



Case Product with a high Resource Factor – Personal fax machine KX-PW506

- In the case of our personal fax machine KX-PW506, we were able to reduce the volume and weight by 73% and 80% respectively (against the previous model, KX-PW503DL) by implementing the following design changes. We totally reviewed the composition and shapes of the parts and we substantially reduced the number of screws to make it easier to dismantle the product for recycling. Also, we eliminated the space required for unscrewing.
- In addition, we integrated the main body of the fax machine and the handset holder to make them more compact, thereby achieving the world's smallest size.*

* World's smallest size for the volume of the main body of the plain paper personal fax machine, excluding the receiver and protruding parts (as of September 15, 2006)



Resource Factor:
1.82

Reducing Chemical Substances

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 lifecycles. In particular, in order to prevent the diffusion of chemical substances into the natural environment over the life cycle, we first published our Chemical Substances Management Rank Guidelines in 1999. 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 therefore we do not use such materials. For chemical substances that may adversely affect the environment but which are not prohibited by law, we monitor our use of these substances as "managed substances." Those substances that should partially be discontinued we define as "Level 2" prohibited substances. In the future, we will promote measures to comply with the new European chemicals regulations called REACH,* which come into effect in 2007.

* Registration, Evaluation, Authorization, and Restrictions of Chemicals

Chemical Substances Management Ranking Guidelines Ver. 4 (for products)

Ranks	Substances groups	Definitions	
Prohibited substances	Level 1	13	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 PDE)	Specified amine compounds
Azo dyes and pigments forming specified amines	Ozone-depleting substances (excluding HCFC)
Polychloronaphthalene (chlorine number is three or more)	Formaldehyde
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
Beryllium and its compounds (including alloys)	(excluding PBBs and PBDEs)
Bismuth and its compounds (including alloys)	Ozone-depleting substances (HCFCs)
Nickel and its compounds (excluding alloys)	Radio active substances
Selenium and its compounds (including alloys)	Phthalate esters

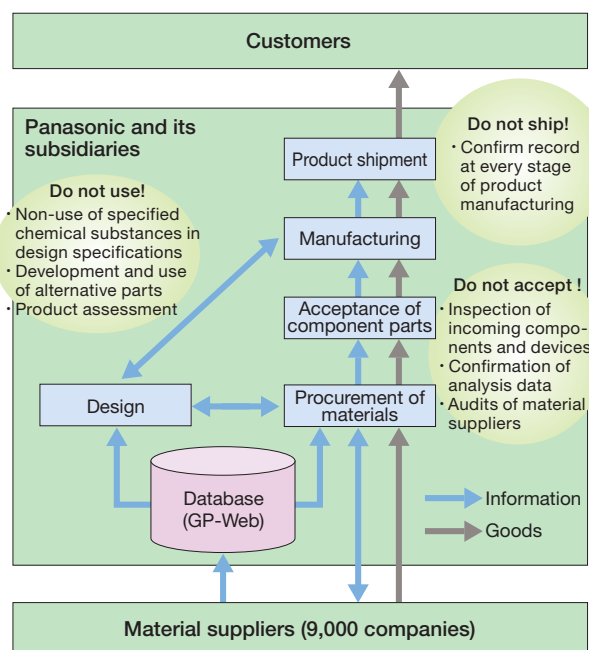
panasonic.co.jp/eco/suppliers/

Promoting non-use of specified chemical substances globally

In July 2006, the RoHS Directive came into force in the European Union (EU), banning the sale of all electrical and electronic equipment that contain six specified chemical substances (lead, mercury, cadmium, hexavalent chromium, and two specified brominated flame retardants). Moves toward similar bans are now spreading across the world. For example, the Act on the Promotion of Effective Utilization of Resources was revised in Japan in July 2006, and Management Methods for Controlling Pollution by Electronic Information Products were enforced in China in March 2007.

Panasonic expanded the non-use of specified chemical substances on a global scale and we completely substituted these substances with safer ones in all targeted 31,400 models by the end of October 2005. Even after the completion of this switchover, we have been continuing our efforts to prevent any acceptance, use, or distribution of specified chemical substances throughout our production activities at all our global sites, including product design and shipment inspections. For example, we have introduced analyzing equipment at our manufacturing sites so that staff can analyze and check for the use of specified chemical substances in the parts they purchase for manufacturing. In fiscal 2007, we implemented internal audits and introduced more analyzing machines to enhance our specified chemical substance management system.

Specified chemical substance management system



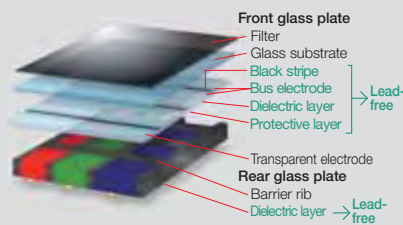
Case Developing the world's first lead-free plasma display panel

A plasma display panel (PDP) comprises electrodes, a dielectric layer, seal frit, and various other materials, which are stacked on glass substrates. In order to handle the differences in temperature at which the glass ingredient of each material softens, lead has traditionally been used in the manufacturing process.

Despite the widely held view that it was beyond current technical know-how, Panasonic succeeded in developing a lead-free PDP, by adopting two approaches: the development of a new additive, and the review of thermal process conditions. We implemented this new lead-free PDP manufacturing method across all our PDP manufacturing plants and began producing all our new products using

lead-free PDPs (140 models) as of fiscal 2007.*

* As of November 2, 2006



Activity 2

Partially discontinuing use of polyvinyl chloride (PVC) resin

With regard to PVC resin, concerns have been raised about the potential generation of hazardous substances if the waste material is disposed of incorrectly. These concerns relate to the potential harmful effects of a specific additive (phthalate ester) used to soften the resin. Panasonic has substituted this PVC resin with alternative materials in several of its products. In fiscal 2007, we expanded our targets and substituted a total of 616 tons of PVC resin (5% of total amount of use in new products), mainly in new products in the field of AVC networks and in those made by Matsushita Electric Works, Ltd. Furthermore, we have established internal milestones towards the discontinued use of PVC resin, and identified some specific deadlines. In particular, acknowledging the fact that the inability to isolate internal PVC wiring in waste electronic devices can restrict recycling, we will discontinue the use of PVC resin in internal wiring for all new products in April 2009 in Japan and in 2011 outside Japan. Also, with regard to 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 use of this resin.

Major products for which the use of PVC resin was discontinued

DVD recorders (8 models)	Air purifiers (3 models)
Digital still cameras (2 models)	Lighting equipment (5 models)
Liquid crystal projectors (2 models)	Equipment for mobile phone stations (2 models)

Collecting and managing data on chemical substances from suppliers across the world

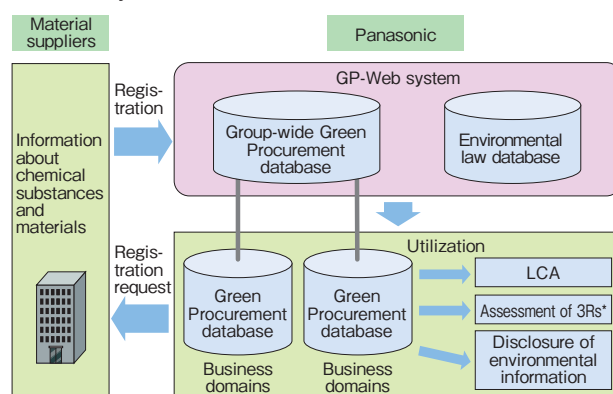
Panasonic procures parts and materials from some 9,000 suppliers worldwide. In March 1999, we released our first Green Procurement Standards (Version 4 was issued in April 2006) along side Chemical Substance Rank Guidelines, aiming at promoting the manufacture of environmentally-conscious products in 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.

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) Provision of Content Survey Sheets for managed substances (quantity) and input into GP-Web
(3) Establishment of a Chemical Substances Management System and implementation of environmental quality assurance system audits
(4) Establishment of an Environmental Management System (EMS) (Acquisition of ISO14001 certification, environmental principles and policies, environmental management plans, product assessment, environmental impact assessment, education, information disclosure, and rationalization of distribution)
Eight materials selection standards
(1) Compliance with laws and regulations concerning recycled resources 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, together with energy conservation 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 2006 and Superior GP 2006

Energy conservation Resource conservation Chemical substances Environmental creativity

Commodity item (Environmental item of industry's top level performance)

- ① Model number ② Release date
- ③ Category in aforementioned commodity item
- ④ Practical values for industry's top level environmental performances as of release date
Inside a parenthesis is performance specifications of competitive products

AVC Networks

Super GP-accredited products

Plasma TVs



- The world's first lead-free plasma display panel
- The industry's No. 1 energy conservation performance

	Resource conservation	Resource conservation	Resource conservation	Resource conservation	Resource conservation
	Energy conservation	Energy conservation	Energy conservation	Energy conservation	Energy conservation
①	TH-58PX600	TH-50PX60	TH-42PX60	TH-37PX600	TH-37PX60
②	May 2006	July 2006	July 2006	May 2006	July 2006
③	58V type	50V type	42V type	37V type	37V type
④	498 kWh/year (540 kWh/year) 0.1W(0.5W) 62 kg (63 kg)	363 kWh/year (392 kWh/year) 0.1 W (0.5 W)	264 kWh/year (330 kWh/year) 0.1 W (0.5 W) 31 kg (36.6 kg)	239 kWh/year (290 kWh/year) 0.1 W (0.5W) 29 kg (30.5 kg)	209 kWh/year (290 kWh/year) 0.1 W (0.5W) 27 kg (30.5 kg)

④ Upper: Annual power consumption, middle: standby power consumption, lower: mass

LCD TVs (two products)

Energy conservation

- ① TH-32LX60/TH-26LX60
- ② February 2006
- ③ 32V type/26V type
- ④ Rated power consumption:
131 W (149 W)/109 W (125 W)
Annual power consumption:
141 kWh/year (160 kWh/year)
123 kWh/year (152 kWh/year)



DVD recorders (two products)

Energy conservation

- ① DMR-XP10/DMR-XP20V
- ② September/October 2006
- ③ VHS/DVD recorder with built-in hard disk
- ④ Rated power consumption: 36 W (41 W)/41 W (44 W)



SD Stereo systems

Energy conservation

- ① SC-SX450/SX850
- ② September 2006
- ③ SD stereo system with built-in hard disk
- ④ Power consumption standby power consumption annual power consumption
SX850: 39 W (48 W), 0.1 W (0.5 W), 29.28 kWh (39.06 kWh)
SX450: 34 W (48 W), 0.1 W (0.5 W), 25.63 kWh (39.06 kWh)



SD audio players

Energy conservation

- ① SV-SD800N/SD400V
- ② September 2006
- ③ Digital audio player
- ④ Power consumption:
25.8 mW (30.0 mW)
Annual power consumption:
0.8218 kWh (0.8249 kWh)



AV control amplifiers

Energy conservation

- ① SU-XR700
- ② September 2006
- ③ Full digital AV amplifier supporting HDMI
- ④ Power consumption: 28 W (85 W)
Annual power consumption:
26.06 kWh (62.85 kWh)



Mobile notebook personal computers

Energy conservation
Resource conservation

- ① CF-Y5 series
- ② May 2006
- ③ 14.1-inch LCD mobile PC with optical disk drive
- ④ Operates on batteries for 9 hours (3.5 hours)
Product mass: 1,490 g (1,990 g)



SD cards

Energy conservation
Resource conservation

- ① RP-SDR01GJ1A
- ② July 2006
- ③ SD card
- ④ Standby power consumption: 0.19 mW (0.29 mW)
Power consumption in operation: 103 mW (195 mW)
Resource input: 12.65 g (21.4 g)



Memory card portable recorder/players

Energy conservation
Resource conservation

- ① AJ-HPM100
- ② November 2006
- ③ Memory card portable recorder/player
- ④ Power consumption: 60W (70 W)
Mass: 6.5 kg (7.2 kg)



DLP™ projectors

Energy conservation

- ① TH-DW10000
- ② December 2006
- ③ DLP™ projectors
- ④ Power consumption: 1,450 W (2,000 W)
Efficiency: 6.9 lm/W (4 lm/W)



Liquid crystal projectors for household use

Energy conservation
Resource conservation

- ① TH-AE1000
- ② November 2006
- ③ Liquid crystal projector for household use (Full high vision projector)
- ④ Efficiency: 0.218 lm/W (0.763 lm/W)
Volume: 0.0179 m³ (0.0498 m³)
Mass: 7.2 kg (19.0 kg)



Liquid crystal projector

Resource conservation

- ① TH-P1SD
- ② February 2006
- ③ Portable liquid crystal projector
- ④ Mass: 1.3 kg (2.6 kg)



Home Appliances

Personal fax machines

- ① KX-PW506DL/DW
- ② October 2006
- ③ Cordless plain paper fax machine
- ④ Product mass: Approx. 2.3 kg (approx. 2.7 kg)
Volume: Approx. 0.0046 m³ (approx. 0.0059 m³) (For the base unit)



Resource conservation

Speakerphones

- ① KX-TS745JP
- ② March 2007
- ③ Speakerphone
- ④ Power consumption: 5 W (7.5 W)



Energy conservation

PLC adaptors

- ① BL-PA100KT
- ② December 2006
- ③ PLC adaptor
- ④ Power consumption: Approx. 4 W (10 W)



Energy conservation

Blu-ray disk drives

- ① UJ-210 series
- ② April 2006
- ③ Blu-ray disk drive
- ④ Mass: 190 g (963.5 g)



Resource conservation

ETC (Electric Toll Collection) devices

- ① CY-ET906D/KD
- ② May 2006
- ③ ETC device
- ④ Mass: 140 g (150 g)



Resource conservation

Mobile phones

- ① P902iS
- ② June 2006
- ③ Mobile phone 902iS series
- ④ Product mass: 109 g (114 g)



Resource conservation

W-CDMA wireless base station device High-density multi-band BTS

- ① BS-2201 type BTS
- ② October 2006
- ③ Mobile communication base station device
- ④ Power consumption per channel: 2.08 W/ch (2.95 W/ch)



Energy conservation

Mobile terminals Type II PT2

- ① JY-7000SX20
- ② February 2007
- ③ Mobile terminal
- ④ Nonuse of PVC resin (used in internal wiring in the past)



Chemical substances

Network disk recorders

- ① DG-ND200
- ② November 2006
- ③ Image security market (Recorder category)
- ④ Power consumption: Approx. 35 W (approx. 40 W)



Energy conservation

Heat pump-type tilted-drum washer/dryers

- ① NA-VR1100
- ② November 2006
- ③ Tilted-drum washer/dryers
- ④ Capacity: 6 kg of laundry for washing and drying
Annual power consumption: 475 kWh/year (584 kWh/year)
Annual water consumption: 23.0 m³/year (23.4 m³/year)
Annual CO₂ emissions: 218 kg/year (266 kg/year)



Energy conservation

Resource conservation

Super energy-saving air conditioner X series

- ① CS-X227A, CS-227XB, CS-22RGX
- ② November 2006
- ③ Cooling capacity: 2.2 kW class
- ④ Heating and cooling average COP: 6.62 (6.40)
Power consumption for service period: 668 kWh (717 kWh) (According to the relevant catalogue)



Energy conservation

Heated toilet seats with warm water sprays

- ① DL-GWN70, DL-GWN50, DL-GWN40, DL-GWN20
- ② November 2006
- ③ Heated toilet seat with bidet
- ④ Annual power consumption: 74 kWh (measured by the test method stipulated by the Energy Conservation Law)
94 kWh (Panasonic's calculation made in consideration of the actual use conditions) (172 kWh)



Energy conservation

IH cooking heaters

- ① KZ-VSW33C
- ② September 2006
- ③ IH cooking heater
- ④ Water-heating efficiency: 76.3% (62.2%) (for aluminum pots)



Energy conservation

Steam microwave ovens

- ① NE-SV30HA
- ② September 2006
- ③ Steam microwave oven
- ④ Annual power consumption: 71.0 kWh/year (76.1 kWh/year)



Energy conservation

Steam IH jar rice cookers

- ① SR-SSA series
- ② May 2006
- ③ Highest level IH rice cooker
- ④ Energy conservation achievement rate
1.0 L: 97.5% (95.5%)
1.8 L: 102.9% (87.1%)



Energy conservation

Specified low-power radio wireless modules

- ① GB-M1B series
- ② March 2006
- ③ Specified low-power radio wireless modules
- ④ Received current: 11.6 mA (including microcomputer)
13 mA (excluding microcomputer)
Size: 18 x 14 x 1.4 mm (32 x 29 x 6.5 mm)



Energy conservation

Resource conservation

Vending machines for bottled drinks

- ① NS-7W36HP
- ② January 2007
- ③ Bottled drink vending machine
- ④ Annual power consumption: 990 kWh/year (1,700 kWh/year)



Energy conservation

Ventilation fans

- ① FY-08PS8VD
- ② June 2006
- ③ Air supply-type ventilation fan
- ④ Power consumption: 1.7/2.2 W (2.7/2.7 W)



Energy conservation

Dehumidifiers

- ① F-YHC100
- ② April 2007
- ③ Dehumidifier equipped with cooling function
10 L/day
- ④ Product mass: 12 kg (13 kg)



Resource conservation

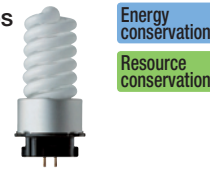
PA-LOOK BALL PREMIER

- ①EFA15EL/10H and others
- ②October 2006
- ③Fluorescent bulbs
- ④Power consumption: 10 W (12 W)
Lamp efficiency: 81 lm/W (67.5 lm/W)
Life: 10,000 hours (6,000 hours)



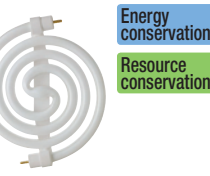
Compact spiral fluorescent lamps

- ①FHSD20EN and others
- ②April 2007
- ③Compact fluorescent lamps
- ④Power consumption: 20 W (27 W)
Luminous efficiency: 75 lm/W (57.4 lm/W)
Mass: 55 g (73 – 84 g)
Life: 10,000 hours (6,000 hours)



Spiral PA-LOOK fluorescent lamps

- ①FHSC20EL and others
- ②April 2007
- ③Round-type fluorescent lamps
- ④Power consumption: 20W (24 W)
Luminous efficiency: 90 lm/W (75 lm/W)
Mass: 40 g (85 g)
Life: 12,000 hours (10,000 hours)



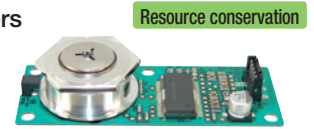
DC brushless motors for driving vertical washers

- ①EHDSL 1 series
- ②September 2006
- ③DC motor for vertical washers
- ④Product mass: 2.6 kg (5.5 kg)



Motors for laser scanners

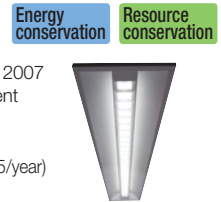
- ①MASQ*NF series
- ②April 2006
- ③Motor for laser scanners
- ④Motor mass: 34.6 g (48 g)



Matsushita Electric Works, Ltd.

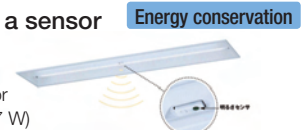
Environmentally-conscious lighting equipment

- ①FSA61000F, WF9, and others
- ②January 2007
- ③New high-frequency basic lighting equipment
- ④Power consumption: 56 W (65 W)
Lamp life: 18,000 hours (12,000 hours)
Number of lamps to be replaced: 0.17 /year (0.5/year)
Mass of the equipment: 1.8 kg (2.5 kg)



Lighting equipment with a sensor

- ①FSS42060 PX9 and others
- ②July 2006
- ③Lighting equipment with a sensor
- ④Power consumption: 45 W (75.7 W)



Tunnel lighting equipment with a light flux sensor

- ①YFX42509
- ②October 2006
- ③Tunnel lighting equipment with a luminous flux sensor
- ④Power consumption: 78 W (98 W)



TwinPa Produce Relax

- ①SLAZ8910
- ②June 2006
- ③Direct-mount lighting equipment
- ④Luminous efficiency: 106.9 lm/W (103.0 lm/W)



Compact spiral downlights SPILE 100 (coated by silver deposition)

- ①NFM21700ENM
- ②December 2006
- ③Downlight for stores
- ④Power consumption (system): 21 W (100 W)
Size: \varnothing 100 (\varnothing 125)
Lamp life: 10,000 hours (1,500 hours)
Luminous flux: 1,500 lm (1,200 lm)



Alkaline ionized purifiers

- ①TK7507
- ②March 2007
- ③Alkaline ionized purifier
- ④Standby power consumption: 0.2 W (3 W)



Rechargeable impact drivers

- ①EZ7540
- ②March 2006
- ③Rechargeable impact driver
- ④Life (discharge and charge): 1,000 times (254 times)



Devices

Size AA Oxryde dry batteries

- ①ZRB6
- ②April 2006
- ③Size AA dry battery
- ④1 W continuous discharge time: 64 minutes (37 minutes)



Lithium ion batteries

- ①NCR18650
- ②April 2006
- ③Lithium ion batteries
- ④Capacity: 2.9Ah (2.6 Ah)
Mass: 44 g (46 g)
Energy density: 620 Wh/L (580 Wh/L)



MOS FET

- ①MTMC8E28
- ②October 2006
- ③MOSFET
- ④On-state resistance per area: 28 m Ω (36 m Ω)



HDMI-Tx communication LSI

- ①MN864702A
- ②December 2006
- ③HDMI-Tx communication LSI
- ④Power consumption (in operation and standby)



Microcomputers for specified low-power radio wireless modules

- ①MN101C89D/MN101CA8D
- ②May/August 2006
- ③Microcomputer for specified low-power radio wireless modules
- ④Battery life: 11.5 years (5 years) (As modules)



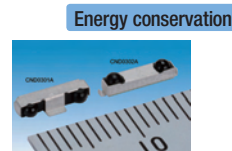
Four-Thirds v Maicovicon image sensors

- ①MN39960
- ②January 2006
- ③Image sensor for single-lens reflex cameras
- ④Smallest chipsize in industry (in the same number of pixels)



IrDA for FIR

- ①CND0302A/CND0304A
- ②May 2007
- ③IrDA
- ④Idle current (Typ): 580 μ A (1,000 μ A)
Idle current (Max): 800 μ A (1,600 μ A)
Shut-down current: 0.2 μ A (1.0 μ A)



Doltz sound wave vibration toothbrushes

- ① EW1162, EW1163
- ② March 2007
- ③ Rechargeable electric toothbrush
- ④ Grip diameter x total length (including the brush)
 \varnothing 17.3 x 210 mm (\varnothing 21 x 225 mm)
 Mass: 50 g (including the brush) (66 g)



Resource conservation

Self-cleaning toilet A-La-Uno

- ① CH1001WS ② December 2006
- ③ Tankless toilet with a built-in heated seat with bidet
- ④ Flushing water: 5.7 L (6 L) and 4.5 L (5L) for solid waste and urine, respectively
 Annual power consumption: 90 kWh (172 kWh)



Energy conservation

Resource conservation

Light and Trust Service

- ② April 2002
- ③ Environmental service
- ④ Information about the amount of material recycled, waste traceability, 100% recycling of waste including mercury



Narrow-pitch connectors P35S

- ① AX1****
AX2****
- ② October 2006
- ③ Narrow-pitch connector
- ④ Volume (connected):
 51.57 mm^3 (57.60 mm^3)
 Mass (socket + header):
 0.08 g (0.09 g) (for 40 wires)



Resource conservation

Sockets for micro SD cards

- ① AXA4****
- ② July 2006
- ③ Sockets for memory cards
- ④ Volume:
 376.3 mm^3 (480.3 mm^3)



Resource conservation

Breakers for remoter controllers

- ① BKFR2200RT
- ② July 2006
- ③ Wiring breaker
- ④ Mass: 230 g (440 g)
 Volume: 234 cm³ (354 cm³)
 Cadmium-free contacts



Resource conservation

Chemical substances

RS relay devices

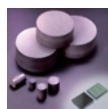
- ① ARS****
- ② January 2007
- ③ High-frequency relays
- ④ Volume:
 842.8 mm^3 ($1,051.2 \text{ mm}^3$)
 Mass: 1.7 g (2.4 g)



Resource conservation

Environmentally-conscious semiconductor sealants

- ① CV8710
- ② April 2006
- ③ Sealant for array packages
- ④ First halogen- and antimony-free fire retardant in the industry



Chemical substances

Halogen-free glass epoxy laminated sheets for PKG

- ① R-1515B
- ② May 2006
- ③ Glass epoxy laminated sheets for PKG
- ④ Minimum thickness: 40 μm (60 μm)
 Mass: 72 g/m² (111 g/m²)



Resource conservation

Other

Screen printers

- ① SP18P-L
- ② August 2006
- ③ Screen printer
- ④ Electric capacity: 1.4 kVA (2.0 kVA)



Energy conservation

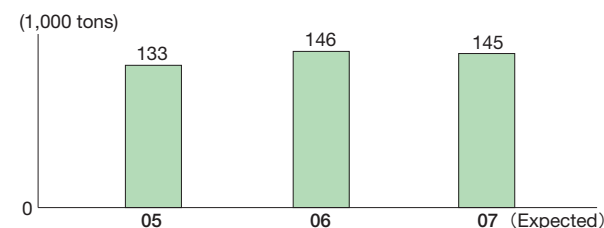
Packaging Materials

Activity 1

Proper use of packaging materials

Panasonic has been implementing the following measures for the proper use of packaging materials: to reduce the use of cardboard and foamed polystyrene materials; reuse packaging materials for transportation between its factories; adopt packaging materials made 100% from used newspapers, light-weight paper certified by the Forest Stewardship Council, and blister packs made from biomass plastics, and to improve the 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 produced outside Japan and brought into Japan and the introduction and increased sales of large-sized heavy products such as plasma TVs and tilted-drum washer/dryers, for which a lot of packaging materials are required. In response, we are making efforts to curb the increased use of packaging materials by such measures as improving the product strength and by selecting and designing appropriate buffer materials for each product item.

