HITACHI
Inspire the Next

# Hitachi Appliances Environmental Report 2007

# Pursuing positive environmental activities to build a sustainable society

## ■Company Overview

| | |
|---|---|
| Company name | Hitachi Appliances, Inc. |
| Main business | Development, manufacture, and sales of comprehensive air conditioning systems and home appliances |
| Representative | Takazumi Ishizu, President and Director |
| Capital | ¥20 billion (wholly owned by Hitachi, Ltd.) |
| Date established | April 1, 2006<br>(Merger of Hitachi Air Conditioning Systems Co., Ltd. and Hitachi Home & Life Solutions Inc.) |
| Head office | Hitachi Atago Bldg., 15-12, Nishi Shimbashi 2-chome, Minato-ku, Tokyo |
| Number of employees (consolidated) | Approx. 17,000 (As of April 2007) |
| Website | http://www.hitachi-ap.com/ |

## ■Main Products (As of July 2007)

### Air Conditioning

**Air Conditioning Products**

●Packaged air conditioners for stores and offices ●Multi-air conditioners for buildings ●Packaged air conditioners for equipment ●Gas heat pump air conditioners ●Water Chillers ●Spot air conditioner

**Large Heating and Cooling Products**

●Centrifugal chillers ●Absorption chiller-Heaters ●Cogeneration systems

**Low-Temperature Equipment Products**

●Scroll chillers ●Refrigerator and freezer units ●Scroll cooling systems ●Unit coolers ●Screw chillers ●Examples of eco-products ●Industrial dehumidifiers

**Environmental Control Products**

●Clean systems and equipment ●Clean bench and associated equipment ●Anti-bio hazard systems and equipment ●Environmental testing equipment ●Super low-temperature freezers

### All-Electric Housing

**IH cooking heater**

●IH cooking heater

**Heat Pump Water Heaters**

●Tap water direct pressure type (slim model) ●Standard type ●Multifunction type ●Single-unit type ●Industrial high-capacity types

**Electric Water Heaters**

●Fully automatic ●Powerful slim ●Reheating of bath tub water standard ●Atatame Jozu ●Semi-automatic ●Standard microcomputer ●Standard ●Integrated heating and water heater system (For customers of Hokkaido Electric Power)

### Home Appliances

**Kitchen**

●Refrigerator ●Microwave oven ●IH cooking heater ●Food waste disposer ●Rice cooker

**Housework and life**

●Washer-dryer ●Vacuum cleaner

**Air Conditioning, Cooling, and Heating**

●Home room air conditioner ●Ventilation fan ●Air cleaner

**House Equipment**

●Home water heaters ●Inverter pump

**Stores, etc.**

●Industrial water heaters

## Hitachi Appliances Action Guidelines for Environmental Conservation

These guidelines set forth Hitachi Appliances' action for addressing environmental conservation in relation to its business activities based on the "Hitachi Appliances Group Standards of Corporate Conduct"

### Purpose

In order to realize an environmentally harmonious and sustainable society through products and services, Hitachi Appliances is committed to meeting its social responsibilities by promoting globally-applicable "MONOZUKURI" (designing, manufacturing, or repairing of products), which is aimed at reducing environmental burdens of products throughout their entire life cycles, ensuring environmental conservation.

### Action Guidelines

1. Global environmental conservation is a critical challenge shared by all humans. Hitachi Appliances is committed, therefore, to fulfilling its responsibilities by assisting in the realization of an environmentally harmonious and sustainable society as one of its management priorities.
2. Hitachi Appliances will make efforts to contribute to society by developing highly reliable technologies and production processes, while identifying needs considering concerns related to global environmental conservation and limited resources.
3. Members of the board in charge of environmental conservation are responsible for facilitating appropriate environmental conservation activities. Departments responsible for environmental conservation should endeavor to promote and ensure environmental conservation activities, including improving environment-related rules and regulations and setting goals for environmental burden reduction. These departments should also confirm that their environmental conservation activities are conducted in a proper manner and ensure that these activities are maintained and improved.
4. Hitachi Appliances will promote globally-applicable "MONOZUKURI" with the aim of reducing environmental burdens at every stage, including product research and development, design, production, distribution, sales, usage, and final disposal.
5. Hitachi Appliances will investigate and review the environmental impact caused in the course of its "MONOZUKURI" processes. Hitachi Appliances will also introduce excellent technologies and materials useful to safeguard the environment, in other words, to reduce environmental burdens through energy and resource saving, chemical substance management, recycling, and other measures.
6. Hitachi Appliances' environmental conservation efforts are not only to be focused on observing international environmental regulations and those of national and local governments, but also on conserving the environment by implementing voluntary environmental standards when necessary.
7. Regarding globally-applicable "MONOZUKURI" activities, impact on the local environment and community are to be considered. In addition, measures that meet local communities' requests should be implemented.
8. Hitachi Appliances will educate its employees on the observance of environment-related laws, raise their environmental awareness, and encourage their interest in society at large and broad-based environmental conservation activities.
9. Hitachi Appliances will evaluate potential environmental problems and prevent them from occurring. In the event that any environmental problem occurs, Hitachi Appliances will take appropriate measures to minimize the impact on the environment.
10. Hitachi Appliances will make efforts to disclose information on its environmental conservation activities to its relevant stakeholders. Hitachi Appliances will also actively communicate with these stakeholders so as to strengthen mutual understanding and forge cooperative relationships with them.