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



Activity 2

Measures to reduce the use of foamed polystyrene

Among our products, we use a lot of foamed polystyrene materials for Plasma TVs and tilted-drum washer/dryers. Unlike CRT TVs, plasma TVs are large in size and very thin, and wide glass sheets are used for the products. Tilted-drum washer/dryers are heavier than fully automatic washing machines and so these two product items need to be protected more than other items during transportation and storage, for which more foamed polystyrene are needed. We, however, implemented additional measures to reduce the use of foamed polystyrene for plasma TVs every time we developed a new model. As a result, the use of foamed polystyrene decreased by 27% for the 42PX600 released in 2006 compared with the use of these materials for the 42PX300 released in 2004. Also for drum-type washer/dryers, we reduced the use of foamed polystyrene by 23% for the VR1100 released in 2006 compared with the amount used for V80 released in 2003.

Our basic principle for Clean Factories (CF) is minimizing both inputs to and discharges from our factories, so as to achieve our dual aim of simultaneously reducing environmental impacts and improving economic performance, thereby achieving zero emissions in the broader sense. Working primarily on the prevention of global warming, reduction of total waste arisings, and reduction in chemical substances release/transfer, we aim to make all our factories throughout the world Clean Factories.

Fiscal 2007 Targets and Results

Basic targets

● CF Accreditation Rate: 58%

➡ **Result 78%**

Environmental performance targets

● CO₂ emissions per basic unit: 6% reduction

➡ **Result 24% reduction**

● Release/transfer of Key Reduction-target Substances: 2% reduction (from fiscal 2006)

➡ **Result 0.9% increase**

● Total waste arisings (made up of factory generated waste and revenue-generating waste) per basic unit: 12% reduction

➡ **Result 33% reduction**

● Water consumption per basic unit: 6% reduction

➡ **Result 38% reduction**

● Costs

- Global warming prevention measures: 2.33 billion yen
- Waste reduction: 7.24 billion yen
- Effective utilization of water: 0.50 billion yen

● Benefits

- Energy conservation benefit: 10.20 billion yen
- Reduction in waste treatment cost: 4.67 billion yen
- Reduction in water supply/sewage cost:* 1.60 billion yen

* Included in "Reductions in water, sewage, packaging materials, and logistics costs" in environmental accounting

Environmentally-Conscious Factories

Concept/Future activities

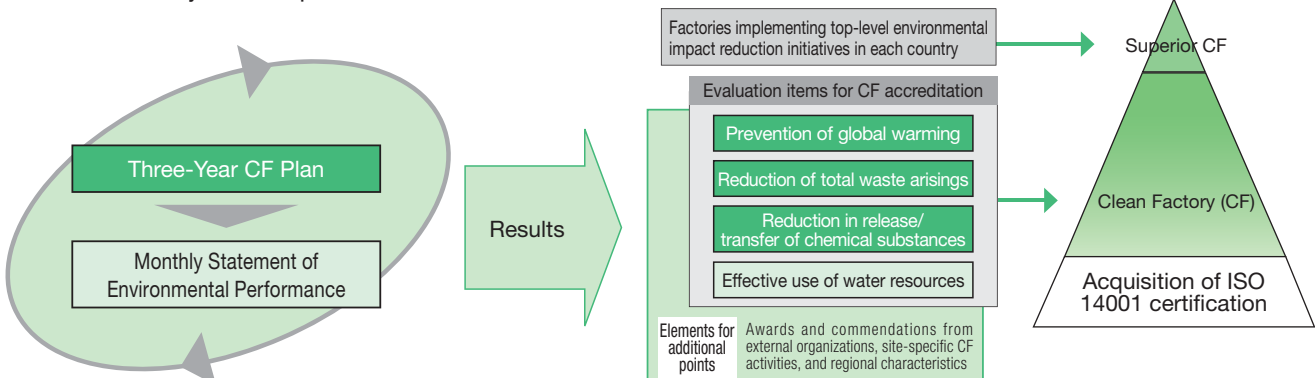
Making all our factories across the world Clean Factories

To reduce the environmental impact of our manufacturing activities, we have in place our Three-Year CF Plans for individual factories. The CF Plans stipulate measures and investment strategies concerning energy conservation, the reduction of total waste arisings, reduction in chemical substances release/transfer, and effective utilization of water.

Our Three-Year CF Plans are revised every year based on the achievements of the current year. For monitoring purposes, we collect monthly environmental performance data from our 319 factories across the world by using our own environmental information gathering system. Feedback on the analysis of the data is given to factories, business domain companies, and regional headquarters, in the form of Monthly Statement of Environmental Performance, to help them further improve and promote their CF plans and initiatives.

To improve the environmental performance of all our factories by augmenting their efforts, we established our CF Accreditation System in fiscal 2006. Under this system, which is based on the ISO 14001 Environmental Management System, we evaluate the efforts of individual plants to reduce environmental impact, as well as assessing site-specific CF initiatives. Our global target is that at least 90% of all our factories obtain CF accreditation by fiscal 2011. Ultimately, we aspire to make every single one of our factories a Clean Factory.

■ CF Accreditation System concept



78% of factories accredited as CFs

Under our CF Accreditation System, we evaluate each factory's efforts in terms of the three mandatory items of global warming prevention, reduction of total waste arising, and reduction in chemical substances release/transfer. We also incorporate a voluntary item measuring the effective use of water resources. In addition, any site-specific CF initiatives, such as greening of factory premises or the introduction of renewable energy sources, are also evaluated as merits. Further, we recognize any awards and commendations from external organizations. 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 simultaneously promote these plans. Accreditation is only valid for a single year, to encourage factories to make continuous efforts to reduce their environmental impact.

The CF Accreditation System was first introduced in fiscal 2006, and during the year its scope was limited to factories in Japan. In fiscal 2007, the scope of the system was expanded to cover overseas factories. 250 out of the 319 factories were accredited and the CF Accreditation Rate was 78%.

● Superior CFs

We recognize our CF accredited factories that have garnered some of the highest national-level awards in their country for their achievements in energy conservation, waste control, and chemicals reduction, and designate them as Superior CFs. In fiscal 2007, we certified the PanaHome Corporation's Head Office Plant and the Panasonic Wanbao Compressor (Guangzhou) Co., Ltd. as Superior CFs. Currently, 15 factories are under examination.

■ Evaluation items and indicators for CF accreditation

	Items	Indicators	Definition
Mandatory	Prevention of global warming	Energy-conservation rate	$\frac{\text{Reduction in energy consumption (converted to CO}_2\text{) attributable to energy conservation measures for the current fiscal year}}{\text{Gross energy consumption (converted to CO}_2\text{) in the previous fiscal year}}$
	Reduction of total waste arisings	Total waste arisings reduction rate	$\frac{\text{Reduction in total waste arisings (including revenue-generating waste) attributable to waste reduction measures for the current fiscal year}}{\text{Gross waste arisings (including revenue-generating waste) in previous fiscal year}}$
		Recycling rate	$\frac{\text{Recycled amount}}{\text{Recycled amount} + \text{final disposal amount}}$
	Reduction in chemical substances release/transfer	Reduction rate of release/transfer of Key Reduction-target Substances*	$1 - \frac{\text{Released/transferred amount of Key Reduction-target Substances in current fiscal year}}{\text{Released/transferred amount of Key Reduction-target Substances in the base year}}$
Voluntary	Effective use of water	Reduction rate of water consumption	$\frac{\text{Reduction in water consumption attributable to water consumption reduction measures for the current fiscal year}}{\text{Gross water consumption in previous fiscal year}}$

* See Definition of Key Reduction-target Substances (P.29).

Case Initiatives for superior CFs in fiscal 2007

● PanaHome Corporation's Head Office Plant

At the PanaHome Corporation's Head Office Plant in Shiga Prefecture, energy conservation efforts are being made, centering on three objectives: (1) pursuit of efficient manufacturing; (2) effective and efficient use of energy; and (3) periodic checks and maintenance. With the aim of pursuing efficient manufacturing, we consolidated the four facilities that were dispersed throughout the premises into three facilities. Moreover, we previously produced roof and floor panels in batches by lot for each specification. The finished panels have conventionally been moved to a product delivery center, stored, and put into a package for each house, and then delivered to the construction site. We created a new system whereby these panels are produced per house from the very start so as to minimize energy loss by eliminating unnecessary movement and shipment. As a result, the factory reduced annual energy consumption by 327 kl (crude oil equivalent). As for periodic checks and maintenance, we conduct energy conservation diagnoses and air leak reduction activities on a regular basis. This has enabled us to maximize and maintain energy efficiency. The Fiscal 2007 Energy Management Best Practice Factory Award was presented to the factory by the Minister of Economy, Trade and Industry, in recognition of these energy reduction initiatives.

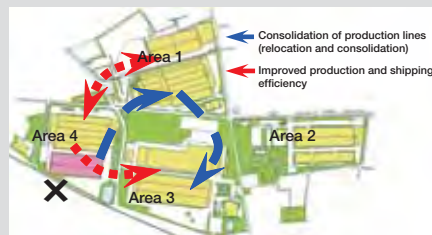


Diagram on reorganization of production facilities at PanaHome Head Office Plant

● Panasonic Wanbao Compressor (Guangzhou) Co., Ltd.

Panasonic Wanbao Compressor (Guangzhou) Co., Ltd. (PWCG) in China engages in company-wide initiatives to reduce environmental impact, such as reduction of lead, NOx, and sulfur dioxide emissions, reduction of steel usage realized by scrap iron recycling, and introduction of energy-efficient facilities. As a result, PWCG has been recognized as an industry leader in China in terms of overall energy efficiency, water use efficiency, pollutant emissions, and waste recycling. The company had the honor of being awarded the "National Environment-Friendly Enterprise" by the State Environment Protection Administration of China.

Factory Energy Conservation

Concept

Reducing global CO₂ emissions through our Three-Year Plan

Greenhouse gases (GHGs) typically emitted from our operations comprise CO₂, together with Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs) and Sulfur Hexafluoride (SF₆). Of these gases, CO₂ emitted through energy consumption accounts for 92% of the total emissions. We have set a target for fiscal 2011 to reduce CO₂ emissions per basic unit*¹ by 10% from fiscal 2001 levels, on a global basis. Additionally in Japan, we are simultaneously seeking to achieve the target*² set for fiscal 2011 by the four electrical and electronics-related associations*³ to reduce CO₂ emissions per unit of actual production*⁴ by 28% from 1991 levels. In fiscal 2007, we achieved a 24% reduction (from fiscal 2001 level) on a global basis and a 35% reduction (from 1991 levels) in Japan, accomplishing both our targets. Efforts to reduce CO₂ emissions from factories are also being made based on the Three-Year Energy Conservation Plans formulated by each business site, which are revised annually. We have introduced our own energy-conservation rate as an indicator of the effectiveness of our corporate efforts.

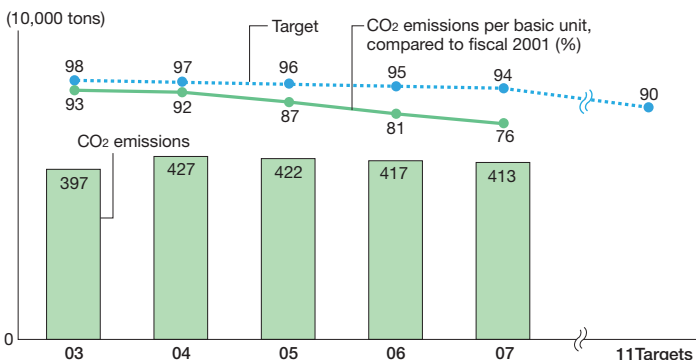
We intend to step up our energy conservation activities, particularly in the business segments and regions that exhibit an increase of CO₂ emissions.

*1 Basic unit=CO₂ emissions / (consolidated sales / Bank of Japan's corporate goods price index (electrical machinery and equipment))

*2 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 equipment)

CO₂ emissions per basic unit



* The GHG protocol's CO₂ emissions factors for each country are used for electricity purchased outside Japan.

* The factors related to fuels are based on the Guidelines for Calculating Greenhouse Gas Emissions from Businesses (Draft 1.6) by the Ministry of the Environment, Japan.

Energy-conservation rate* targets and results (fiscal 2007)

	Target	Result
Product-assembly segment (Assembly and manufacturing)	3.5%	5.0%
Components and device segment (Components and semiconductors)	7.0%	6.8%

* Amount of energy consumption reduced in the current fiscal year (converted to CO₂) / Amount of energy consumption in the previous fiscal year (converted to CO₂)

Activity 1

Promoting energy conservation initiatives in the device segment and in China

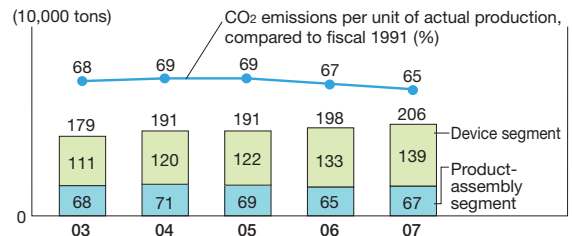
Our energy consumption has increased in the device segment in Japan, which manufactures semiconductors and plasma display panels, and in China where coal is the primary energy source. These two elements account for a significant percentage of our total CO₂ emissions, and therefore are subject to priority reduction initiatives. For device factories in Japan, the specialized technologies of our in-house energy service company (ESCO) and the Production Technology division are being fully utilized. The factories receive focused diagnoses as a joint project with model factories. Successful initiatives are then implemented at other device factories. In terms of measures for overseas factories, especially those in China, activities have been conducted under a Three-Year Plan starting from fiscal 2005 to establish an effective energy management system.

In fiscal 2007, improvement model cases were collected through an in-house energy conservation competition. From 213 applications, the best case was commended at a presentation meeting. All the model cases are incorporated in a database and are available on the intranet.



Exhaust heat recovery system of Beijing Matsushita Color CRT Co., Ltd.

CO₂ emissions per unit of actual production (Japan)



* The factors used for purchased electricity are the average of all types of power at the point of use, reported by the Federation of Electric Power Companies of Japan.

* CO₂ emissions factors for individual fiscal years are: 0.410 kg CO₂/kWh (fiscal 1991), 0.407 kg CO₂/kWh (fiscal 2003), 0.436 kg CO₂/kWh (fiscal 2004), 0.421 kg CO₂/kWh (fiscal 2005), and 0.425 kg CO₂/kWh (fiscal 2006). The value for fiscal 2006 is used for estimating the level of fiscal 2007.

* The calculation method for CO₂ emissions per unit of actual production (Japan) was changed. The effect of the fiscal 2002's revision of in-house system was not reflected in fiscal 1991. Therefore, figures for past fiscal years were also changed. In comparison with the previous calculation method, basic unit indexes have been lowered by about 16% in each year.

Promoting factory energy conservation as CDM* projects

Taking advantage of our many factories in China and Southeast Asia, we are promoting efforts to reduce CO₂ emissions on a global level, by employing the Clean Development Mechanism (CDM). In fiscal 2005, we began our energy conservation initiatives at factories in Malaysia to be accredited 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.

We also plan to employ this mechanism in China and Southeast Asian countries.

* 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.

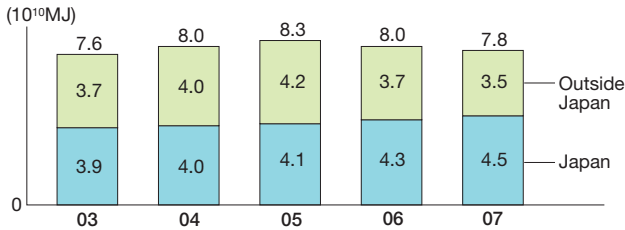
Visualizing energy losses

In order to control energy consumption, within our Environmental Management System, we are focusing on measurement assessment, which incorporates energy management techniques stipulated in the Energy Conservation Law. Using this method we can visualize energy consumption with specialist instruments, revealing energy losses that we can compare with legal criteria, thereby enabling us to take appropriate remedial measures.

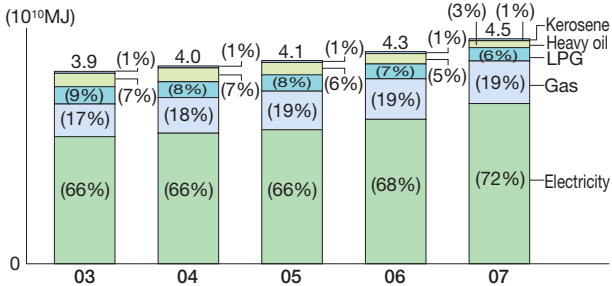
After taking such measures, the improved levels are used in developing management standards and assessment criteria for new equipment.

Data

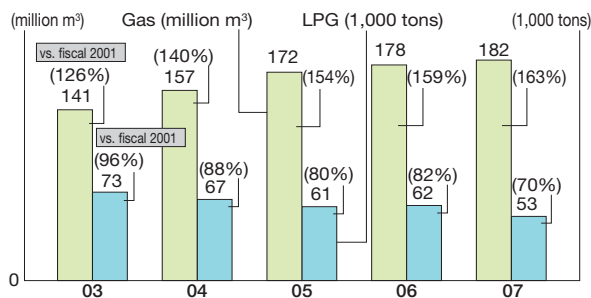
■ Energy consumption (global)



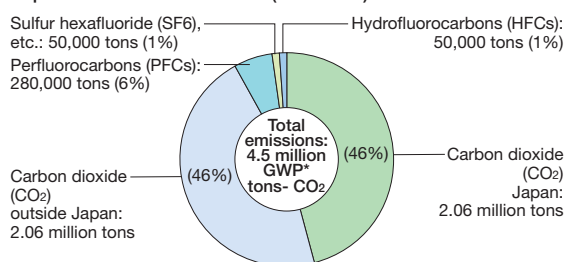
■ Energy consumption breakdown by fuel (Japan)



■ Gas/LPG consumption (Japan)

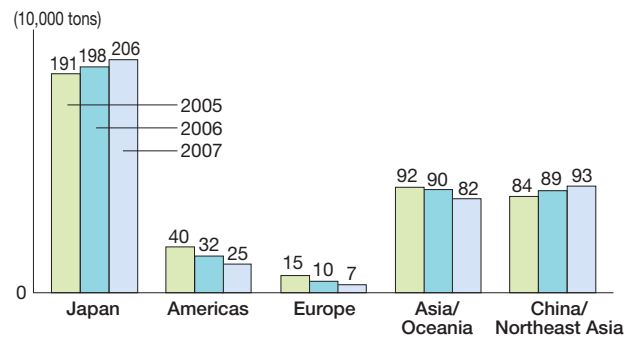


■ Composition of GHG emissions (tons-CO₂)

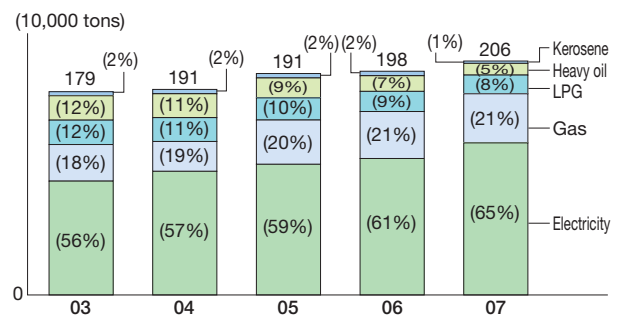


* GWP: Global Warming Potential, conversion of each GHG's greenhouse effect to CO₂

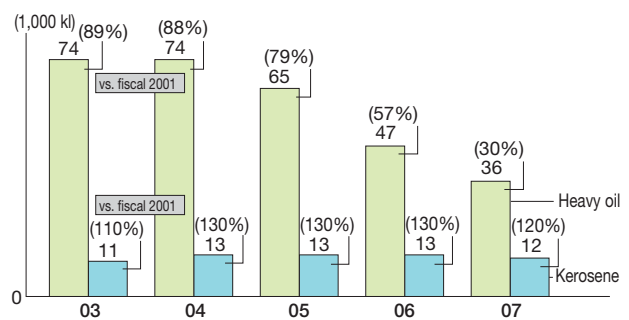
■ CO₂ emissions (by region)



■ CO₂ emissions breakdown by fuel (Japan)



■ Heavy oil/kerosene consumption (Japan)



■ Renewable energy consumption (Japan)

Fiscal 2007	64,000 kWh
-------------	------------

Chemical Substance Management at Factories

Concept

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 preparing 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.* This resulted in our Rank Guidelines Version 2.1, covering 509 chemical substance groups. 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 (546 substance groups) 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 PRTR Law and our own hazard assessments. In Version 3, substances requiring "reduction" were redefined as those to "Reduce the amount released/transferred" from the previous definition of those to "Reduce the amount used." Substances requiring "management" were redefined as those necessary to "Manage the amount used, released/transferred, and review the rankings regularly" from previous definition of "Reduce the amount released/transferred."

* Hazard assessment: An assessment system to classify chemical substances into ranks, based on cancer-causing assessments by various international organizations, the U.S. and Japan

Chemical Substances Management Rank Guidelines Version 3 (for Factories)

Rank	Definition	Substance group (Substance)
Prohibition	Prohibit use	60 (569)
Reduction	Reduce the amount released/transferred	193 (794)
Management	Manage the amount used, released/transferred, and review rankings regularly	293 (2,123)
Total: 546 substance groups (3,486 substances)		

panasonic.net/eco/cf/

Activity

Reduction of Key Reduction-Target Substances

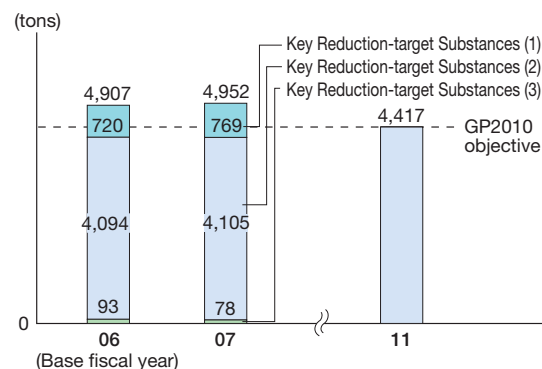
In fiscal 2007, 368 substances were selected as our Key Reduction-target Substances that have a particular impact on the environment (substances whose amounts released/transferred are significant and substances that contribute

to 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. The substances other than Key Reduction-target Substances will be managed in a conventional manner, based on the definitions in the Rank Guidelines. In fiscal 2007, we reduced the use of such substances through the development of new production technologies and a review of manufacturing processes. This resulted in the reduction of the amounts released/transferred. To reduce volatile organic compounds (VOCs) whose amounts released/transferred are particularly large among the Key Reduction-target Substances, we replaced solvent-based materials with water-based materials wherever possible, and switched solvent coating to powder coating. However, due to the increase in its use as a result of production growth, the amount released/transferred in fiscal 2007 increased by 0.9% from the previous year. Based on our Three-Year Chemical Substances Reduction Plan, we will step up our efforts to reduce the use of chemicals by formulating and implementing site-specific plans.

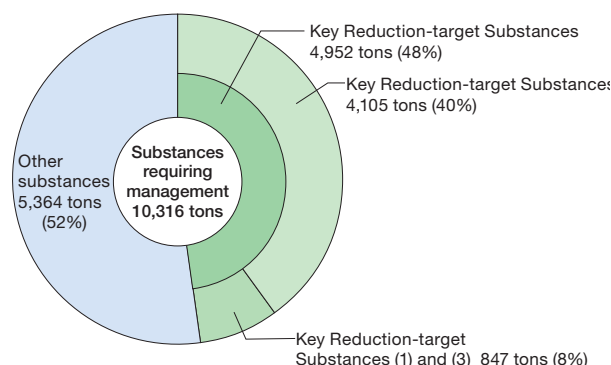
Definition of Key Reduction-Target Substances (368 substances)

- (1) The 10 groups of substances recording the highest levels of release/transfer in the Pollutant Release and Transfer Register survey (Japan, fiscal 2003)
The 10 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) The 5 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



Breakdown of release/transfer of substances requiring management



Case Reduction of chemicals use in production facility improvement

Kobe Plant of Information Technology Products Division of Panasonic AVC Networks Company engaged in domestic integrated manufacturing of mobile PCs. Previously, partial soldering was required for substrates for PCs and it was difficult to blow flux only to the required areas. The process also incurred significant waste. To address this issue, we developed automated soldering robots that incorporated the techniques and expertise of skilled workers and introduced them throughout the company. This resulted in a reduction of electricity (24 kWh to 1 kWh), a reduction in the number of maintenance and inspection processes, and an annual reduction of 356 kg in the use of chemical substances, such as isopropyl alcohol.



Automated soldering robots

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

(Units: tons; numbers are rounded to one decimal place)

Chemical Substances	PRTR category	Release/transfer	
		Fiscal 2006	Fiscal 2007
Isopropyl alcohol		1317.9	1351.2
Methyl ethyl ketone		425.6	404.1
Toluene	1	392.4	337.6
Ethanol		235.1	334.2
Acetone		214.7	316.7
n-butyl acetate		399.8	316.3
Xylene	1	412.6	218.0
Methanol		128.2	213.9
Propylene glycol monomethyl ether		79.9	147.3
Styrene	1	162.3	143.9
n-butanol		93.3	129.7
Ethyl acetate		92.1	70.2
Methyl isobutyl ketone		61.1	53.5
Cyclohexanone		33.2	35.9
Ethyl benzene	1	16.7	22.9
Dichloromethane	1	23.9	7.3
n-heptane		4.8	2.2
Tetrahydrofuran		0.4	0.5
Chloroform	1	0.0	0.0
Trichloroethylene	1	0.2	0.0
Total		4094.4	4105.4

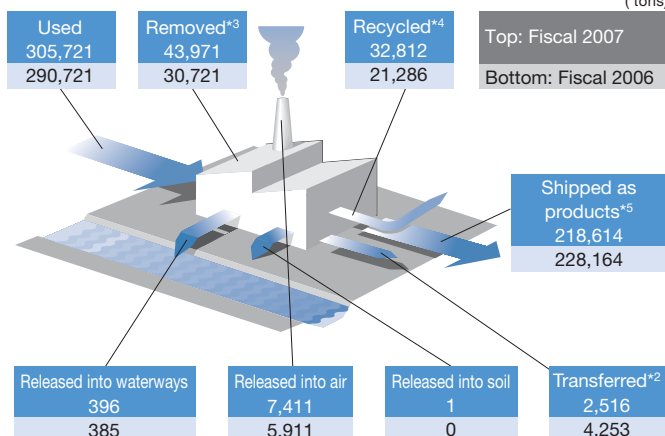
Results of surveys on substances requiring management, conducted by Panasonic and its group subsidiaries

(In tons; numbers are rounded to one decimal place)

Chemical substances	PRTR category	Handled	Total amounts released and transferred	Released				Transferred*2	Removed*3	Recycled*4	Shipped as products*5
				Released into air	Released into public waterways	Released into soil	Landfill				
Carbon dioxide		2,424.1	2,424.0	2,423.8	0.0	0.0	0.0	0.2	0.0	0.1	0.0
Isopropyl alcohol		2,655.2	1,351.2	1,162.5	1.9	0.0	0.0	183.5	168.7	1,034.1	104.5
Silica		14,340.8	523.7	12.6	0.0	0.0	0.0	511.1	1.6	2,712.3	11,103.1
Methyl ethyl ketone		5,584.1	404.1	366.1	0.0	0.0	0.0	38.0	4,668.3	374.2	137.4
Hydrochloric acid		10,894.0	403.2	76.9	3.9	0.0	0.0	322.5	4,428.2	5,844.5	218.1
Toluene	1	1,835.1	337.6	308.9	4.1	0.0	0.0	24.7	487.1	845.1	165.3
Ethanol		499.4	334.2	308.0	0.0	0.0	0.0	26.2	47.6	90.3	27.3
Acetone		1,343.5	316.7	280.7	0.0	0.0	0.0	36.1	317.5	581.3	128.0
n-butyl acetate		819.4	316.3	310.4	0.0	0.0	0.0	6.0	259.1	220.9	23.0
Manganese and its compounds	1	34,663.7	258.1	6.9	0.6	0.6	0.0	249.9	0.8	334.5	34,070.3
Xylenes	1	363.4	228.1	202.0	0.0	0.0	0.0	26.1	86.3	20.6	28.4
Methanol		6,575.2	213.9	188.0	0.0	0.0	0.0	32.2	3,176.7	743.0	2,435.3
N,N-Dimethylformamide	1	3,538.9	186.4	172.1	2.6	0.0	0.0	11.8	3,081.2	193.4	77.9
Isobutane		242.1	164.4	164.1	0.0	0.0	0.0	0.3	0.0	0.0	77.6
Sulfuric acid		17,806.8	151.4	22.5	116.1	0.0	0.0	12.9	9,658.8	2,168.5	5,828.2
Propylene glycol monoethyl ether		2,254.3	147.3	141.1	0.0	0.0	0.0	6.2	1,742.4	324.5	40.1
Styrene	1	5,998.6	143.9	135.3	0.0	0.0	0.0	8.5	170.3	44.0	5,640.4
Boron and its compounds	1	3,189.0	141.0	0.4	4.5	0.0	0.0	136.1	0.7	1,153.8	1,893.5
Calcium hydrate		4,711.0	132.1	0.0	66.9	0.0	0.0	65.2	3,646.5	684.8	247.5
n-butanol		289.4	129.7	129.2	0.0	0.0	0.0	0.5	11.0	43.7	105.0
Other PRTR substances		92,080.5	585.8	223.9	86.0	0.0	0.0	286.3	1,079.2	5,915.2	84,489.9
Other substances		93,612.6	1,422.6	775.5	109.7	0.0	0.0	532.1	10,938.8	9,483.5	71,773.0
Total		305,721.1	10,315.6	7,410.9	396.3	0.6	0.0	2,516.2	43,970.9	32,812.3	218,614.0

Material balance of substances *1 requiring management (Japan)

(tons)



*1 "Substances" include those listed in the Matsushita Group Chemical Substances Management Rank Guidelines (Version 3) 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.

*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 (under the Waste Management Law) and any obligatory return recycling under contract. (Transferred amounts differ from those reported under the PRTR Law.)

*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

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 by 20% by fiscal 2011 from 2001 levels. As in our efforts for global warming gas reduction, we have taken into account the price index in our consolidated sales figures of basic units since fiscal 2007. We aim to achieve zero waste emissions that oblige us to attain a greater than 99% recycling rate, as a part of our efforts to reduce the mass of final disposal to close to zero through recycling.

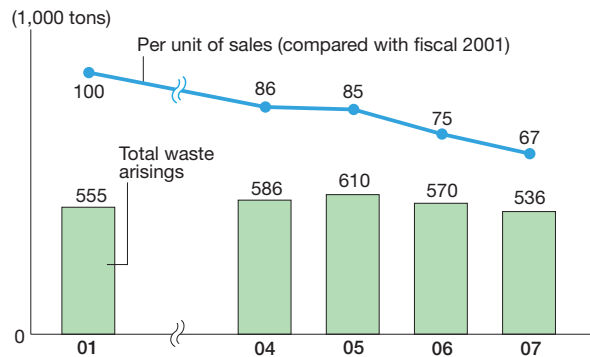
* Total waste arisings / (consolidated sales / Bank of Japan's corporate goods price index (electrical equipment))

Definition of the zero emission

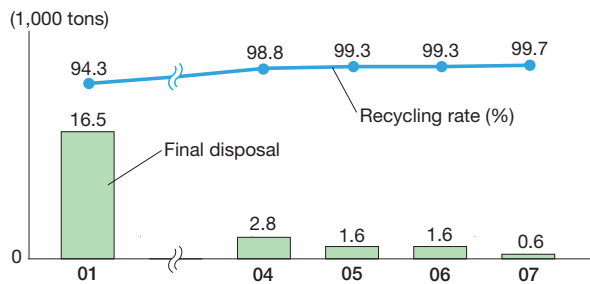
A recycling rate of at least 99 % since fiscal 2006 (at least 98 % up to fiscal 2005)

$$\text{Recycling rate} = \frac{\text{Mass of recycled resource}}{\text{Mass of recycled resource} + \text{mass of final disposal}}$$

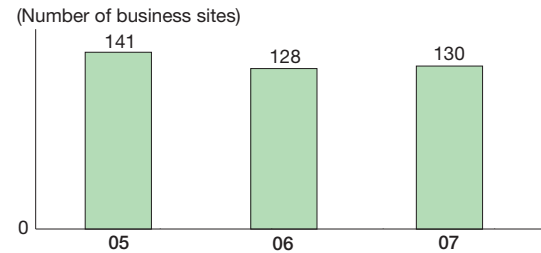
Total waste arisings (made up of revenue-generating waste and factory generated waste) and total waste arisings per unit of sales



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



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



* In fiscal 2006, the definition of zero emissions was changed from achieving a 98% recycling rate to achieving a 99% recycling rate.

Activity 1

Reducing total global waste arisings by 5%

We achieved a 33% reduction in total waste arisings per unit of sales relative to the fiscal 2001 level against our target of 12%. Absolute total waste arisings increased in Japan due to full-fledged operations at the Amagasaki plant of Matsushita Plasma Display Co., Ltd., while it decreased in Asia and Oceania due to the closure of cathode-ray tube factories and in China and Northeast Asia through packaging material rationalization efforts. These measures resulted in a total reduction of waste arisings by about 14,000 tons. As a result, overall global waste arisings decreased by 5% from the fiscal 2006 level.

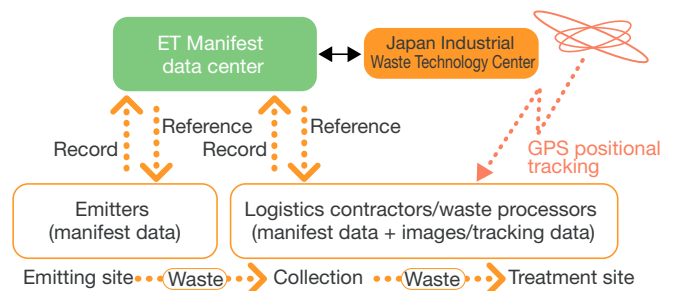
Activity 2

IT-based waste management

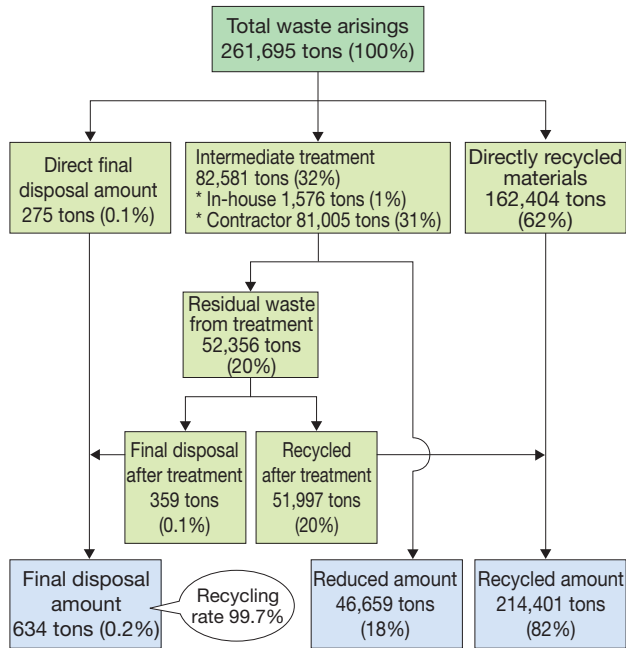
The ET Manifest system uses a digital industrial waste management table (a manifest) and enables us to register and store data in the manifest in a database for integrated management. With the cooperation of waste disposers and collection and transportation contractors, and by using GPS, the system issues an electronic manifest* that allows us to monitor the entire process of industrial waste disposal through transport data and visual representations. The system was introduced into all Panasonic's 92 manufacturing sites in Japan.

* Electronic manifest: Ledger system for industrial waste management that uses digital data, operated by Japan Industrial Waste Technology Center, in compliance with the Waste Management Law.

ET Manifest system for industrial wastes



■ Treatment of total waste arisings (Japan)



* Including Matsushita Electric Works, Ltd. and PanaHome Corporation

■ Breakdown of total waste arisings (Japan) (tons)

Items	Waste arisings amount	Recycled resources amount	Final disposal amount
Metal	64,142	60,462	16
Acids	54,074	47,628	5
Plastics	38,066	27,372	187
Sludge	24,120	20,323	74
Paper	25,575	21,784	66
Wood	16,297	13,322	38
Alkalis	12,763	4,075	6
Glass/ceramics	11,415	6,562	168
Oil	10,026	8,159	58
Others	5,217	4,715	16
Total	261,695	214,401	634

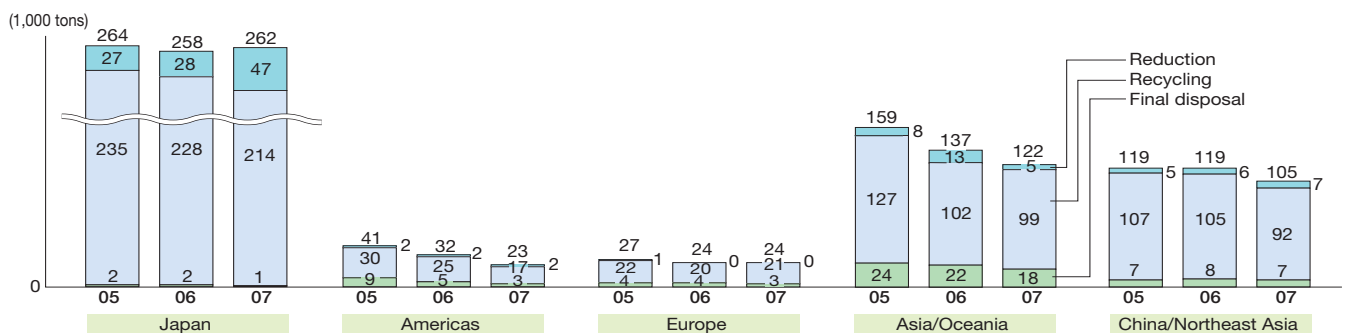
■ Amount of in-house circulating resources (tons)

Amount of in-house recycling*1	4,721
Amount of recycling after in-house intermediate treatment*1	2,225
Amount of in-house heat recovery*2	0

*1 Amount of internally reused resources

*2 Amount of internally heat-recovered resources

■ Breakdown of total waste arisings (by region)



Effective Use of Water Resources

Concept/activity

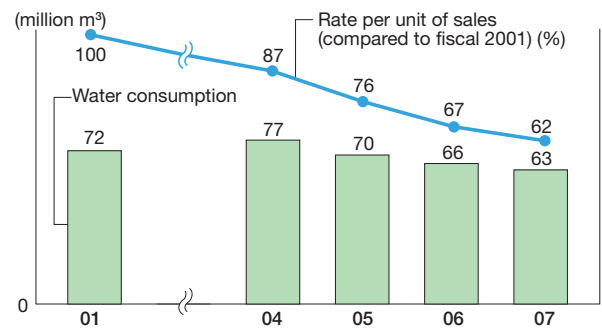
Reducing global water consumption by 4%

In fiscal 2007, we reduced water consumption per unit of sales* by 38% from the fiscal 2001 level against our target of 6%.

Located in China, where there is a shortage of water resources, Beijing Matsushita Color CRT Co., Ltd. reduced water consumption by 24% from 2006 levels, by introducing an advanced water treatment system. This achievement in China contributed to a reduction of water consumption on a global basis by 4% from the fiscal 2006 level. Although reduction of water consumption is categorized as a voluntary item under CF Accreditation system, we encourage each business site to set its own water-reduction targets, based on regional characteristics.

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

■ Water consumption and rate per unit of sales



■ Water consumption by region (10,000 m³)

Region	Municipal water/ industrial water	Rivers/lakes	Groundwater	Total
Japan	1,205	19	3,057	4,281
Americas	94	0	14	108
Europe	19	0	42	61
Asia/Oceania	862	0	60	921
China/Northeast Asia	952	0	15	968
Total	3,132	19	3,189	6,339

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 addition, individual factories have set voluntary standards that are even more stringent than legally-required levels. If we ever fail to meet the legal criteria, we immediately report this to the relevant authorities and take corrective and preventive measures.

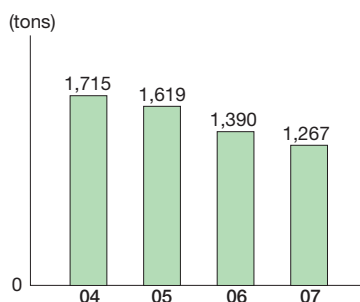
■ Cases in which pollutant levels exceeded legal criteria

Region	Air	Water quality	Noise	Odor	Waste	Total
Japan	10	0	2	0	0	12
Outside Japan	0	0	0	0	1	1
Total	10	0	2	0	1	13

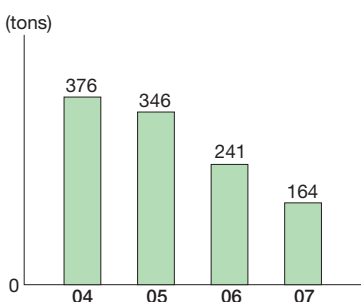
■ Impact on the air and public waterways (Japan)

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

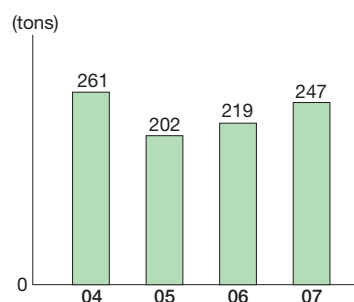
NOx emissions (air)



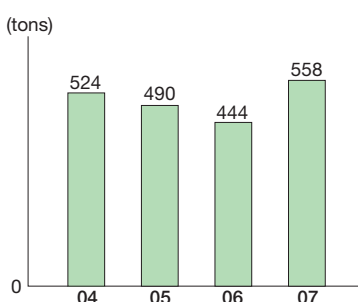
SOx emissions (air)



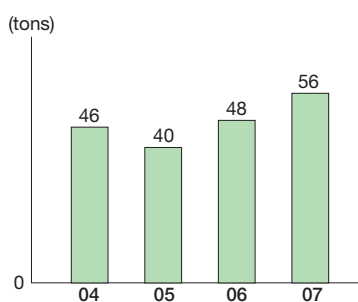
COD pollution (public waterways)



Nitrogen pollution (public waterways)



Phosphorus pollution (public waterways)



■ Impact on the air and public waterways (by region, in fiscal 2007)

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

Regions	NOx emissions	SOx emissions	COD pollution	Nitrogen pollution	Phosphorus pollution
Japan	1,267	164	247	558	56
Americas	3	2	1	0	0
Europe	16	0	6	3	0
Asia/Oceania	151	376	115	0	0
China/Northeast Asia	394	47	547	12	1
Total	1,830	589	916	573	57

Case Panasonic Battery (Shanghai) Co., Ltd. in China discharged wastewater that contained pollutant levels above the statutory limits

In October 2006, Nanfang Weekly, a leading weekly magazine in China, unveiled a list of approx. 2,700 companies, including Panasonic Battery (Shanghai) Co., Ltd., that violated environmental preservation laws and regulations. The list detailed those companies that had violated environment-related laws and regulations by local environmental preservation authorities in China, and that had been published on authority websites between 2004 and 2006.

Panasonic Battery was described as a company that “was not able to ensure the normal functioning of its wastewater treatment facilities and discharged wastewater that exceeded statutory safety levels.” This referred to an incident in October 2005, in which the company discharged wastewater whose COD level temporarily recorded 145mg/l against the statutory 100mg/l level. This was a result of mistakenly releasing wastewater to the Environment without prior processing in the wastewater treatment system, during aqueous cleaning of finished battery storage trays—which was not the company’s normal practice. The environmental preservation authorities in Shanghai levied fines on the company.

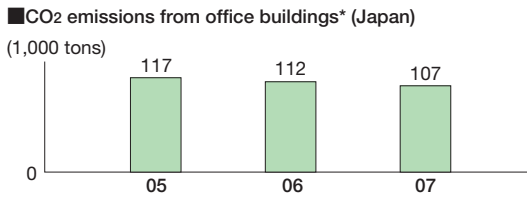
The company immediately took measures to prevent the recurrence of such irregularities. It established a special cleaning area, changed drainage channels, and retrained employees. Panasonic took special notice of this situation and overhauled the environmental management practices of all our factories throughout the world.

Initiatives at Offices

Concept

Environmentally-conscious initiatives in the office

As a part of environmentally-conscious activities 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 37,000 IP phones over the past two years, which significantly save energy consumption through consolidating switchboards. This project will be completed in the next two years. We have also introduced digital imaging systems that link to our information systems in order to reduce paper and energy consumption. Moreover, the corporate-wide introduction of an Internet-based meeting system has enabled us to reduce CO2 emissions in the transportation sector involving the movement of personnel.



* Including research laboratories, development centers, and training institutes.

Case Initiative at Matsushita Electric Works's head office building in Tokyo

The head office building of Matsushita Electric Works, Ltd. in Shiodome, Tokyo, was constructed under the concept of a "century-lifespan" building, and efforts are made to achieve the target of a 15% reduction in energy consumption from 2004 levels (at the time of construction). For environmental preservation reasons, the control and operation of the building's lighting and air-conditioning is being continuously fine-tuned and improved based on detailed use data, for the purposes of energy-conservation. We conducted energy conservation promotion activities supported by operators and external experts, and operated facilities more efficiently by employing a common "visualization" analysis tool. As a result, we cut energy costs by 44.38 million yen and reduced energy consumption by 13.8%, with an investment of 36.7 million yen.



Matsushita Electric Works head office building in Shiodome, Tokyo

* Energy consumption is minimized by adjusting air-conditioning, lighting facilities, equipment, etc. in advance, in tune with changes in how the building is used.

Encouraging Green Purchasing by revising in-house criteria and upgrading systems

We believe that as an electronic products producer it is our responsibility to lead activities towards the creation of a sustainable society. Therefore, we are encouraging staff to purchase more environmentally-conscious 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 supplies, company vehicles, and fixtures and fittings. Our purchasing database lists office supplies that meets the criteria, ensuring the staff can select environmentally-conscious items.

In fiscal 2007, we reviewed our previous initiatives, revised the criteria, and added new criteria to include the categories of office automation equipment and home appliances. We stepped up a system to promote Green Purchasing by establishing a corporate-wide body to propel the endeavor. We also created Green Purchasing educational content within the framework of our employee e-learning system.

In fiscal 2008, we will expand our Green Purchasing product lists and raise employees' awareness of the importance of Green Purchasing.

Green Purchasing results (Fiscal 2007 in Japan) (million yen)

Category	Item	Amount in Green Purchasing items	Amount in non-Green Purchasing items	Total	Green Purchasing rate
Paper	Copy paper	109	0	109	100%
Office supplies	Notebooks, writing instruments, files, etc.	158	52	210	75%
Office automation equipment	Printers	46	0	46	100%
	PCs	1,688	0	1,688	100%

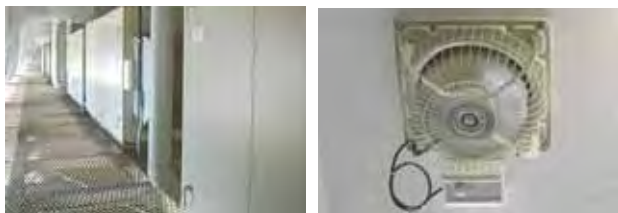
Initiatives for Clean Factories

Energy conservation

●Achieving a 15% reduction by careful management of factory facilities

Panasonic Shikoku Electronics Co., Ltd., which produces switching power supplies and non-shrinking high density package substrates in the Ozu district, established a three-year energy conservation plan. The company also reviews its energy map (a record of the amount of electricity used by equipment and the time of usage) and formulates a new equipment plan on an annual basis.

As a result of reducing the number of clean rooms and thereby the number of air conditioners used, and by reducing the amount of air used for ventilation by lessening the load for rooms kept at a constant temperature, it became possible for the company to manage its facilities in response to changes in operational status. In this way it was able to reduce its energy use per basic unit by 15% over three years. In recognition of these practical energy conservation efforts, the company received a prize from the Director-General of the Agency for Natural Resources and Energy as one of the factories commended for their excellent energy use in fiscal 2007.



Air conditioner for room kept at constant temperature Heat exhaustion from the room

Energy conservation

●Achieving a 5% reduction in the use of steam by using waste heat

Beijing, Matsushita Color CRT Co., Ltd. (BMCC) produces cathode ray tubes for TVs. In the past, the company heated the pure water used in the production process through heat exchange using steam, but has now started to use the waste heat from air compressors as a heat source for raising the temperature of the water. As a result, the company reduced the use of steam by 11,333 tons a year, and per unit production by 5% by utilizing the waste heat from the air compressors and also from the heating furnaces. The company received a prize at the internal energy conservation competition held by the Group for its sites in China in fiscal 2007



Waste heat recovery system

Energy conservation

●Expansion of CDM initiatives in Southeast Asia and China

Panasonic is promoting reduction in its global CO₂ emissions through the Clean Development Mechanism (CDM),* based on the recognition that it has many factories especially in Asia and China.

In fiscal 2005, we assessed the achievements in energy conservation at 10 factories participating in CDM initiatives in Malaysia, where we have our second largest number of factories after China. Based on the results, we documented 26 energy conservation measures that met the conditions for CDM (including the replacement of air compressors, boilers, and similar equipment with more efficient devices) in project design documents (PDD) and filed them for approval as CDM projects. The measures were eventually approved as CDM projects that would contribute to the sustainable development of a developing country and that would contribute to greater reductions than ordinary measures (known as “additionality”) by the Japanese government in February 2006, by the Malaysian government in July of the same year, and by the United Nations in March 2007. These CDM initiatives should reduce CO₂ emissions by approximately 8,100 tons a year. → P.28



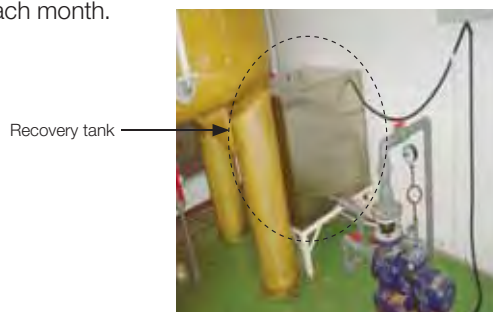
Japanese engineer in discussions with a senior local employee at Panasonic Compressor Malaysia Sdn. Bhd

* Under CDM, a developed country and a developing country implement a greenhouse gas reduction project together in the developing country and the developed country can gain emission rights from the reductions achieved.

Effective use of water

●Recycling of water

Panasonic Electric Works Electronic Materials (Guangzhou) Co., Ltd. manufactures multi-layer printed boards in China. This company recycles wastewater for use as cleaning water. In the past, wastewater containing residue after filtered by a membrane was drained into the sewage system, but now, the wastewater is recovered into a tank and saved in a reservoir for water recycling. As a result, approximately 500 tons of water are being saved each month.



Management of chemical substances

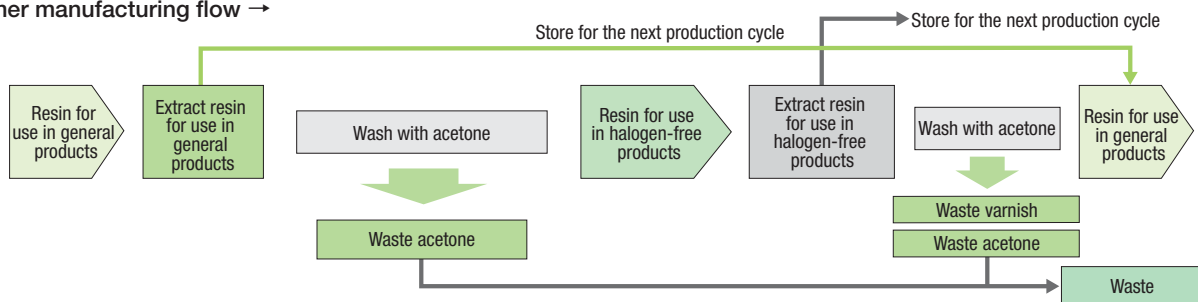
●Reduction in the use of solvents and waste reduction by improving the manufacturing process

Yokkaichi Matsushita Electric Works, Ltd. looked into the causes of waste generation and material loss in its manufacturing process to reduce its environmental impact at the manufacturing stage.

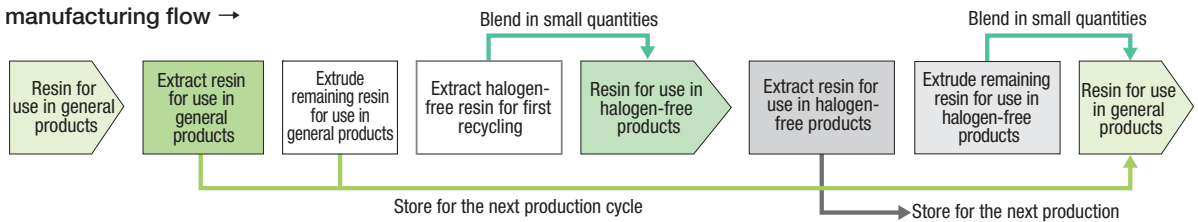
In the conventional process, waste acetone was generated when it was used to wash and remove remaining varnish when replacing resin for use in general products with resin for use in halogen-free products. However, thorough examinations showed that the

presence of a small amount of varnish will still assure the quality and properties of products. Thus, there is no need for acetone to be used to remove remaining varnish. Also, the company confirmed that the blending a small amount of extracted remaining varnish, which used to be disposed of, in the following manufacturing process would not cause any problem in the quality and properties of the products. Through these efforts, the company was able to reduce the use of acetone by 12.8 tons and the weight of remaining varnish by 4.8 tons on an annual basis.

Former manufacturing flow →



New manufacturing flow →



Reduction of waste

●Vigorous reduction in the use of cardboard packaging

Panasonic AVC Networks Company manufactures TVs and audio equipment in the Kadoma district. The company is reducing the use of cardboard boxes as packaging materials substantially in the district.

The company replaced cardboard boxes used for delivery of parts with returnable plastic boxes, which can be used repeatedly, in cooperation with parts manufacturers and partner companies. And the use of recyclable stretchable films was promoted. As a result, paper waste was reduced by 2.9 tons annually.



Previously delivered in cardboard boxes



Replacement with returnable plastic boxes



Use of stretchable film

Reduction of waste

●Reusing wooden pallets for the transportation of refrigerators

PT Panasonic Manufacturing Indonesia (PMI) manufactures refrigerators, air conditioners, and other products.

The company sorts the wooden pallets used for the transportation of parts by manufacturer and size, and then returns them to each manufacturer or processes them for use as a strengthening part of packaging materials for the transportation of refrigerators. In this way, the recycling of pallets has been significantly improved.



Recovered wooden pallets



Pallet to which cardboard and cushioning materials are attached for use in transportation of refrigerators

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

Targets and Results

Target by category

- Establish recycling systems for all home appliances by fiscal 2011
- ➡ **Results** (Japan): Increased recycling rates of four categories of home appliances by 14 points compared with fiscal 2002

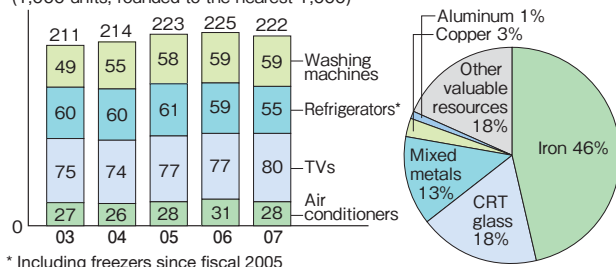
Recycling Waste Electronic Products

Concept

Activities in compliance with environmental laws and regulations

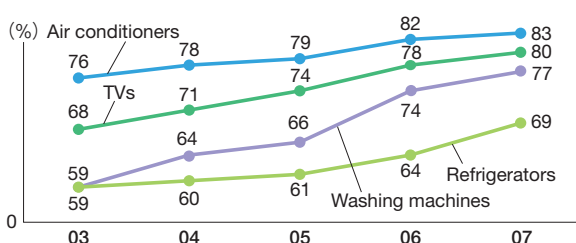
With the objective of effectively utilizing natural resources and preventing environmental pollution, a growing number of laws concerning recycling have been enacted and come into effect in the various countries of the world. In Japan, the Law for Recycling of Specified Kinds of Home Appliances and the 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's basic policy toward waste electronic products recycling is not only proactive compliance with country-specific recycling legislation, but also a willingness to take both effectiveness and efficiency into consideration, corresponding to the local situation of recycling infrastructure, etc. when developing collection and recycling systems. In this way Panasonic is tackling waste electronic products recycling in a positive manner as well as Design for Environment aiming for easy-recycling.

■ Number of products recycled (Japan) (1,000 units, rounded to the nearest 1,000)



* Including freezers since fiscal 2005

■ Recycling rates of waste specified kinds of home appliances

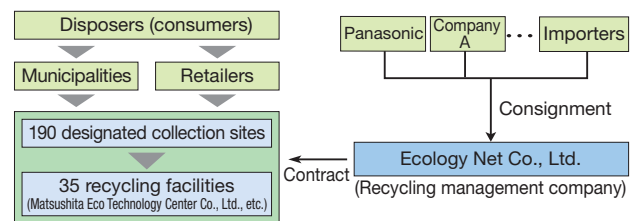


Promoting efficient recycling of home appliances through effective use of the existing infrastructure

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 manufacturers in the same group which concluded contracts. In fiscal 2007 Matsushita Eco Technology Center Co., Ltd. (METEC) recycled approximately 670,000 units. Recycling technologies developed at METEC are shared by the recycling facilities of the Group. Panasonic, in turn, makes use of the data obtained by METEC in researching and designing products that are easy to recycle. Another major activity of METEC is making its facilities open to the public, and by doing so, METEC has attracted about 58,000 visitors from all around the world during the six years since its inception.

panasonic.co.jp/eco/metec/en/

■ Panasonic's home appliance recycling system in Japan



● Recycling of specified kinds of home appliances

As a result of our recycling activities in fiscal 2007 (April 1, 2006 to March 31, 2007) based on the Law for Recycling of Specified Kinds of Home Appliances, 2,220 thousand of our products across four types of specified home appliances were recycled at our recycling facilities nationwide, a decrease of 2% from fiscal 2006. The weight of recycled products was 68,000 tons, an increase of 3% over fiscal 2006. The recycling rate rose by between 1 point and 5 points over the previous fiscal year, due to the increased plastic recovery rate.

■ Summary of the recycling and collection of specified kinds of home appliances (overall total)

	Air conditioners	TVs	Refrigerators/freezers	Washing machines
Units collected*1 (thousand units)	277	807	548	591
Units for recycling*1*2 (thousand units)	278	798	546	594
Weight for recycling*2 (tons)	12,173	23,940	33,045	19,519
Weight recycled (tons)	10,169	19,325	22,928	15,152
Recycling rate (%)	83	80	69	77

*1 Units collected at designated collection sites and units for recycling do not include units for which the treating manufacturers or other details were not identified due to improper descriptions in management slips or other reasons.

*2 Units for recycling and the weight of such units refer to the total units and weight of the specified kinds of home appliances that received the required processing for recycling, etc. in fiscal 2007.

■ Recycling of parts and materials

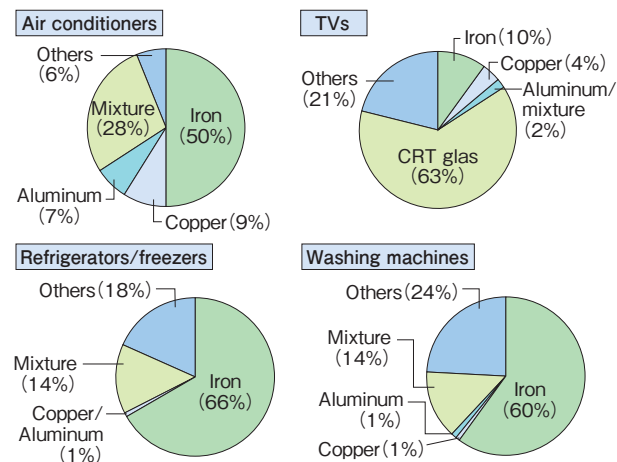
Total weight of relevant parts and materials, made into status suitable for charged or free-of-charge transfers, to be used as parts or materials for new products.

(tons, decimals truncated)

	Air conditioners	TVs	Refrigerators/freezers	Washing machines
Iron	5,079	2,027	15,129	9,070
Copper	871	814	314	171
Aluminum	720	22	21	163
Mixture of nonferrous, iron, etc.	2,852	321	3,222	2,173
CRT glass	—	12,120	—	—
Other valuable resources*	645	4,019	4,240	3,574
Total weight	10,169	19,325	22,928	15,152

* Other valuable resources refer to plastics, etc.

■ Weight percentage of recycled materials by category



■ Weights of collected, shipped, and destroyed refrigerant fluorocarbons

(kg, decimals truncated)

	Air conditioners	Refrigerators/freezers
Weight of collected refrigerant fluorocarbons	153,720	60,855
Weight of refrigerant fluorocarbons shipped to consigned destroying facilities	153,347	59,637
Weight of destroyed refrigerant fluorocarbons	153,082	59,384

■ Weights of fluorocarbons liquefied and collected from heat insulator, shipped, and destroyed

(kg, decimals truncated)

	Air conditioners
Weight of fluorocarbons liquefied and collected from heat insulator 137,196	129,963
Weight of fluorocarbons liquefied and collected from heat insulator then shipped to consigned destroying companies	127,556
Weight of fluorocarbons liquefied and collected from heat insulator, then destroyed	124,265

* The difference between the weights collected and shipped is the weight of stock.
 * The weights shipped and destroyed include the weights of some units from fiscal 2006.
 * The difference between the weights shipped and destroyed is a result of the time lag in receiving destruction reports.

Activity 2

PC recycling

Panasonic has recycled waste Panasonic-made personal computers (PCs) in Japan through dedicated transportation and recycling companies. In fiscal 2007, the number of waste PCs collected was 9,191 (a 16% increase over fiscal 2006), with a recycling rate of 69%. Moreover, some of the PCs to be recycled are transported to the Kobe Plant of the Information Technology Products Division, PAVC, and many of the parts and components disassembled and recovered are utilized as resources in PC repair processes.

■ PC recycling results (Japan)

Category	Business-use (units)	Home-use (units)	Recycling rate (%)
Desktop PCs	807	173	70
Notebook PCs	3,255	538	34
CRT displays	674	759	81
LCDs	2,899	86	65
Total	7,635	1,556	69

panasonic.biz/pc/recycle/

Case Voluntary collection of waste notebook PCs in America

Panasonic Corporation of North America collected approximately 19,000 waste notebook PCs during 2006 through its participation in the PlaniTROI Program, a consumer-friendly recycling service designed for IT products. 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.

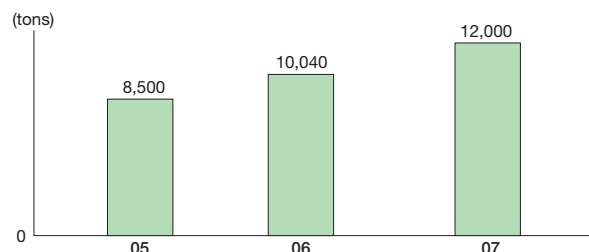
www.planitroi.com/web/panasonicnew.cfm

Activity 3

Recycling plastics through recovery technology development and manual dismantling and thorough separation

It was the recovery of previously discarded plastics that posed a challenge to us in improving recycling rates after the enforcement of the Law for Recycling of Specified Kinds of Home Appliances. There are many varieties of plastics and when different types of plastics are mixed, their further application is significantly reduced. In response, the Group has endeavored to improve recycling rates by speeding up the development of recovery technologies and implementing thorough separation of plastics by manual dismantling. Currently, 21 recycling facilities in Japan are collecting plastics for recycling from TVs, refrigerators/freezers, washing machines, and air conditioners. The plastics are then sold to Panasonic's group and other companies by Environmental Technology Solutions Co., Ltd., established by Panasonic to promote effective utilization. In fiscal 2007, 12,000 tons of plastics were recovered, greatly contributing to the recycling of materials.

■ Weight of recycled plastics handled by Environmental Technology Solutions (Japan)



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

Targets and Results

Target by category

- Promote widespread use of house hold fuel cells, etc. by fiscal 2011
- ➡ **Results** Approx. 200 household fuel cell cogeneration systems are in operation

Environment and Energy Business

Concept

Environmental system business

Reducing environmental impact during the manufacturing process is important for manufacturers, and if this issue can be successfully tackled it may lead to new business opportunities. We have defined this opportunity as “Environmental System Business” and are developing it as one of our 14 business domains. Matsushita Ecology Systems Co., Ltd. takes charge of 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.

Our operations focus on the purification of water, air, and soil, which represent the primary sources of impact on the environment. We hope to grow from offering solutions for individual equipment to offering a whole package of solutions to an entire plant. At the same time, we will expand our business frontiers on a global scale, such as into China.

 panasonic.co.jp/mesc/en/

Activity 1

Sewage treatment business

● Domestic wastewater treatment

Since fiscal 1987, Panasonic has been working on sewage treatment in rural communities. Sewerage systems in agricultural village areas are generally not as advanced as in urban areas, so we have been pursuing a small-scale dispersal type sewage treatment facility. By fiscal 2007, we had delivered 85 units, mainly in Hyogo Prefecture.

The greatest challenge in sewage treatment is the large amount of sludge generated during the sewage

treatment process. To resolve this problem, we developed a sludge reduction plant called EcoSludge. By breaking down the sludge using ultrasonic waves, the plant can reduce the amount of sludge by 75%.



Sludge reduction plant : EcoSludge

Activity 2

Air purification business

● Purification of exhaust gas in a large-scale painting process

A vast amount of VOCs are emitted at plants where large-sized 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 work, i.e. where objects are painted in a large space. MEA supplies ultra-large painting plants that employ the VOC removal techniques developed in the company's production lines.

New VOC regulations were introduced with the revision of the Air Pollution Control Law on April 1, 2006. Companies are now required to manage emission control goals* and to speed up their efforts to reduce all such emissions. We are contributing to the improvement of the air environment by providing total solutions based on these regulations.



Ultra-large painting plant for ships

Activity 3

Soil remediation business

● Soil and groundwater remediation utilizing biotechnology

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 soil, it has less effect on ecosystems and is more

affordable.

It is essential that the decomposing bacteria are present in the soil/groundwater for its remediation process. 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 bacteria types in a single test.

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

Activity 4

Energy business

●Wind/solar Hybrid Tower “Kaze-Kamome”

Kaze-Kamome (Wind Seagull), which Panasonic launched in 2001, is a power generation system that combines wind mills and solar (photovoltaic) cells. The system generates power and illuminates auxiliary lights 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. Many governmental agencies have purchased the Kaze-Kamome as it provides the additional benefit of supplying emergency lighting in the event of a power failure. Moreover, it can be used for crime prevention in parks and other public spaces, when equipped with network cameras. Currently, 642 Kaze-Kamome units are in operation worldwide (as of March 31, 2007).



Kaze-Kamome installed in the Eco & Ud HOUSE

panasonic.co.jp/mesc/products/en/product/windseagull/index.html

Activity 5

Environment business other than the environmental system business segment

●Light and Trust service

Today, most of the used fluorescent lamp/tubes discarded from factories and offices after their service life are simply crushed and land-filled. In 2002, we commenced our Light and Trust Service. This service supplies the “function of light” from fluorescent lamp/tubes, rather than actually selling them. In this business, service companies (distributors of Matsushita Electric Works) collect used fluorescent lamp/tubes to ensure appropriate treatment of the mercury and other chemical substances contained in them. As of March 2007, 4,200 business sites of 740 companies utilize the service.

Panasonic is thus promoting appropriate treatment of fluorescent lamp/tubes in Japan.

●Household Fuel Cell Cogeneration System

Fuel cell system uses electricity and heat generated by the chemical reaction of hydrogen and oxygen as a household energy source. Because these fuel cells enable concurrent use of electricity and heat and thus offer high energy efficiency, the system can reduce CO₂ emissions by 45% and primary energy consumption by 32% from the average level of conventional energy sources for households (based on research by Panasonic). If all Japanese households were to employ the fuel cell system, the GHG reduction effect would be equivalent to the forestation of a land area 30 times that of the Tokyo Metropolis.* As of March 31, 2007, approximately 200 systems are in operation since the delivery of the first system to the Japanese prime minister’s official residence in February 2005.



Household Fuel Cell Cogeneration System

* Based on annual CO₂ emissions from one household (estimated by Panasonic) and the National Census of fiscal 2006 (by the Ministry of Internal Affairs and Communications, Japan)

panasonic.co.jp/appliance/global/FC/index.htm

●Environmental conservation using electrically assisted pedal cycle

Our electrically assisted pedal cycle, known as the “business ECO bike,” is equipped with our original electric motor unit, torque sensor, and high-performance lithium-ion battery. With these advanced components, the Eco Bike has enhanced its performance to the point where it has now been replacing motorcycles for specialized uses, such as mail and newspaper deliveries, and police patrols. Replacing 90 cc motorcycles with this bicycle helps curtail annual CO₂ emissions by 542 kg per unit. To date, we have supplied the bicycles to Kyushu Railway Company and other private railway companies as rental cycles for commuting and sightseeing. We have also delivered the product for shared use among housing complex residents. As a new means of transport, our electric bicycle is helping reduce the environmental impact in urban areas.



Electrically assisted pedal cycle “business Eco bike”

Panasonic believes that if we not only manufacture environmentally-conscious products but also offer products that more customers can use over longer life-times, we will be able to reduce the impact of daily living on the environment. To prevent global warming and air pollution, we are also promoting Green Logistics during product transportation.

Targets and Results

Target by category

- Promote a shift to more environmentally-conscious transport methods (in Japan): Rail freight delivery of 30,000 containers by fiscal 2011
- ➡ **Results** 16,106 containers

Green Marketing

Activity 1

N's Eco Project

N's Eco Project represents our overall marketing activities, which have the dual purpose of widespread of energy and water-conserving products, and promoting tree planting in cooperation with customers in order to prevent global warming. The project started in 2003, and thus far 4,818 trees have been planted throughout Japan. With the new logo introduced in fiscal 2007, we are stepping up our efforts to helping prevent global warming.

Actual deployment results of N's Eco Project

Period	Campaign	Results*
First-half fiscal 2004	A new tree for each new child	Approx. 510,000 ton reduction in CO2 emissions = equivalent to approx. 36 million cedar trees *1
Second-half fiscal 2004	Trees and schools – a great combination	
First-half fiscal 2005	Let's plant a commemorative tree	Approx. 510,000 ton reduction in CO2 emissions = equivalent to approx. 36 million cedar trees *1
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. 740,000 ton reduction in CO2 emissions = equivalent to approx. 52 million cedar trees *1
Second-half fiscal 2006		
First-half fiscal 2007	Let's plant trees with Green Santa	Approx. 450,000 ton reduction in CO2 emissions = equivalent to approx. 32 million cedar trees
Second-half fiscal 2007		

* Possible annual reduction in CO2 emissions by our major energy and water conserving products compared with our products of 7 to 10 years ago. (The electricity CO2 emission factor is 0.357 kg - CO2/kWh.) Amount of CO2 absorbed by 50-year-old cedar trees in Gifu (forest plantation): calculated at 14 kg/tree per year. (Source: "Measures of Green Sink for Global Warming Prevention" published by the Ministry of Environment/ Forest Agency)

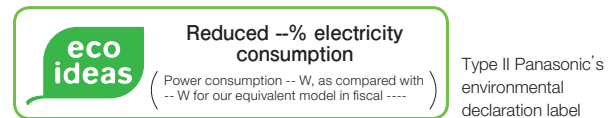
Activity 2

Promoting our product's environmental performance to consumers

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 information on the environmental technology behind the product in an easy-to-understand manner that helps our customers make "smart choices" when considering which products to purchase. Out of the new products released in fiscal 2007, 1,067 models were registered under the Type II label. In fiscal 2008, we are introducing a new design for Type II labels, carrying the phrase, "eco ideas." We are currently working on all three types of environmental declaration categories. ➡ **P.45**

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

Environmental Promotion in our catalogues



List of Type I Ecomark products in Japan

Items	Number of models	
	Fiscal 2007 results	Total number of models*
Electrostatic copiers	15	21
OA paper	0	4
Ceiling material	38	38
Wiring floor	3	3
Cooking oil cleaner	2	2
Soundproofed floor mat	1	1

* Number of models released as of March 31, 2007

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

Items	Number of models	
	Fiscal 2007 results	Total number of models*
Fax machines	7	17
Business fax machines	1	2
Electrostatic copiers	0	1
Optical disc drives	0	2
Interphones	8	11
Fixed telephones	7	15
Network cameras	6	18
PBX systems	2	4
Electronic whiteboards	0	3
Scanners	2	2
Wiring floor	3	3
Total	36	78

* Number of models released as of March 31, 2007

■ Lists of products satisfying the International Energy Star Standard

Items	Number of models
	Number of models accredited in fiscal 2007
Computers	312
Personal fax machines	10
Business fax machines	1
Multi-function machines	20
Printers	1
Scanner	6
Total	332

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

■ Lists of products that acquired energy and water-conserving product certification (China)

Items	Number of series (number of items)
Air conditioners	23 (67)
Refrigerators	31 (43)
Microwave ovens	1 (1)
DVD players	17 (25)
Lighting fixtures (lamps)	9 (27)
LCD projectors	1 (1)
Total	82 (164)

* March 31, 2007



Type I Ecomark



Type III declaration Eco-Leaf label



Energy Star qualification mark



Energy- and water-conserving product certification label

Activity 3

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.

■ Number of product models that conform to the Law on Promoting Green Purchasing (as of March 31, 2007)

Product name	Number of models	Product name	Number of models
Lighting fixtures	86	Car navigation systems	16
Lamp bulbs	78	Electronic whiteboards	15
Air conditioners	71	Toilet seat system with a warm water shower function	10
Refrigerator-freezers	39	Scanners	8
Fluorescent lamps	36	Primary batteries	6
Electric hot water systems	30	Disposers (recyclers)	5
Recording media	29	OA paper	4
Multi-function machines	26	Small-sized rechargeable batteries	4
Fax machines	19	ETC in-vehicle units	3

* Lamp bulb = bulb-shaped fluorescent light
Fluorescent lamps = fluorescent tubes

Repairs and Servicing

Concept

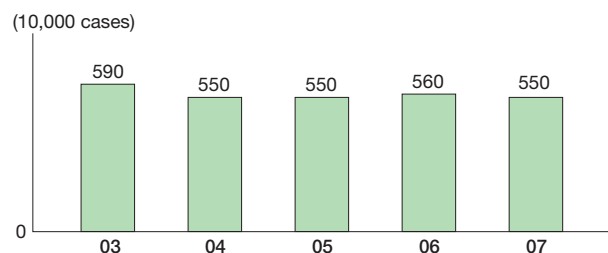
Reflecting customers' opinions in product manufacturing

To help 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 fix in the event of a problem. At the same time, our servicing division is endeavoring to establish an efficient repairs and servicing system and to enhance its technical capabilities. The number of repairs and servicing requests at our service counters has remained fairly level over recent years.

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

panasonic.co.jp/cs/kaden/

■ Number of repairs and servicing cases in Japan



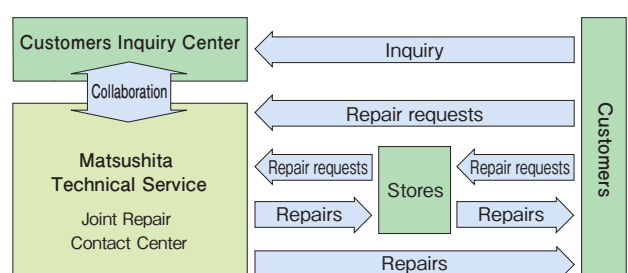
Activity 1

Providing fast repairs through our efficient network and management system

In Japan, repairs and servicing are usually provided by approx. 20,000 community-based stores that mainly sell our products. We also receive servicing requests at our Customer Inquiry Center—open 365 days a year—and repair requests at the Joint Repair Contact Centers established by Matsushita Technical Services.

To offer a speedy and low-cost repairs and servicing, we use our Repair Operation Management System that can manage repairs and servicing tasks centrally, such as scheduling repair visits, confirming reservations, and procuring the necessary repair parts. The introduction of the system was completed throughout Japan in fiscal 2007.

■ Repairs and servicing request flowchart



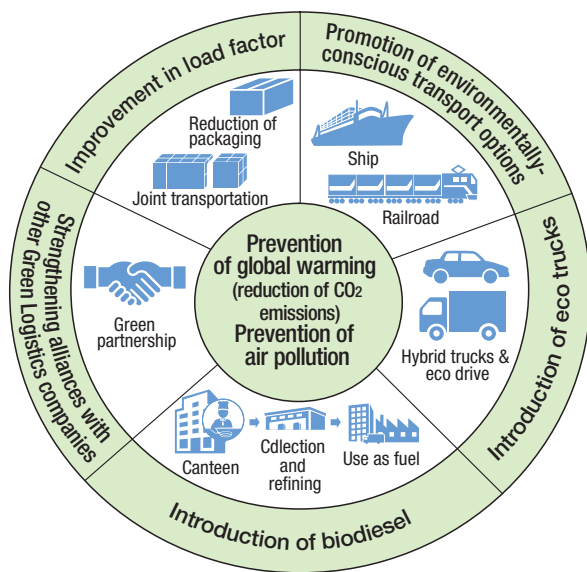
Green Logistics

Concept

Our aims in Green Logistics

Japan's revised Energy Conservation Law took effect in April 2006, and companies are now required to keep track of energy consumption associated with logistics activities and to develop business rationalization plans. To comply with the revised Law, we identified cargo owners that handle logistics of 30 million ton-kilometers or more within the Group and established a new aggregation system. We will expand the scope of aggregation and improve its accuracy to formulate effective and efficient plans to reduce CO₂ emissions. Our policy for Green Logistics aims at achieving a reduction of CO₂ emissions by 4% per basic unit by fiscal 2011 from the fiscal 2007 level. In addition to the current four priority projects—a shift to more environmentally-conscious transport options, the introduction of eco trucks, the strengthening of alliances with Green Logistics companies, and the introduction of biodiesel, we have added a new project concerning improvement in load factor from fiscal 2007, in order to promote group-wide initiatives for Green Logistics.

Major projects in Green Logistics



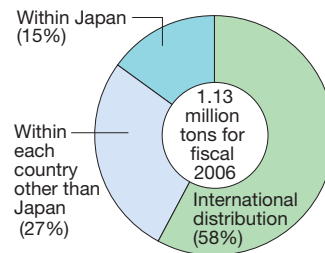
Compliance with laws and regulations

Breakdown of CO₂ emissions from transportation

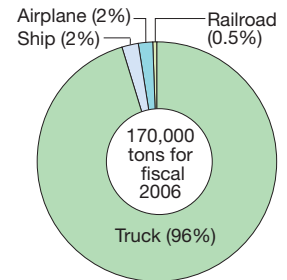
We measured 1.13 million tons of CO₂ emissions from global transportation in fiscal 2006. Of these, transportation outside Japan accounted for 58% and domestic transportation 15%. Transportation by trucks accounted for 96% of total CO₂ emissions in Japan. As for fiscal 2007 results, we are tabulating the CO₂ emissions using a new system to obtain more accurate figures. Actual CO₂ emissions for fiscal 2007 will be available in September on our website

panasonic.net/eco/data_file/

CO₂ emissions from transportation (approximate figure, global)



CO₂ emissions from transportation (Japan)



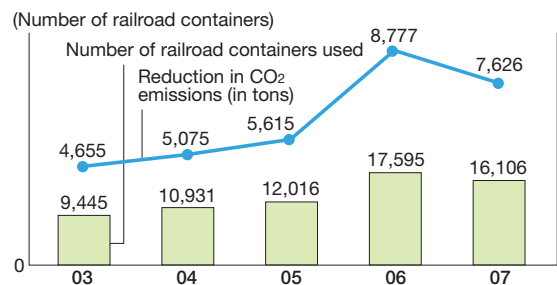
Activity 1

Promoting environmentally-conscious transport options

We have worked on a modal transportation shift to from trucks to railroad, which reduces CO₂ emissions to approximately one-eighth. However, actual rail freight transportation in fiscal 2007 was 16,106 five-ton containers, a decrease from the level in fiscal 2006. This was mainly because the products suitable for railroad transportation decreased. We were able to cut CO₂ emissions by 7,626 tons through transportation by railroad.

With 30,000 railroad freight containers set as the fiscal 2011 target, we will work on initiatives in new product categories to achieve this goal.

Reduction in CO₂ emissions by railroad transportation (Japan)



Panasonic's product become the first product to receive the Eco Rail Mark

Panasonic Mobile Communications Co., Ltd. switched the transportation method of the mobile phones shipped to Hokkaido and Kyushu areas completely to railroad transportation. For this effort, our mobile phones became the first products accredited with the Eco Rail Mark in the mobile phone industry. The number of containers used for the endeavor was approximately 300 containers per year.

This Eco Rail mark is given to companies that transport more than 30% of cargo by railroad freight over a distance of 500 km or more. This eco mark clearly expresses that these companies are making positive utilization of railroad transportation.

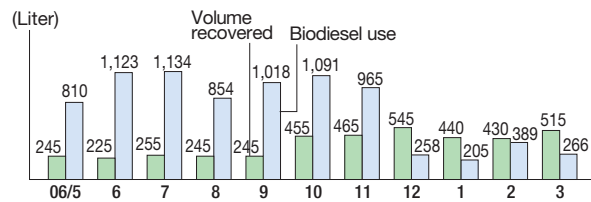


Promoting biodiesel usage

In fiscal 2006, Panasonic conducted a model project in Kusatsu, Shiga Prefecture, Japan and established a scheme where waste cooking oil from a factory canteen was refined and converted into biodiesel, which was then used to fuel hybrid trucks owned by Matsushita Logistics Co., Ltd. In July 2006 biodiesel refined from waste cooking oil began to be used in vehicles for sales, production, procurement, and commuting. At first, we used diesel fuel that contained 20% biodiesel. However, in consideration of the Law on the Quality Control of Gasoline and Other Fuels enacted in March 2007, we switched to fuel with a 5% blend of biodiesel.

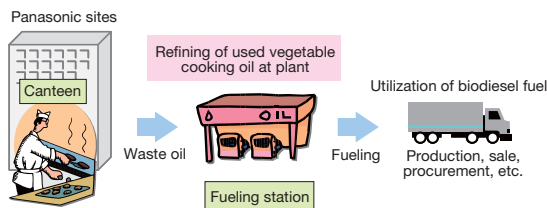
* Fuel produced from biologic materials

Changes in volume of recovered waste oil and biodiesel fuel use



* Switched from a 20% to a 5% blend in December

Scheme for converting waste cooking oil from canteen into biodiesel fuel



Strengthening alliances with Green Logistics companies

Alliances between cargo owner companies and logistics companies are essential in Green Logistics. During fiscal 2007, we invited opinions from 83 major consignees and surveyed their certification status with respect to ISO14001, Green Management Certification, and Eco Action 21. We hope to further reduce CO2 emissions through awareness-raising efforts for eco driving.

* Logistics companies with higher transaction values

Certification status of logistics companies

Scope: 114 sales offices of 83 companies Number of sales offices certified: 36 (Accreditation rate: 32%)	[Description of certification*] Green Management Certification: 28 (25%) ISO14001: 16 (14%)
---	---

* Some sales offices have obtained more than one type of certification.

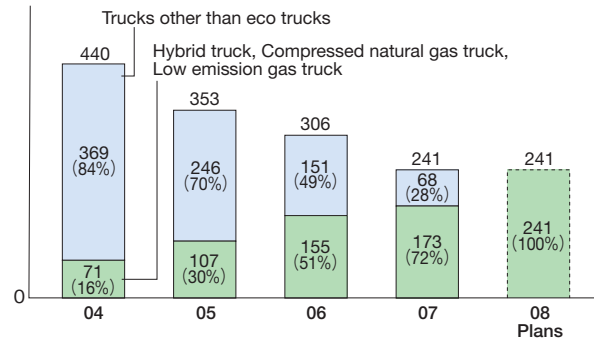
Promoting the introduction of eco trucks

Since 2003, Matsushita Logistics Co., Ltd. has been introducing hybrid trucks to attain its goal of replacing all small trucks with eco trucks by the end of March 2007. However, new types of hybrid trucks with superior environmental performance were launched in autumn 2006. We therefore revised the timeframe for the goal to March 2008.



Introduction of eco trucks (in Japan)

(Number of eco trucks)

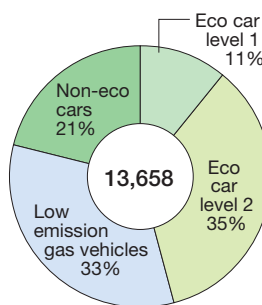


* From fiscal 2007, vehicles that will shortly be taken out of service have been excluded from the project.

Promoting the introduction of eco cars

We have promoted the introduction of eco cars for use as company vehicles since fiscal 2003. After the establishment of the Leap Ahead Eco Car Plan in January 2005, we have stepped up our eco car initiatives and raised the standard for company eco cars to the level used for official government cars. At the same time, our target areas have been expanded to cover sales and service companies. In fiscal 2007, all company cars for executives in Japan were replaced with eco vehicles.

Our eco car introduction for company owned vehicles



(Japan, excluding trucks)

* As of the end of March 2007

Our definition of eco cars

Level 1
<ul style="list-style-type: none"> ● 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
<ul style="list-style-type: none"> ● Vehicles that achieve more than a 75% 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

We are committed to providing and sharing information, as well as to exchanging opinions so as to incorporate our stakeholders' feedback in our environmental sustainability management. We are keen to promote employees' environmental awareness not only in our business operations, but also in general awareness-raising and social contribution activities.

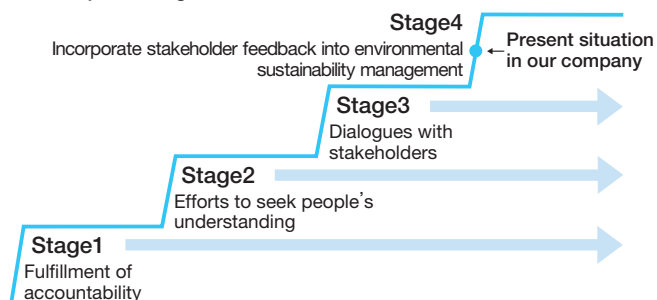
Targets and Results

Targets by category

- Increase LE (Love the Earth) families: to at least 80% of total employee households by fiscal 2011 (Japan)
 - ➡ **Result** 58% of employees' families participated in the LE family
- Environmental communication results (handled by the head office of Matsushita Electric Industrial Co., Ltd. in fiscal 2007)

Media/activities	Results	Media/activities	Results
Sustainability Report (in Japanese)	30,000 copies	TV commercials	5
Sustainability Report (in English)	10,000 copies	Newspaper ads	20
Sustainability Report (in Chinese)	5,000 copies	Exhibitions	16
Environmental Data Book (in Japanese)	10,000 copies	Lecture meetings	34
Environmental Data Book (in English)	5,000 copies	Books, papers, lectures	9
Environmental Data Book (in Chinese)	5,000 copies	Interviews with reporters	24
Website (in Japanese)	Approx. 2.25 million page views	News release	7
Website (in English)	Approx. 310,000 page views	Responses to surveys/questionnaires	55
Stakeholder dialogue	3	E-mail inquiries	962

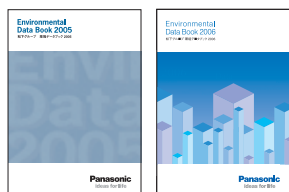
Development stages in environmental communication



This development stage diagram represents milestones for Panasonic in further promoting environmental communication activities. Each stage describes the status of progress in our activities.



Lights-out at Panasonic Center in Tokyo



Environmental Data Books

Sharing Environmental Information

Concept and activity

Stakeholder feedback on environmental sustainability management

To promote environmental sustainability management, it is important to inform stakeholders 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 promote communication with our stakeholders through environmental labeling, the Environmental Data Book, public relations activities, and participation in exhibitions. In particular, we believe that disclosure through reports is essential to fulfilling the check process within the PDCA cycle, and have therefore continued to publish paper-based reports to overview our environmental sustainability management.

● Environmental appeals on labels and other media

In an effort to minimize the environmental impact from our products, we use our website, product catalogues, and environmental labels to provide customers with environmental information on our products in an easy-to-understand manner. Our aim is to help customers make a "smart choice" in their purchasing and to promote environmentally-conscious products.

In April 2007, we introduced a new Panasonic's environmental mark, "eco ideas," as a symbol of our efforts to help preserve the environment. ➡ P.41



● Exchanging opinions with external stakeholders

In March 2007, the environmental NGO, Greenpeace, visited Panasonic Center Osaka, National Center Osaka, and Matsushita Eco Technology Center Co., Ltd, (METEC). At METEC, representative of the NGO gained an understanding of our active recycling efforts and gave us their views on our chemical substances management and recycling of home appliances.

Since 2001, we have partnered with the international NGO, Natural Step, seeking their opinions on our sustainability and environmental management. ➡ P.59



Exchanging opinions with Greenpeace officials

●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 gather feedback from as many stakeholders as possible so as to drive forward our environmental sustainability management. In November 2006, we held seminar-style press conferences in three European countries (UK, Germany, and France) to coincide with the successful release of lead-free plasma display panels. We engaged in a broad-based discussion with a total of 84 reporters on our environmental activities. → P.20

During fiscal 2007, Panasonic participated in 16 exhibitions held in Japan and overseas. There, we introduced our environmental initiatives and environmentally-conscious products and received feedback.



Eco-Products International Fair 2006

●Participation in the “Team -6%” campaign

The Japanese government launched a national campaign, “Team -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. In fiscal 2007, we encouraged staff to restrict air-conditioner thermostats to levels that would minimize energy-consumption. We made extensive use of a new logo, “Hello! Environmental Technology,” in our catalogues and advertising. We have continued our “Lights-out” campaign since July 2005, in which neon advertising signboards and electrically-illuminated billboards at our business sites are switched off. The campaign was conducted at all our 206 business sites in Japan. This resulted in a reduction of approximately 2.38 million kWh of electricity and 1,030 tons of CO₂ emissions. We also saved 28.60 million yen in our electricity charges, and are planning to continue the campaign in fiscal 2008.

■Participation in major exhibitions

Exhibitions	Venues	Opening period
China Beijing International Hi-Tech Expo	Beijing (China)	May 2006
INTEROP Tokyo	Tokyo (Japan)	June 2006
China International Recycling Economy Expo	Suzhou (China)	July 2006
World Congress of Environmental and Resource Economists	Kyoto (Japan)	July 2006
CEATEC JAPAN	Tokyo (Japan)	October 2006
Eco-Products International Fair 2006	Singapore	October 2006
Inter BEE 2006	Tokyo (Japan)	November 2006
Eco-Products 2006	Tokyo (Japan)	December 2006
2007 International CES	Las Vegas (USA)	January 2007
Abu Dhabi Environmental Exhibition	Abu Dhabi (UAE)	January 2007
ENEX 2007	Tokyo (Japan)	February 2007
SECURITY SHOW 2007	Tokyo (Japan)	March 2007
CeBIT 2007	Hanover (Germany)	March 2007

■On-site environmental communication results

	Japan	Americas	Europe	Asia/Oceania	China/Northeast Asia
Site tours (visitors)	38,154	1,637	481	1,323	4,570
Community contribution activities* (frequency)	442	16	22	30	34

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

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

Japan	Americas	Europe	Asia/Oceania	China/Northeast Asia
143	21	19	59	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

■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

Showrooms

Panasonic Centers, Eco & Ud HOUSE, and our National Centers showcase the aspirations of Panasonic and its group subsidiaries, in the form of specific products and services, based on our two business visions of Realizing a Ubiquitous Network Society and Coexisting with the Global Environment. They serve as vehicles for communication where we receive opinions and requests directly from customers.

● Panasonic Center Tokyo

At our Ubiquitous Network Showcase, the latest technology and equipment allow visitors to experience the ways in which we aim at realizing the ubiquitous network society. The Environmental Showcase introduces our environmental commitments that we pursue with our various technologies and products, which help us realize our drive for “Creating Value for a New Lifestyle”. The Universal Design Laboratory allows customers to experience universal design, which has been pursued from diverse design perspectives to ensure that anyone can use our products easily and safely. In December 2006, with the participation of the Japanese alpinist, Ken Noguchi, the Mt. Everest Clean-up Climbing Exhibition was held to display the trash brought back from the Clean-up Mountain Climb,* conducted in cooperation with world climbers to resolve the growing waste problem on Mt. Everest. Mr. Noguchi gave an eco lecture and reported on the clean-up expedition.

* Project to collect garbage left by mountaineering parties from around the world

panasonic.co.jp/center/tokyo/en/

● Panasonic Center Osaka

Just like Panasonic Center Tokyo, our Osaka Center showcases our environmental initiatives through our latest technology and equipment displayed at the Ubiquitous Network Showcase, Environmental Showcase,



External view of Panasonic Center Tokyo



Environmental Showcase



Mt. Everest Clean-up Climbing Exhibition



Environmental Showcase

and Universal Design Showcase. The Center conducts “p!ks” (Panasonic Kids School)—experiment-based science events—for elementary school students. These sessions introduce topics such as electricity, light, and the mechanism of telecommunications, as well as our initiatives in environmental preservation.

panasonic.co.jp/center/osaka/en/



Experience-based display of heat insulating material “U-Vacua”

● Eco & Ud HOUSE

The Eco & Ud HOUSE was built on the premises of the Panasonic Center Tokyo in January 2006. The house



External view of Eco & Ud 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. Assuming the kind of lifestyle we envisage for 2010, its design is based on the Factor 5 concept, which seeks to double the quality of life and reduce environmental impact to 40% of 1990 levels. In December 2006, the house was refurbished with enhanced products that make full use of the latest IT technology [P.11](#)

panasonic.co.jp/euhouse/en/

● National Centers (Tokyo and Osaka)

National Centers offer a chance to see and try a wide range of new lifestyle solutions, centering on the concept of realizing dreams and comfort in our everyday lives.

The Dream Homes for Today floor embodies customers’ visions 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 Center Osaka

[National Center Tokyo: national.jp/center/tokyo/en/](http://national.jp/center/tokyo/en/)

[National Center Osaka: national.jp/center/osaka/en/](http://national.jp/center/osaka/en/)

Environmental Gallery fiscal 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 from our corporate advertisements published in fiscal 2007.

■ Newspaper advertisements

ECO Communication Series



Lights-out continues
(June 20, 2006)



RoHS
(June 22, 2006)



Green logistics
(July 19, 2006)



Zero emission activities at factories
(August 30, 2006)



Initiatives for 3R design
(October 18, 2006)



Lead-free PDP
(February 2, 2007)

 41st Japan Industrial Advertisement Awards



"Kitchen oil field" (September 7, 2006)

 35th Nikkei MJ Advertising Award



Plastic
(September 25, 2006)



Bio fuels
(September 27, 2006)



"Bamboo speaker"
(September 29, 2006)

■ TV programs sponsored by our company

Panasonic Special
Chikyū Shinseiki
~new century for the earth~

Honorable Professor of the University of Tokyo Yoshio Tsukio, who is an expert in IT and environmental fields, introduced the tips for saving the earth in the TV program comprising three different stories.



- First story: Love for forests (November 2006)
- Second story: Water and soil circulation (January 2007)
- Third story: Rediscovering Japan (February 2007)

■ TV commercial



Environmental Communication Awards 2006
Prize for excellence in TV commercials on environment



■ Advertisements carried (Japan)

Newspaper advertisements		
Theme	Slogan	Month
METEC (Matsushita Eco- Technology Center)	Recycle report	June
Eco & Ud HOUSE	House to experience tomorrow's life	June
Continuously turning off lights	Turning off neon signs throughout Japan	June
RoHS	Kind to the earth and strict to parts	June
Environmentally friendly air conditioners	Environmental technologies for air conditioners	June
Green logistics	Use of food oil as fuels for trucks	July
Zero emission activities at factories	Toward more advanced zero emission factories	August
Lifecycle of home appliances (manufacture)	To manufacture cleaner products	September
Lifecycle of home appliances (use)	Energy and water conservation technologies	September
Lifecycle of home appliances (after use)	Recycling	September
Biomass fuels (oil fields)	Green logistics by the use of bio fuels	September
Biomass (plastic)	Bio plastics made from corns	September
Biomass (bio fuels)	Use of food oil as diesel fuels	September
Biomass (speakers)	Speakers made using bamboos	September
Initiatives for 3R design	Manufacturing recyclable products	October
Refurbishment of Eco & Ud HOUSE	For the entire house	December
Fuel cells (new year)	Energy creation and conservation	January
Eco & Ud (new year)	Ecology and universal design	January
Lead-free PDPs	Lead-free plasma display panels	February
Vacuum insulation	Vacua series	March
TV commercials		
Theme	Title	Air-play
METEC	Treasure chest	From November 2005
Fuel cells for household use 1	Picture book 1	From April 2006
Fuel cells for household use 2	Picture book 2	From April 2006
Fuel cells for household use 3	Picture book 3	From May 2006
Manufacturing	Environmentally friendly manufacturing	From November 2006

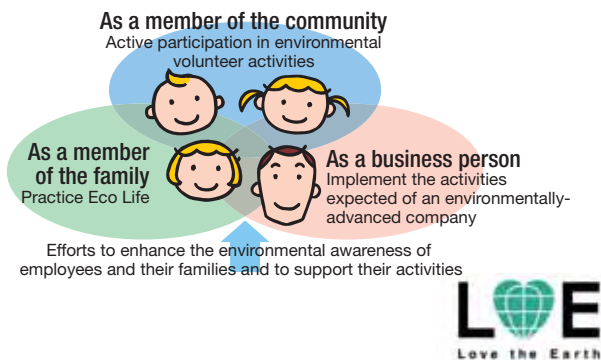
Social Contribution and Environmental Awareness

Activity 1

Love the Earth Citizens' Campaign led by Panasonic's employees and their families

In 1998, we launched the Love the Earth Citizens' Campaign (LE Campaign) targeting our employees in Japan and their families. This initiative was based on the then President's idea that Panasonic's employees should themselves act as citizens who are environmentally-conscious at home and in their local communities. At present, employees in charge of the LE Campaign (Who could be based in either the environmental or personnel divisions, or indeed, within the labor unions), are deployed at each domain company and business site to conduct a range of activities to raise the environmental awareness of employees and transform their lifestyles into more environmentally-conscious ones.

■ Aims of Love the Earth Citizens' Campaign



LE activities are conducted based on the Eight Action Programs for Eco Life* as their action guidelines. 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 distributed at stores, and participate in environmental volunteer activities. Those who have participated in these activities are certified as LE Families. Nine years after the launch of LE activities, we are now gradually producing tangible results. In fiscal 2007, approximately 58% of our employees' households in Japan took part in LE activities. We have also introduced an accreditation program for employees who have achieved excellent results in LE activities, thereby further promoting these activities.

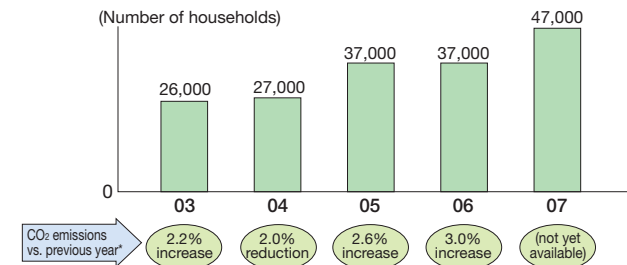
* (1) Energy conservation; (2) Use of eco bags; (3) Cooking for eco life; (4) Green purchasing; (5) Extended use of products; (6) Waste reduction/recycling; (7) Use of public transport/Eco driving; and (8) Environmental volunteer work.

● "Household eco-account book" initiative

This initiative encourages employees to record and reduce the amount of energy they use at their households, (such as electricity and gas), and to help identify and reduce their CO₂ emissions using Panasonic's unique

Household eco-account book. By recording relevant data in the book, employees become more focused on the Environment, are further motivated to reduce their CO₂ emissions and make their lifestyles more environmentally-conscious.

■ Number of participating households and past achievements



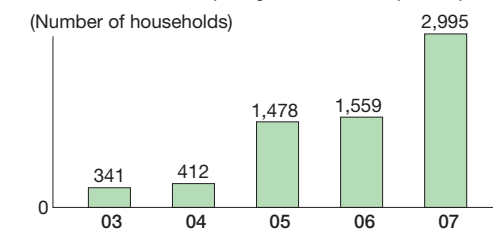
* Total CO₂ emissions from households that participated in the campaign for two consecutive years.

● Plastic shopping bag reduction campaign

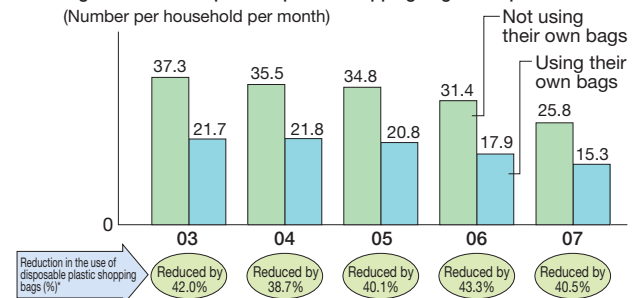
As part of our efforts to save resources and reduce waste, we are promoting this campaign to encourage employees to bring their own bags when shopping, thereby reducing use of the disposable plastic shopping bags provided by stores.

In fiscal 2007, some 4,000 employee households participated in this campaign and 2,995 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 our in-house awareness-raising activities. It has also been influenced by the fact that discussions are now underway regarding the introduction of charges for disposable plastic bags, which are generally freely distributed at stores.

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



■ Average number of disposable plastic shopping bags used per household



* Calculated based on the reduction in the use of disposable plastic shopping bags achieved by the reporting households over three months

● Environmental Volunteer Activities

We encourage employees to participate in local tree planting activities, cleaning activities, recovery of wasted cans, and selling recycled goods as part of our environmental impact reduction and environmental education activities. In fiscal 2007, approximately 15,000 employees participated in these activities.

Case LE Expert Accreditation System

In order to promote LE activities further, we introduced a system for the accreditation of employees who have achieved excellent results in environmental activities (“LE Expert Accreditation System”) in fiscal 2007. Under the system, employees who continuously have environmentally-conscious lifestyles at their households, in their offices, and in local communities, and who are promoting such lifestyles to others, are accredited as LE Expert. In fiscal 2007, we accredited 11 employees as such Experts. In the future, we aim to increase the number of LE Families by holding seminars in which the LE Experts will give guidance to participants.

■ Outline of accreditation criteria for the LE Experts

Employees who have obtained certain scores in the following items are certified as Masters of LE Activities.

Continuity	(Mandatory) Continuing LE activities for at least three years (nine years)	
Activities	Household eco-account book	Making efforts to reduce CO2 emissions (Actually reducing CO2 emissions on a continuous basis)
	Use of their own bags at stores	Always using their own bags instead of using disposable plastic bags
	Environmental volunteer activities	Participating in activities at least five times a year (10 times a year)
	Other activities included in the Eight Action Programs for Eco Life	
Influencing others	Encouraging others in addition to family members to have environmentally-conscious lifestyles (actively planning and managing environmental activities)	
Extra items (given additional scores)	Examples: Internally/externally commended for environmental activities; introduced in newspapers or giving talks on environmental activities; building a network for activities; and recognized for conducting advanced activities	

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

 panasonic.co.jp/eco/le/tatsujin/

Activity 2

The Matsushita Green Volunteer Club

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 2007)

Activities		Achievements
Forest preservation	Cut down undergrowth in forests, thinned, and planted trees, and took care of forests and bamboo groves	A total of 40 activities at 24 locations across Japan
Cleanup	Cleaned up parks, beaches, and riverbeds, and planted new flowerbeds	A total of 28 activities at 20 locations across Japan
Nature observation and making handicrafts	Provided 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	Provided opportunities to make fixed-point observations of registered cherry trees blooming patterns and seasonal changes	Of 226 cherry trees registered for the Cherry Blossom Viewing 2006, 116 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 other 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 2006 our eighth joint activity was conducted. A total of 1,057 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 plum trees. This activity is supported by the city of Yokohama, local forest volunteer groups, and owners of the woodland.



Eighth LE & MGV joint activity conducted in Hitorizawa Community Woods

Approach 3

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 under the Forest of Coexistence Program. We started this activity in fiscal 2004 and in the four years since then we have planted some 22,000 trees over the total land area of approximately 21,000 m² at our 19 business sites. Some of these sites have created unique “forests,” including a “forest surrounding a unique ecosystem” and a “rooftop forest.”

■ Business sites participating in the activity in fiscal 2007

Panasonic Factory Solutions Co., Ltd. (Tosu, Saga Japan)
 Panasonic EV Energy Co., Ltd. (Kosai, Shizuoka Japan)
 Matsushita Home Appliances Company (Kato, Hyogo Japan)
 Victor Company of Japan, Ltd. (Yokohama, Kanagawa Japan)

Activity 4

Providing support to NPOs tackling environmental and children's issues

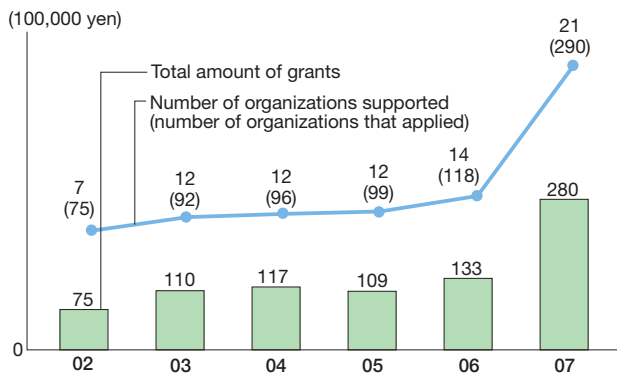
Panasonic has been managing the Panasonic NPO Supporting Fund to assist NPOs engaged in environmental issues or in supporting the sound development of children. Our support has been focused on strengthening their organizational bases so that they can put their inherent power to best use and carry out sustainable activities. We also provide them with consulting services and opportunities to share know-how.

In fiscal 2007, a total of 290 NPOs applied for our support and we donated 27.95 million yen to a total of 21 organizations (nine organizations engaged in environmental issues and 12 organizations working for the welfare of children.)

● Fund recipients in the environmental category in fiscal 2007

- The Sloth Club
- Pacific Asian Resource Center
- Development Education Association and Resource Center
- Environmental Preservation Rice Network
- Eco League
- Japan Center for a Sustainable Environment and Society
- Japan Wildlife Conservation Society
- Nature Conservation Society of Osaka
- Noboribetsu Outdoor Activity Support Center Momonga Club

■ Results of the Panasonic NPO Supporting Fund



Donation ceremony held by the Panasonic NPO Supporting Fund in fiscal 2007

Case Local exchange activities at Sakura Hiroba

In April 2006, Panasonic opened two cherry tree parks named "Sakura Hiroba" on its sites in Chiba and Osaka, Japan. These parks, which were designed by Architect Tadao Ando, were created based on our vision Coexistence with the Global Environment and on our desire to contribute to local communities and improve local landscapes. Local inhabitants can admire the beautiful cherry blossoms each spring.

In November 2006, we held a photo contest and a fallen leaf craftwork seminar in the two parks. A total of 115 employees and their families participated in the events and enjoyed the natural environment, even helping to clean up the parks. We will continue to use these parks as places where our employees can raise their environmental awareness.



First clean-up activity (in Chiba, Japan) Making craftwork using fallen leaves

Case Starting planting activities in Wakayama

Matsushita Electric Works and its labor union participated in a corporate forestation activity* in Wakayama Prefecture, Japan, where Konosuke Matsushita, Panasonic's founder, was born, and started planting trees in a village forest in Tanabe City. This forest was named "Nagaki-no Mori" (Perpetual Forest) in June 2006, chosen from among about 400 proposals made by employees and their families. In July of the same year, Wakayama Prefecture, Tanabe City, and the company concluded an agreement on the preservation and management of the forest.

In the first planting activity conducted in April 2007, a total of 300 people, including the president, other directors, general employees and their families, and retirees of Matsushita Electric Works, participated and planted around 700 trees, such as Zelkova, Quercus serrata, and Maple trees. We plan to plant a total of some 45,000 trees, mainly broad leaf trees, in an area of 20 hectares over the next ten years.

* In corporate forestation activities, local governments cooperate with companies and their labor unions in local forestation.



Planting trees in Nagaki-no Mori (April 2007)

Major awards in the environmental field (fiscal 2007)

Category	Presenter and the awards	Specific prize	Recipient company and the details
Products & services	9th Ozone Protection and Global Warming Prevention Award, Nikkan Kogyo Shimbun Ltd.	Outstanding achievement award	Matsushita Refrigeration Company [Development of a highly efficient heat pump-type drinks vending using hydrocarbon refrigerant]
	3rd Eco Products Awards, Council for Eco Products Award Promotion	Prize from the Minister of Economy, Trade and Industry in the eco products category	Home Appliances Group, Matsushita Electric Industrial Co., Ltd. Heat pump-type tilted-drum washer/dryer NA-VR1100
	The Eco-Efficiency Award 2006, Japan Forum on Eco-efficiency	Prize from the Director-General of the Industrial Science and Technology Policy and Environment Bureau	Matsushita Electric Industrial Co., Ltd. [Factor X for creating value for a new lifestyle]
	17th Energy Saving Grand Prix, Ministry of Economy, Trade and Industry	Prize from the Minister of Economy, Trade and Industry	Matsushita Refrigeration Company Vacuum insulation offering high performance and functionality Vacua Series U-Vacua (Ver. IV) and Chip-Vacua
		Prize from the Director-General of the Agency for Natural Resources and Energy	Home Appliances Group, Matsushita Electric Industrial Co., Ltd. Heat pump-type tilted drum washer/dryers NA-VR1100, NA-VR1100R Matsushita Refrigeration Company Total of nine models, including the NS-630EVHP hydro carbon heat pump-type drinks vending machine Matsushita Electric Works, Ltd. Total of 15 models, including the FSS42560A PX9 lighting equipment with sensor
		Prize from the chairman of the Energy Conservation Center, Japan	Lighting Company, Matsushita Electric Industrial Co., Ltd. Fluorescent bulbs including the EFA15EL/10H, EFA15EN/10H, and EFA15ED/10H Home Appliances Group, Matsushita Electric Industrial Co., Ltd. The CS-X227A series room air conditioners
Nikkei Awards for Superior Products and Services 2006, Nikkei Inc.	Highest award and a prize from Nikkei Inc.	Home Appliances Group, Matsushita Electric Industrial Co., Ltd. Heat pump-type washer/dryer NA-VR1000	
Environmental sustainability management	Corporate Citizen Committee, Chinese Social Contribution Association	Prize for excellent corporate citizenship	Panasonic Corporation of China Beijing, Matsushita Color CRT Co., Ltd.
Energy and resource conservation	Awards for Achievement in Promoting Reduce, Reuse, Recycle Activities, 3R Promotion Council, Japan	Prize from the chairman of the 3R Promotion Council	Matsushita Plasma Display Co., Ltd. Ibaraki Plant Matsushita Electric Works Bathroom Ware Systems & Life, Ltd. Engineering Department Gifu Matsushita Electric Works Co., Ltd. Manufacturing Department Mokka Matsushita Electric Works, Ltd. Production Engineering Department Victor Company of Japan, Ltd. Circuit Board Div., Components & Device Business Group
	3rd commendation for the excellent use of biomass, Ministry of Agriculture, Forestry and Fisheries	Prize from the Minister of Agriculture, Forestry and Fisheries	Matsushita Electric Industrial Co., Ltd. Matsushita Battery Industrial Co., Ltd.
Management of chemical substances	PRTR Awards 2006, Center for Environmental Information Science	Prize for encouragement	PanaHome Corporation Shizuoka Plant Matsushita Ecology Systems Co., Ltd. Kasugai Plant
Prevention of global warming	Nikkei Monozukuri (Manufacturing) Awards	Special prize commemorating the 130 anniversary of the first issue of Nihon Keizai Shimbun	Matsushita Plasma Display Co., Ltd. Amagasaki Plant
	Commendation for excellent examples of energy conservation, the Energy Conservation Center, Japan	Prize from the Minister of Economy, Trade and Industry	Matsushita Electric Works, Ltd. Head office building in Tokyo Energy conservation through "office building tuning"
	Commendation for excellence in energy management at factories, Ministry of Economy, Trade and Industry	Commendation by the Minister of Economy, Trade and Industry	PanaHome Corporation Head office Plant, Kyushu Plant
		Commendation by the Director-General of the Agency for Natural Resources and Energy	Panasonic AVC Networks Company Fukushima Plant Panasonic Shikoku Electronics Co., Ltd. Ozu District
Environmental communication	41st Japan Industrial Advertisement Awards The Nikkan Kogyo Shimbun, Ltd.	Grand prize	Matsushita Electric Industrial Co., Ltd. Green Logistics and "kitchen oil field"
		First prize for series of advertisements	Matsushita Electric Industrial Co., Ltd. Series of advertisements for tilted-drum washer/dryer and recycling
	Nikkei MJ Advertising Award, Nikkei Inc	Nikkei MJ Advertising Award	Matsushita Electric Industrial Co., Ltd. Series of advertisements on biomass and Panasonic
	Japan Magazine Advertising Award, Japan Magazine Advertising Association	Comprehensive prize	Matsushita Electric Industrial Co., Ltd.
		Prize from the Minister of Economy, Trade and Industry	
	Environmental goo Awards 2006, NTT Resonant Inc.	Prize for sustainability reports	Matsushita Electric Industrial Co., Ltd.
		Prize for environmental education	
	Environmental Communication Awards 2006, Global Environmental Forum	Prize for excellent sustainability reporting from the president of the Global Environmental Forum	Matsushita Electric Industrial Co., Ltd. The Panasonic Report for Sustainability 2006 Environmental Data Book 2006
Prize as a "Meister" in sustainability reporting			
10th Green Reporting Award and Sustainability Reporting Award, Green Reporting Forum, Toyo Keizai Inc.	Prize for excellence in TV commercials on the environment from the president of the Global Environmental Forum	Matsushita Electric Industrial Co., Ltd. Commercial on environmentally friendly manufacturing	
	Prize for excellent sustainability reporting	Matsushita Electric Industrial Co., Ltd. The Panasonic Report for Sustainability 2006	
	Prize for excellent "Green Reporting"	Matsushita Electric Industrial Co., Ltd. Environmental Data Book 2006	

Major honors in the environmental field (fiscal 2007)

Listed in the Dow Jones Sustainability Index, FTSE4Good Global 100 Index, and Ethibel Sustainability Index
Ranked seventh among 541 manufacturers in the Nikkei Environmental Management Survey
Graded AA by Tohatsu Evaluation and Certification Organization Co., Ltd.



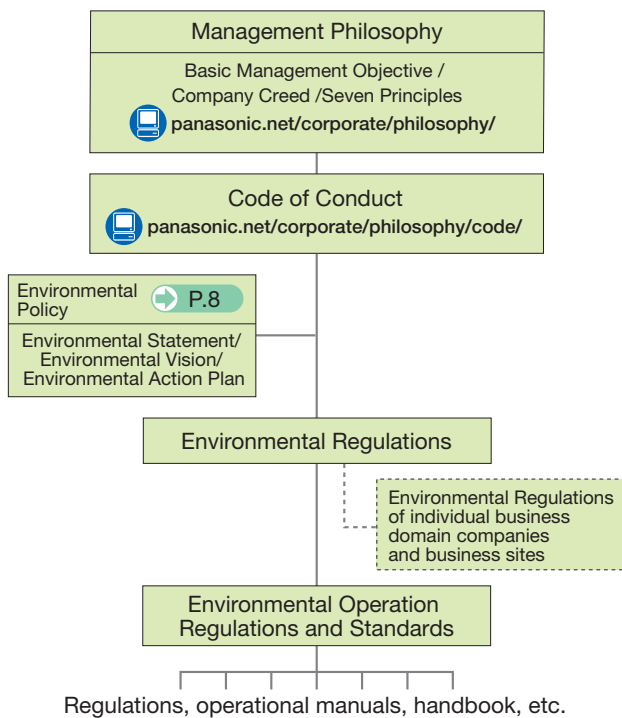
Panasonic continues to evolve its environmental sustainability management by nurturing capable personnel who can lead the implementation of environmental PDCA cycles.

Targets and Results

Target by category

- Promote visualization of environmental sustainability management by fiscal 2011
- ➡ **Results**
 - Global Environmental Working Committee held
 - Environmental education frameworks established
- **Cost**
 - Environmental activities management cost: 9.82 billion yen

■ In-house documents regarding environmental sustainability management



■ PDCA cycle of environmental sustainability management



Environmental Governance

Concept

Promoting environmental sustainability management through consistent 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 February 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 within the group-wide scheme for achieving our Green Plan 2010. The Environmental Working Committee reviews the final results of the previous year in June 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 set integrated targets under the Green Plan 2010, to steadily implement the plan in accordance with carefully drafted GP development plans and Three-Year CF plans, 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 sustainability management.

Activity 1

System to promote environmental sustainability management

It is the responsibility of the 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 of environmental staff from the major business domain companies). In fiscal 2007, the Factor 5 Project Committee was established as a short-term advisory body to the Environmental Working Committee.

To further promote initiatives in specific strategic areas, the division established three additional committees: (1) The Chemical Substances in Products Management Committee, to continue activities of the Specified Chemical Substance Project launched upon the enforcement of the RoHS Directive in the EU; (2) the Green Logistics Promotion Committee, to accelerate initiatives in logistics in response to the revised Japanese Energy Conservation Law; and (3) the Environmental Indicator Promotion Committee, to reinforce effort in environmental information disclosure.

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

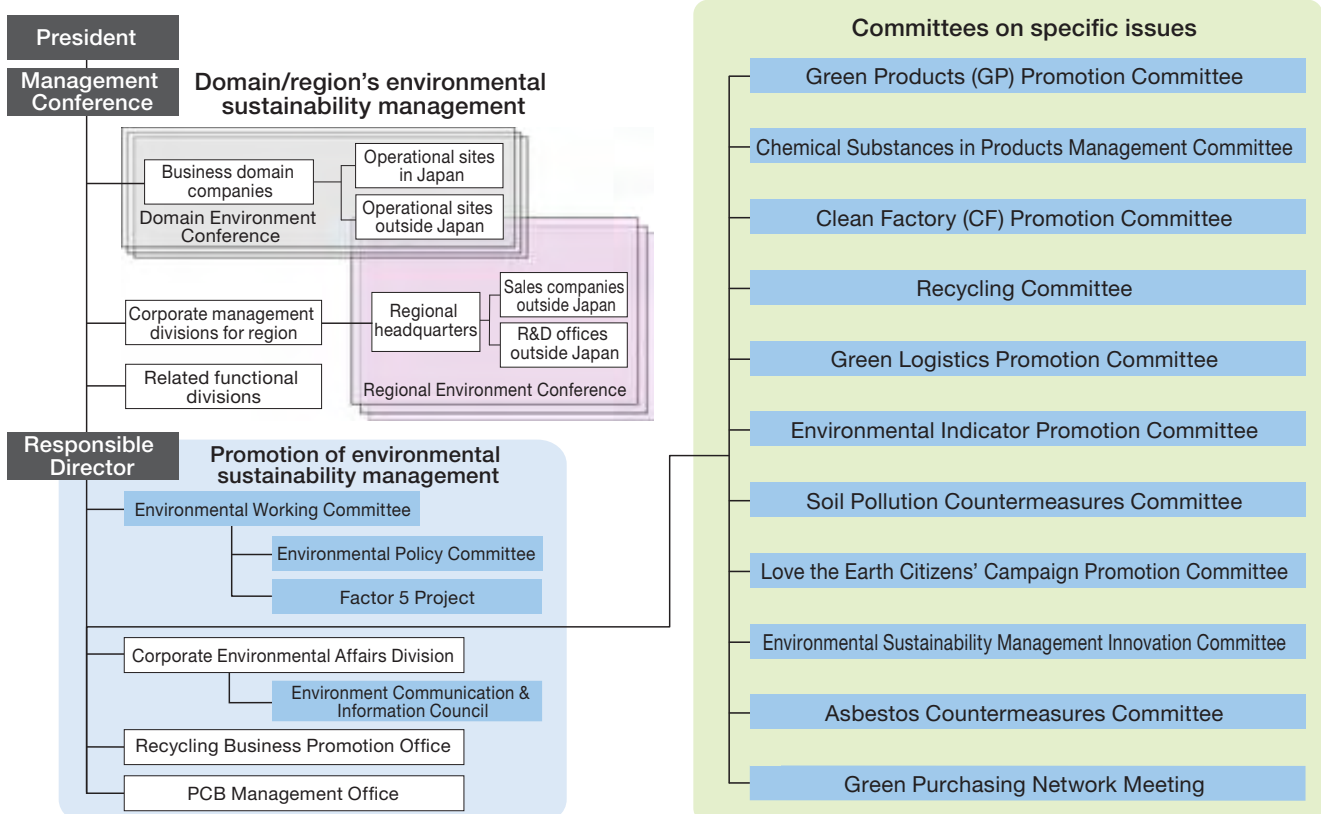
Developing environment specialists and defining their responsibilities

Since environmental activities are closely related to all business operations, it can sometimes be difficult to define and assign environment-related tasks within each business function. However, because of the strategic importance we place on environmental sustainability management, we have defined environmental sustainability requirements within each business function, and appointed staff members dedicated to environmental affairs.

To systematically promote the development of environmental specialists, we have also established the Environmental Human Resource Development Committee, with members comprising environmental managers from the head office and major business domain companies. Committee members prepare guidelines for nurturing the staff responsible for environmental affairs. In addition, this committee supervises educational programs and determines personnel policies that will help to promote environmental sustainability management. In so doing, we are making our reinforced environmental functions even more visible.

In April 2006, ahead of other Japanese manufacturers, we introduced our in-house skills evaluation system company-wide. This evaluation system is designed to enhance corporate productivity, as well as the skills of individual staff members.

■ Environmental sustainability management promotion system (fiscal 2008)



Activity 3

Environmental management systems

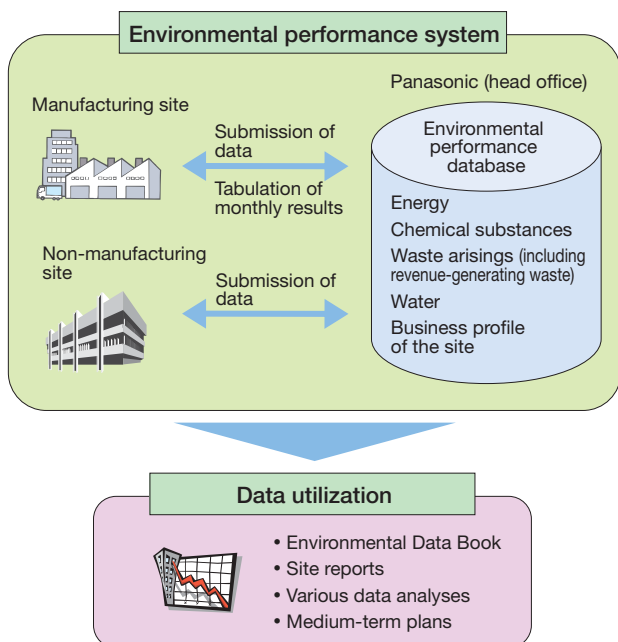
Panasonic is promoting Environmental Management Systems on two levels: on a group-wide inter-domain level and on the level of individual business domain companies/business sites. Individual business domain companies and business sites operate environmental management systems for which they have gained 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 arisings, 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 October 2006, we started Monthly Statement of 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 arisings, release and transfer of chemical substances, and water consumption, plus data on environmental impact reduction results, from each of our manufacturing sites. We 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 sustainability management. At present, the number of sites included in the target of this activity is limited, but in the future, we will expand the target to include all our manufacturing sites throughout the world.

■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. In fiscal 2007, a site in China newly obtained certification. During the fiscal year, however, as a result of promoting multi-site certification, the number of sites that acquired ISO 14001 certification decreased by 12 from the level in fiscal 2006.

■Acquisition of ISO 14001 certification (P61-64) (as of March 31, 2007)

Region	Number of certified sites*		Total
	Manufacturing	Non-manufacturin	
Japan	53	19	72
Americas	25	1	26
Europe	15	2	17
Asia/Oceania	50	10	60
China/Northeast Asia	62	1	63
Total	205	33	238

* 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 checking and improving environmental sustainability management.

■Performance evaluation criteria for environmental sustainability management (fiscal 2008)

Green Product rating		
Indicator	Criteria	
Green Product Development Rate	78%	
Clean Factory rating (global criteria)		
Category	Indicator	Criteria
Energy	Energy-conservation rate	Device segment: 7.0%
		Product-assembly segment: 3.5% (China: 5%)
Chemical Substances	Reduction rate of release/transfer of Key Reduction-target Substances	4% reduction
Waste	Reduction rate of total waste arisings	2% reduction
Water	Reduction rate of consumption	2.5% reduction

Environmental Education

Concept

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 business operations including the environmental impact of their products over the life cycle. In order to foster employees' environmental awareness, Panasonic has developed a wide-ranging environmental education system.

Activity

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

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

As part of their general education, we hold special seminars, including environmental education programs, for Japanese employees who are to be assigned to business sites outside Japan, six times a year. A total of 833 employees have attended these seminars held since 2004.

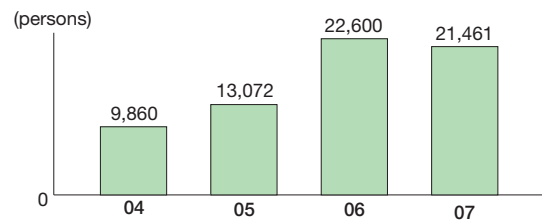
■ Environmental education system

	New employees	Employees	Management	
General	Introductory course	General environmental education (e-Learning/CD-ROM)		
		Seminars for employees to be dispatched outside Japan		
Professional	Environment	Seminars for promoted employees	Seminars for promoted employees	
		Seminars for new environmental staff (non-managers)	Seminars for new environmental staff (managers)	Environmental sustainability management seminars
		Basic seminars on environmental laws and regulations	Advanced seminars on environmental laws and regulations	
		Seminars for environmental auditors		
		Seminars for in-house environmental auditors		
		Seminars on chemical substance management		
		Seminars on waste management		
		Seminars on factory energy conservation		
		Procurement	Seminars on Green Procurement	
		Technology Quality control	Techno School on specified chemical substances	
3R design seminars				

● 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. The program consists of two parts, general knowledge on environmental issues and initiatives taken by Panasonic and its group subsidiaries. To complete this program, employees must pass tests associated with the respective sections of the textbook (five sections for the former part and six sections for the latter part). Some domain companies and business sites independently provide their own general environmental education, and the number of employees who have completed the e-learning system has already exceeded 20,000. We have also produced CD-ROMs with the same content for use in collective education provided at our manufacturing sites.

■ Employees who have completed the general environmental education using the e-learning system via 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 2007, we held an environmental sustainability management seminar, in which participants discussed problems on environmental sustainability and conducted field surveys to investigate advanced examples thereby increasing their environmental know-how and knowledge.

■ Professional education seminars held in the past

Name of seminar	Number of participants	Frequency
Environmental sustainability management seminar	17	1
Seminar for new environmental staff	24	1
Basic seminar on environmental laws and regulations	62	2
Seminar on chemical substance management	77	2
Seminar on waste management	26	1
Seminar on factory energy conservation	16	1
Total	222	8



Field survey by participants in the special seminar on environmental sustainability management

There are many environmental risks associated with manufacturing activities, including those with environmental accidents, pollution, and compliance with environmental laws and regulations. To improve our readiness for such potential events, 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

Giving first 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 prepared 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. Furthermore in fiscal 2003, in accordance with the enhancement of environmental laws and regulations, we reinforced our measures to survey and prevent contamination by volatile organic compounds (VOC) and heavy metals based on our Soil and Groundwater Risk Management Policy. Wherever contamination has been detected, we immediately implement remedial measures and hold explanatory meetings and voluntarily make an announcement about the contamination through mass 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)
Definition of "placing under management supervision"
<ol style="list-style-type: none"> 1. Completing surveys 2. Initiating remedial measures 3. Digging inspection wells 4. Implementing spread preventive measures 5. Promoting thorough operational management

Activity

Results of soil and groundwater surveys and remedial measures

In relation to soil and groundwater contamination risks,

we placed all of our business sites in Japan (143 at that time) under management supervision in fiscal 2004, and in fiscal 2006 we placed all of our business sites outside Japan (152 sites in 22 countries at that time) under management supervision. In addition to surveying the use of VOCs and heavy metals at these sites, we conduct historical surveys through on-site inspections and interviews and identify the business sites where surface soil surveys should be conducted. In the 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.

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 own criteria.

Soil and groundwater pollution surveys and remedial measures

	Historical surveys conducted	Surface soil surveys conducted	Pollution exceeding the standard level detected	Remedial measures completed	Remedial measures underway
Japan	143* ¹	105	78	41	37
Outside Japan	152* ²	57	9	1	8
Total	295	162	87	42	45

* Excluding Matsushita Electric Works, Ltd. and PanaHome Corporation

*¹ Investigation in fiscal 2003

*² Investigation in fiscal 2006

Case Reducing environmental risks through equipment improvement

Panasonic do Brazil Ltda. (PANABRAS) is committed to preventing soil and groundwater contamination by improving its waste management facilities. Specifically, in order to prevent the leakage of waste into soil from older equipment, the company installed an extra polyethylene storage tank. Also, it relocated the tanks and pipes buried underground above the ground, and replaced some of their parts with those that do not easily get oxidized to prevent leakage of pollutants due to erosion in the tanks and pipes. In addition, at its wastewater treatment facilities, the company reinforced the floors with concrete materials and installed additional tanks to prevent leakage during the treatment process and overflow of wastewater in the rainy season. PANABRAS is thus constantly implementing measures to reduce environmental risks.



Waste treatment facilities (before improvement)



Waste treatment facilities (after improvement)

Initiatives to Address PCB Pollution

Concept

Properly managing PCB waste and purifying contaminated soil to reduce environmental risks

Panasonic discontinued the use of polychlorinated biphenyls (PCB) 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-filled capacitors buried at five of our factories, which we voluntarily declared 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 the Japan Environmental Safety Corporation (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

In fiscal 2006, Panasonic completed the early application procedures to commission JESCO, a special governmental corporation dedicated to PCB waste treatment, to decontaminate its PCB-filled transformers and capacitors weighing more than 10 kg and PCB oil. Subsequently, in March 2007, all our group companies in Japan concluded agreements to commission the appropriate treatment of PCB waste with JESCO.

■ Treatment of PCB-filled 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 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

We will continue to collaborate with JESCO in the decontamination of such waste.

As of the end of March 2007, a total of 131 PCB-filled high-pressure capacitors were decontaminated.

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

Type of waste	Registered with JESCO	Already decontaminated
Transformers and capacitors	2,132 devices	131 devices
PCB oil and PCB-containing oil	Approx. 4,700 kg of PCBs and PCB-containing oil	—

* As of March 31, 2007

■ Collection and delivery of PCB to JESCO



Placing a capacitor in a container



Preparation for delivery

Activity 2

Towards the purification of PCB-contaminated soil

At the aforementioned five factories, we have completed measures to prevent the spread of soil contamination. Regarding the excavation of buried PCB waste, we have completed the necessary measures at four of the factories. At the remaining factory, Panasonic Electronic Devices Matsue, we are continuing efforts to complete the excavation work by the end of fiscal 2009.

■ Excavation of buried PCB-filled devices at Panasonic Electronic Devices Matsue



Excavation work



Storing unburied items

Partnership with an International NGO, the Natural Step

Listening to third-party opinions for the implementation of the PDCA cycle in our environmental sustainability management

In 2001, we entered into a partnership with the Natural Step, an international non-governmental organization (NGO), aimed at contributing to the creation of a sustainable society. In 2007, we asked the Natural Step Sweden and its branch in the United Kingdom to conduct sustainability analyses to evaluate whether we, as a global company, are implementing appropriate environmental measures in line with the world's movement toward the creation of a sustainable society. We will utilize the results of this work in the implementation of the PDCA cycle in our environmental sustainability management. From the perspective of the Four System Conditions for sustainable society, the Natural Step evaluated our sustainability initiatives using "backcasting," a method of evaluating an organization's current initiatives from the viewpoint of the desired state of a future sustainable society.

We will take all the opinions voiced by the NGO into account when formulating and implementing our future plans.

Opinions presented by the Natural Step at the Sustainability Analysis Dialogues 2007

Focus on measures against climate change

- It is essential for Panasonic to implement measures against climate change. CO₂ emissions from its factories should be kept at least on the same level, in absolute terms.
- It is required for Panasonic, as a leading company, to demonstrate energy creation and carbon neutral measures, and to avoid offsetting CO₂ emissions from its factories with CO₂ emission reductions achieved by at its customers when formulating its comprehensive greenhouse gas reduction strategies.
- Panasonic should promote CDM projects in China.

Promotion of Green Products (GP) in the market

- Panasonic should promote the marketing of its Super GPs and Superior GPs.
- The targets set for GPs are not challenging enough. As a leading company, Panasonic should set higher targets. In setting GP accreditation criteria, it should incorporate the opinions of general consumers.
- The new environmental mark would not be accepted in Europe, because it is based on in-house criteria, which is not suitable for comparing the environmental performance of Panasonic's products with that of competitors' products. Panasonic should use an environmental mark set by an external organization.
- Panasonic should announce the percentage of its GPs in the total sales of its products. The current GP development rate, which is associated with the products developed in the fiscal year, is just an in-house target, which does not interest the general public.

Improvement of communication skills

- Panasonic reports cover too much ground. They do not give due consideration to readers.
- The messages are not always so attractively presented.
- Panasonic needs to disclose information in consideration of what people outside the company want to know, including those living outside Japan. It should publish global reports covering various markets around the world.

General comments

- There were no major improvements from the previous year.
- Panasonic should more clearly show its mission and vision for sustainability. It must shift its focus from "less environmental impact" to "100% sustainable."
- The Eco & Ud HOUSE is a very good example that shows Panasonic's commitment to sustainability.
- Panasonic should formulate a strategy to attain the targets for the Factors for One Household: the actual results are not satisfactory compared with the numerical targets.

First day of the meeting



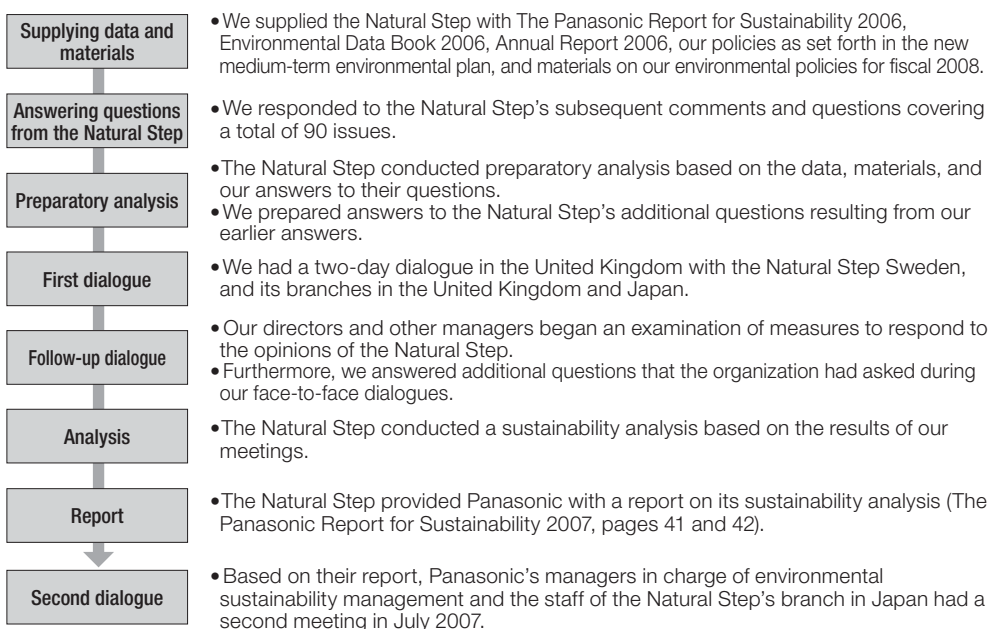
London (February 5, 2007)

Second day of the meeting



London (February 6, 2007)

Flowchart of sustainability analyses (2007)



The Natural Step

This international NGO, with branches in 11 countries, was established in 1989 by Dr. Karl-Henrik Robert in Sweden. In consensus with scientists, the Natural Step has identified the key requirements for a sustainable society. Many environmentally-advanced countries and international business corporations refer to these conditions in determining their sustainability strategies.

 www.tnsij.org/

the NATURAL STEP 



Independent Review Report on "Matsushita Group Environmental Data Book 2007"

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

1. Purpose and Scope of Our Review

We have reviewed "Matsushita Group Environmental Data Book 2007" (the "Data Book 2007") of Matsushita Electric Industrial Co., Ltd. (the "Company") for the year ended March 31, 2007. 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, 2006 to March 31, 2007 described in "Green Plan 2010" (the "Indicators") included in the Data Book 2007. The Data Book 2007 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 "International Standard on Assurance Engagements 3000" (December 2003) issued by International Federation of Accountants (IFAC) and the criteria which are the standards the Company compiled (the "Company's Standards") and are shown in the Company's website (http://panasonic.net/eco/data_file/review2007e.pdf) as well as the code of the Japanese Association of Assurance Organizations for Environmental 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 2007, interviewed the Company's responsible personnel.
- ② Assessed the Company's Standards used for the 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 facility domestic and overseas.
- ⑥ Assessed the completeness of the Data Book 2007 in accordance with the applicable provisions of the code of the Japanese Association of Assurance Organizations for Environmental 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.

As a result of the procedures performed, we are not aware of any material modifications that should be made to the Indicators in the Data Book 2007 in order for them to comply with the Company's Standards for the rational collecting, compiling and reporting such information, or in order for them to report the complete material environmental information.

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 Ministry of the Environment, Japan Government.

KPMG AZSA Sustainability Co., Ltd.

KPMG AZSA Sustainability Co., Ltd.

Osaka, Japan
May 28th, 2007

ISO 14001 Certification Sites

*When certification organizations change, the "Date of Registration" refers to the latest dates when certification is registered under new organizations.

Type	Sites	Major Products	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., Utsunomiya Site	Semiconductor, Magnetron	JACO	EC97J1033	1997 JUN
	Panasonic Semiconductor Discrete Devices Co., Ltd., Multiple-site Certification Group (3 sites)	Crystal terminal, Diode, Lead frame, Circuit component	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 Group (3 sites)	Batteries	LRQA	YKA0773053	1998 APR
	Osaka Site Multiple site certification (2sites)	Lithium battery, Alkaline manganese battery	LRQA	YKA0771898	1998 JUL
	Panasonic Electronic Devices Co., Ltd.				
	Multiple-site Certification Group (22 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.				
	Kofu Site	Electronic chip mounter	JACO	EC97J1137	1997 DEC
	Tosu Site	Electronic chip mounter	LRQA	YKA0771759	1997 AUG
	Matsushita Welding Systems Co., Ltd.				
	Multiple-site Certification Group (2 sites)	FA/Welding equipment, Welding robot	JACO	EC97J1213	1998 MAR
	Panasonic AVC Networks Company				
	Multiple-site Certification Group (11 sites)	TV, DVD, Audio equipment, DSC, PC,PDP	JACO	EC98J2010	1995 NOV
	Panasonic Communications Co., Ltd.				
	Saga Site	Printer, Scscaner	LRQA	YKA0771152	1997 JUL
	Kumamoto Site	DVD Multi drive, COMBO drive	LRQA	YKA0771785	1998 MAR
	Oita Site	Motor	LRQA	YKA0771777	1998 MAR
	Utsunomiya Site	Toner, Laser scanning unit	JACO	EC97J1223	1998 MAR
	Nigata Site	Digital imaging system, Facsimile, PPC	JACO	EC97J1020	1997 MAY
	Shonan Site	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, Matsushita Refrigeration Company				
	Household Appliances Business Group, Laundry Systems Business Unit (3 sites)	HA headquarters research function, Automatic washing machine, Dish washer & dryer	JET	E98-053	1998 JUL
	Vacuum Cleaner Business Unit	Vacuum cleaner, Garbage disposer	JACO	EC98J1017	1998 JUN
	IH Cooking Equipment Business Unit	IH cooking heater	JET	E06-525	1998 JUN
	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, Gas water heater	JACO	EC97J1124	1997 NOV
	Refrigeration & Air Conditioning Business Domain Multiple-site Certification Group (9 sites)	Air conditioner, Refrigerator, Compressor, Vending machine	LRQA	YKA0771754	1997 OCT
	Lighting Company				
	Multiple-site Certification Group (4 sites)	Fluorescent lamp, light bulb, CRT, PDP	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, Healthcare & heating equipment, Medical product	JACO	EC97J1224	1998 MAR
	Victor Company of Japan, Ltd.				
Headquarters	Circuit products, Media products	JACO	EC98J1095	1998 NOV	
Hachioji Site	Monitoring equipment, Professional audio equipment	JACO	EC99J2049	1997 JAN	
Rinkan Site	CD, DVD	JACO	EC97J1011	1997 APR	
Yokosuka Site	Camcorder	JQA	JQA-E-90053	1997 SEP	
Mito Site	DVC tape	JACO	EC97J1244	1998 MAR	
Yamato Site	DVD disc, Optical pickups	JACO	EC98J1048	1998 AUG	
Maebashi Site	Speaker	JACO	EC98J1051	1998 AUG	
Victor Iesaki Electronics Co., Ltd.	Circuit board assembly	JQA	JQA-EM0276	1998 DEC	
Matsushita Electric Works, Ltd.					
Multiple-site Certification Group (6 sites, 2 Sales Group, Head Office)	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 (4 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 home appliances	JACO	EC01J0383	2002 MAR	

Type	Sites	Major Products	Certification Organizations	Certification Number	Date of Registration
Japan (Manufacturing)	National Bicycle Industrial Co., Ltd.	Bicycle, Electromotive bicycle, Electrical device	JACO	EC99J1013	1999 MAY
	National Tyre Co., Ltd.	Bicycle tire, Tube, Industrial resin component	CJ	CI/1185E	2003 DEC
	Wakayama Machine Tools Co., Inc.	Compressor	JACO	EC98J1124	1998 DEC
Japan (Non-manufacturing)	Matsushita Electric Industrial Co., Ltd., Head Office		JACO	EC98J1057	1998 SEP
	Matsushita Electric Industrial Co., Ltd., Tokyo Site		JACO	EC98J1049	1998 AUG
	Matsushita Electric Industrial Co., Ltd., Twin21 OBP Panasonic Tower		JACO	EC99J1012	1999 MAY
	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
	Matsushita Electric Industrial Co., Ltd. Panasonic Center Tokyo		JACO	EC04J0461	2005 FEB
	Panasonic Communications Co., Ltd., Fukuoka Headquarters		LRQA	YKA0771775	1997 DEC
	Panasonic Communications Co., Ltd., Meguro Site		JACO	EC01J0209	2001 DEC
	Panasonic Mobile Communications Co., Ltd., Research Laboratory, Multiple-site Certification Group (3 sites)		LRQA	YKA0773020	2002 MAR
	Matsushita Denko Techno Service Co., Ltd.		LRQA	YKA4002692	2003 DEC
	Matsushita Electric Works Building Management Co., Ltd.		LRQA	YKA0773076	2002 DEC
	Matsushita Electric Works Engineering, Ltd.		JTCCM	RE0409	2005 JAN
	Panasonic System Solutions Marketing Co., Ltd.		JACO	EC00J0177	2000 DEC
	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		JACO	EC99J1131	1999 DEC
Matsushita Industrial Safety Science Center		JACO	EC99J1234	2000 MAR	
Matsushita Logistics Co., Ltd.		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	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 Home Appliances Company of America	Vacuum cleaner	DNV	CERT-02193-2005-AE-HOU-ANAB	1999 FEB
	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 Primary Battery Corporation of America	Dry battery	BVQI	163992	1999 JAN
	Panasonic Electronic Devices Corporation of America	Electrolytic capacitor, Car speaker	AWM	12	1997 AUG
	Panasonic Disc Manufacturing Corporation of America	DVD disc	UL	A6976	1999 APR
	Panasonic Avionics Corporation	Avionics	UL	A9111	2001 JAN
	Panasonic Shikoku Electronics Corporation of America	TV-video combo unit	UL	A6578	1999 DEC
	JVC Disc America Co. (Tuscaloosa)	CD, DVD (package software)	AWM	86	2000 AUG
	Panasonic de Mexico, S.A. de C.V.	Color TV, Stereo	TUV	950 99 0441	1999 JUN
	Panasonic Electronic Devices de Baja California, S.A. de C.V.	TV tuner, CATV set-top box	BSI	EMS 39292	1998 APR
	Panasonic Battery de Baja California, S.A. de C.V.	Ni-Cd battery, Nickel hydride battery	BSI	FM 38090	1998 APR
	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, Deflected yoke	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
	JVC Industrial of Mexico, S.A. de C.V.	TV, Projection TV	BSI	EMS 38385	1997 DEC
	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	117017	1999 MAR
	Panasonic Peruana S.A.	Dry battery	DNV	3439-1998-AE-SPA-RvA	1998 MAY
	Panasonic do Brasil Ltda.	TV, Camcorder, Audio equipment, Microwave oven, Battery	BVQI	198378	1999 JAN
	Panasonic Electronic Devices do Brasil Ltda.	Speaker, Coil, Transformer	FCAV	SGA-229	1999 MAR

Type	Domain/Affiliated Company Sites	Major Products	Certification Organizations	Certification Number	Date of Registration
Europe (Manufacturing)	Panasonic Electronic Devices (U.K.) Ltd.	Car speaker, Keyboard	BMTRADA	EMS 45625	1997 APR
	Panasonic Manufacturing U.K. Ltd.	Microwave oven, Set-top box, PC	BSI	4695997	1997 JUL
	Panasonic Communications Company (U.K.) Ltd.	PBX, Phone-related equipment	BSI	34828	1996 SEP
	JVC Manufacturing U.K. Limited	TV, Monitor	SGS	QAE1103	1998 APR
	Panasonic AVC Networks Germany GmbH	DVD player	SKQS	CA-1251/06	1997 DEC
	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

Type	Domain/Affiliated Company Sites	Major Products	Certification Organizations	Certification Number	Date of Registration
Europe (Manufacturing)	Panasonic Electronic Devices Slovakia s.r.o.	Tuner, Power transformer	ITQ	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	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.	Electronic components	AJA	AJA98/1151	1998 APR
	Panasonic Factory Solutions Singapore Pte. Ltd.	Electronic chip mounter	TUV SUD PSB	97-0019	1997 DEC
	Panasonic AVC Networks Singapore Pte. Ltd.	Mini component stereo	BVQI	SGPSGP001177	1997 FEB
	Panasonic Refrigeration Devices Singapore Sdn. Bhd.	Refrigerator compressor	PSB	96-0004	1996 NOV
	JVC Electronics Singapore Pte. Ltd.	Car audio equipment, Audio equipment	PSB	98-0045	1998 DEC
	Panasonic Manufacturing Malaysia Bhd.	Electric home shower, Fan, Rice cooker, Ventilation fan, Battery	SIRIM	P07560001	1996 DEC
	Panasonic Semiconductor Discrete Devices (M) Sdn. Bhd.	Semiconductor	SIRIM	P07570001	1998 DEC
	Panasonic Electronic Devices Malaysia Sdn. Bhd.	Electronic components	SIRIM	P0719002	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, VCR	BVQI	200336	1997 FEB
	Panasonic Communications (Malaysia) Sdn. Bhd.	Deflected yoke, Fly-back transformer, Facsimile	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
	JVC Video Malaysia Sdn. Bhd.	VCR, Camcorder	LRQA	KLR 0772056	1999 MAY
	JVC Electronics Malaysia Sdn. Bhd.	Audio equipment, Component (motor, VCR drum)	LRQA	KLR 0772057	1999 MAY
	Panasonic (Thailand) Co., Ltd. Group	Color TV, Electronic component, Electric fan, Car audio equipment, Motor	AJA	AJA98/1203	1998 JUL
	Panasonic Battery (Thailand) Co., Ltd.	Dry battery, Storage battery, Battery application equipment	SGS	TW01/53028EM	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
	MT Picture Display (Thailand) Co., Ltd.	Color TV CRT	BVQI	161000	1998 APR
	JVC Manufacturing Thailand Co., Ltd.	Fly-back transformer, TV, CCTV camera	MASCI	EMS05020/197t	1999 APR
	JVC Components Thailand Co., Ltd.	Component (Motor, Optical pickup)	SGS	E17387	2000 JAN
	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 (Ayutthaya) 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	1998 MAY
	Panasonic Communications Philippines Corporation	Digital imaging system, MPU coolant fan	SGS	CH04/0051	2004 JAN
	PT. Panasonic Manufacturing Indonesia	TV, Audio equipment, Refrigerator, Air conditioner, Washing machine, Pump	SGS	E11900	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 Battery Batam	Ni-Cd battery, Solar battery	LLOYD'S	403934	1998 JAN
	PT. Panasonic Electronic Devices Indonesia	Electronic components	JACO	EC04W0004	1999 MAR
	PT. Panasonic Electronic Devices Batam	Electronic components	AJA	AJA04/7248	2004 FEB
	PT. Panasonic Lighting Indonesia	PA-LOOK Ball, Fluorescent lamp	LRQA	JKT 403244	1999 DEC
	PT. Panasonic Shikoku Electronics Indonesia	VCR, Camcorder, DVD, TV combo	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. JVC Electronics Indonesia	Car stereo, Audio equipment	KEMA	79964	1999 MAY
	PT. MT Picture Display Indonesia	Color TV CRT	BVQI	149021	2000 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
	JVC Vietnam Ltd.	TV, Audio equipment, DVD	TUV	711	2001 APR
	Panasonic Battery India Co., Ltd.	Dry battery	TUV	04 104 01 0402 -E3	1997 DEC
Panasonic Carbon India Co., Ltd.	Dry battery carbon rod	TUV	04 104 2000 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	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	0104E20900ROL/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	CEEMS	02105E10122R1M	2002 DEC
	JVC Beijing Electronic Industries Co., Ltd.	DVD, Digital video camera	BVGI	186884	1999 AUG
	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	CH05/0248	1999 JAN
	Panasonic Welding Systems (Tangshan) Co., Ltd.	Welding equipment	CEEMS	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.	VCR, DVD-related equipment	CCCI	006R2	1998 JUN
	Panasonic Automotive Systems Dalian Co., Ltd.	Car audio equipment	CCCI	019R2	1998 DEC

Type	Domain/Affiliated Company Sites	Major Products	Certification Organizations	Certification Number	Date of Registration
China/Northeast Asia (Manufacturing)	Panasonic Communications (Dalian) Co., Ltd.	Cordless phone, Optical disc drive	CQC	00106E20109ROM/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	0105E20066ROM/3200	1998 OCT
	Panasonic Refrigeration Devices (Wuxi) Sdn. Bhd.	Refrigerator compressor	CCCI	02104E10188R3L	1998 OCT
	Panasonic Battery (Wuxi) Co., Ltd.	Ni-Cd battery, Nickel hydride battery	CQC	0106E2234ROL/3200	2006 JUN
	Panasonic Motor (Hangzhou) Co., Ltd.	Home appliance, Compact air conditioner motor	CCCI	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 compressor	CCCI	02107E10081R3L	1998 NOV
	Panasonic Semiconductor (Shanghai) Co., Ltd.	Semiconductor	BVQi	167142	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
	JVC Shanghai Electronics Industries Co., Ltd.	DVD, Audio equipment, Car audio equipment	CEEMS	1-041	1998 JUN
	Panasonic Electric Works (Shanghai) Co., Ltd.	Bath tub, Dressing counter	BSI	EMS69083	2002 AUG
	Panasonic Electric Works Automation Controls (Shanghai) Co., Ltd.	Programmable 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 AUG
	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	01206E10056ROM	2006 JAN
	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	CEEMS	01-1998-071	1998 DEC
	SUZHOU SUNX Limited	Photoelectric sensor, Proximity sensor	CQC	0105E10379ROM/3200	2005 NOV
	Panasonic AVC Networks Xiamen Co., Ltd.	Portable CD 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	CCCI	02104E10220R2L	1998 AUG
	JVC Guangzhou Electronics Co., Ltd.	Component (Motor)	EPRE	03 1999 006	1999 NOV
	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	01205E10046R2M	1999 OCT
	Fujian JVC Electronics Co., Ltd.	Component (Deflection yoke)	JQA	JQA-EM3430	2003 OCT
	Panasonic Ecology Systems Guangdong Co., Ltd.	Ventilation fan, Kitchen-hood, Ceiling fan	CCCI	02105E10054R2L	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.	Alkali storage battery	CCCI	01-2002-054	1998 SEP
	Panasonic Motor (Hangzhou) Co., Ltd.	AV/OA motor	SGS	GB05/64450	1998 OCT
	Panasonic Communications Zhuhai Co., Ltd.	Cordless phone, Facsimile	CQC	0106E20702R0M/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	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	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 Electronic Device Europe GmbH	Sales of electronic components	TUV	31342301	1999 JAN
	Panasonic Mobile Communications Development of Europe Ltd.	Development of cellular phones	BSI	EMS34515	1996 JUL
	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 Motor Singapore Pte. Ltd.	R&D on brushless motor	SGS	TW01/53815EM	1998 NOV
	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, 2007)

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
	1972 •Environmental Management Office established	1972 •U.N. Conference on Human Environment held in Stockholm (Declaration of Human Environment adopted)	1971 •Environment Agency established
	1975 •Environmental Management Regulations enacted	1973 •First oil shock occurred	
1980s		1979 •Second oil shock occurred	1979 •Energy Conservation Law enacted
		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 1989 •Environmental Protection Promotion Office established		1988 •Ozone Layer Protection Law enacted
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 •Won Stratospheric Ozone Protection Award presented by U.S. Environmental Protection Agency		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
	1997 •Corporate Environmental Affairs Division (CEAD) established •Environmental Conference established (held semi-annually)	1997 •Kyoto Protocol adopted in COP3 held in Kyoto	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 •Verification experiments of used TV recycling launched •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 •Won the Director-General's Prize in the Environmental Reporting Awards		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 opened •Won the Grand Prize in the 11th Global Environmental Awards	2002 •Johannesburg Summit (Rio+10) held	2002 •Kyoto Protocol ratified •Vehicle Recycling Law enacted •Law for Countermeasures against Soil Pollution enacted
	2003 •Coexistence with the Global Environment established 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 Certification Program launched •Achieved zero waste emissions in Japanese manufacturing business units (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 Certification Program 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 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 by the UN as CDM projects •A new environmental mark introduced	2007 •The Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) released •Registration, Evaluation, Authorisation and Restriction of Chemicals entered into force in EU	

Environmental Performance Data


Domain reports panasonic.net/eco/data/ (subsidiaries and affiliated companies)

Subsidiaries and affiliated companies in the Group disclose their own environmental performance data.

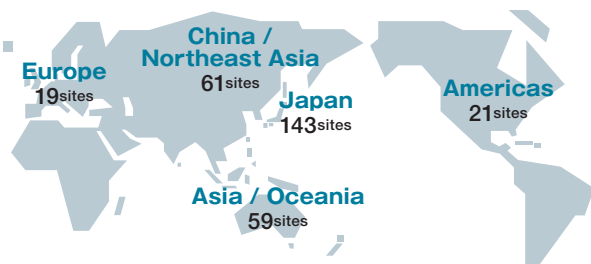
- ▶ Semiconductor Company*
 panasonic.co.jp/semicon/environment/en/
- ▶ Lighting Company
- ▶ Motor Company*
 panasonic.co.jp/motor/eng/environment/
- ▶ Panasonic AVC Networks Company*
 panasonic.co.jp/pavc/en/environment/
- ▶ Panasonic Automotive Systems Company*
 panasonic.co.jp/pas/environment/en/
- ▶ Panasonic System Solutions Company*
 panasonic.co.jp/pss/eco/en/
- ▶ Home Appliances Group*
 panasonic.co.jp/appliance/global/environment/
- ▶ Healthcare Business Company
- ▶ Panasonic Factory Solutions Co., Ltd.*
 panasonic.co.jp/pfsc/environment/en/
- ▶ Panasonic Communications Co., Ltd.*
 panasonic.co.jp/pcc/eco/en/
- ▶ Panasonic Mobile Communications Co., Ltd.*
 panasonic.co.jp/pmc/environment/en/
- ▶ Panasonic Electronic Devices Co., Ltd.*
 panasonic.co.jp/ped/en/environment/
- ▶ Matsushita Battery Industrial Co., Ltd.*
 panasonic.co.jp/mbi/environment/en/
- ▶ Matsushita Welding Systems Co., Ltd.*
 panasonic.co.jp/mwsc/environment/en/
- ▶ Matsushita Ecology Systems Co., Ltd.
- ▶ Panasonic Shikoku Electronics Co., Ltd.
 panasonic.co.jp/psec/en/environment/
- ▶ Matsushita Electric Works Ltd.*
 www.mew.co.jp/e/corp/csr/performance/
- ▶ PanaHome Corporation
- ▶ Victor Company of Japan Ltd.
 www.jvc-victor.co.jp/english/company/environt/

* Companies which have their own website to report environmental activities





Site reports (manufacturing sites)

 panasonic.net/eco/data/siteindex.html

Manufacturing sites in the Group disclose one's their own environmental performance data (including several non-manufacturing sites).



Information Disclosure on the Internet

- ▶ Environmental Activity
 panasonic.net/eco/
- ▶ IR info
 ir-site.panasonic.com/
- ▶ Corporate Social Responsibility (CSR)
 panasonic.net/csr/
- ▶ Corporate Citizenship
 panasonic.net/citizenship/

Reports of Panasonic



The Panasonic Report for Sustainability(Download)
Corporate Citizenship Activity Report(Download)


 panasonic.net/csr/reports/



Annual Report(Download)

 ir-site.panasonic.com/annual/

Environmental Data Book(Download)


 panasonic.net/eco/rpt/

Environmental Data Files



 panasonic.net/eco/data_file/

Information Transmission and Reception Facilities


Eco & Ud HOUSE

 panasonic.co.jp/euhouse/en/
+81-3-3599-2600

Panasonic Center TOKYO

 panasonic.net/panasonic-center/tokyo/
 [panasonic.co.jp/center/tokyo/cn/\(Chinese\)](http://panasonic.co.jp/center/tokyo/cn/(Chinese))
+81-3-3599-2600


Panasonic Center OSAKA

 panasonic.net/panasonic-center/osaka/
+81-6-6949-2111

National Center TOKYO

 national.jp/center/tokyo/en/
+81-3-6218-0010

National Center OSAKA

 national.jp/center/osaka/en/
+81-6-6943-9575

Matsushita Eco Technology Center

 panasonic.co.jp/eco/metec/en/

Inquiries

Corporate Environmental Affairs Division
Matsushita Electric Industrial Co., Ltd.
1006 Kadoma, Kadoma City, Osaka 571-8501, Japan
TEL +81-6-6908-1243 FAX +81-6-6909-1163
E-mail eco@gg.jp.panasonic.com

Panasonic

ideas for life