【Sustainability Compass】

## Eco-Mind & Global Environmental Management

Throughout our entire group, we will create an advanced eco-mind and the power to transform it into action and build / operate a global management and evaluation system.

## Next-Generation Products & Services

We will continue to make innovations for highly competitive products and services that will contribute to structuring a sustainable society and deploy new business models.

## Super Eco-Factories & Offices

We will thoroughly carry out activities for the prevention of global warming and continue our efforts to promote recycling, and at the same time, to build up our bases with consideration for the environment.

## Worldwide Environmental Partnerships

We will strengthen environmental communications and actively endeavor to realize concrete partnerships with our stakeholders while clarifying our objectives and achievements.

### Environmental Vision 2015

The two key concepts of Environmental Vision 2015 are “Pioneering Sustainability” and “Emission-Neutral*1”. Our “Sustainability Compass” indicates that we must progress along four particular paths.

*1 The amount of reduction of the “direct environmental impact” from raw materials procurement to production and distribution and “social environmental impact” generated after the product is turned over to the user shall be equalized.

# Table of Contents


Company Overview・Main Products・Action Guidelines for Environmental Conservation 02
Environmental Vision 03
Message From The President 04
Environmental Management Structure 04
Special Feature Eco-Products and Their Technologies 05
FY2006 Action Plan and Achievements 10
Environmental Impact in Business Activity (FY2006) 11
Eco-Mind & Global Environmental Management 12
Next-Generation Products and Services 14
Awards Received 18
Super Eco-Factories & Offices 19
Environmental Collaboration with Stakeholders 21
Introduction to the Works 22


## Scope of Report

■ Reporting Period
FY2006 (April 1, 2006 to March 31, 2007)

■ Objective Organizations
Hitachi Appliances Group consolidated companies
The objective of tabulated data is offices and factories having a large environmental impact. (Reported separately)

■ Referenced Guidelines
Environmental Reporting Guidelines (FY2003 Version) (Ministry of the Environment, Japan)
Environmental Performance Indicators Guideline for Organizations (FY2002 Version) (Ministry of the Environment, Japan)
Environmental Reporting Guidelines 2001 With Focus on Stakeholders (Ministry of Economy, Trade and Industry, Japan)

■ Next Issue
Around July 2008

■ Website
This report is a condensed version of the contents of our website. Please see Environmental Efforts of our homepage for more information. (only in Japanese)
http://www.hitachi-ap.co.jp/company/environment/kankyo/

■ Contact Address
Hitachi Appliances, Inc.
Environment Promotion Division
Hitachi Atago Bldg., 15-12 Nishi shimbashi 2-chome, Minato-ku, Tokyo 105-8410 Japan
TEL: 03-3502-2111 FAX: 03-3506-1442

## Providing comfort to future generations in all areas of their lives

Takazumi Ishizu
President and Director

Environmentally friendly measures are being strengthened worldwide, such as restricting greenhouse gases and chemicals, and using less polluting waste disposal methods. In particular, at the 33rd G8 Summit held in Heiligendamm, Germany, in June of this year, discussing a response to climate change was a major theme and it was agreed to seriously study how to reduce in half greenhouse gas emissions globally by 2050, which is a development reflective of the times.

The times now demand that companies involved in economic activities realize their social responsibility by undertaking business development while setting high targets to address global warming and other global environmental problems and then taking responsibility in cooperation with government and private citizens to allow society as a whole to follow a path of sustainable development.

Underpinned by the comprehensive air conditioning, all-electric housing and home appliances businesses, Hitachi Appliances will develop the "Lifestyle Zone Solutions Business" on a global basic to support the envolving lifestyle of people through utilizing the companywide capabilities of Hitachi Ltd., and grasp harmonizing with the environment as part of CSR (Corporate Social Responsibility) and proceed with positive efforts.

Hitachi Appliances has become a leader in providing comfortable living environments by developing its own proprietary technology for all types of compressors, which are a fundamental component of air conditioning, refrigeration, and freezing systems, from small rotary compressors to scroll, screw, and large centrifugal types, which the Company employs to produce its top class product groups that conserve energy and are environmentally friendly.

Home appliances support our daily lives, so provide added value in these products Hitachi Appliances leverages the technology synergies made possible by the prowess of the Hitachi Group in nanotechnology and other fields to provide homes with a wide array of advanced products and to proceed with plans for all-electric housing as the culmination at these achievement.

In order to promote such business activities, we participate actively in community based social contribution and environmental conservation activities, in addition to considering the life cycle of products and reduction of the environmental impact of all business activities.

Hitachi Appliances will continue to offer environmentally friendly products and services to customers and maintain close contact with the "Lifestyle Zone" in striving to contribute to "quality of life" while at the same time fulfilling its role as a partner who assists the care for the environment of the customers themselves.

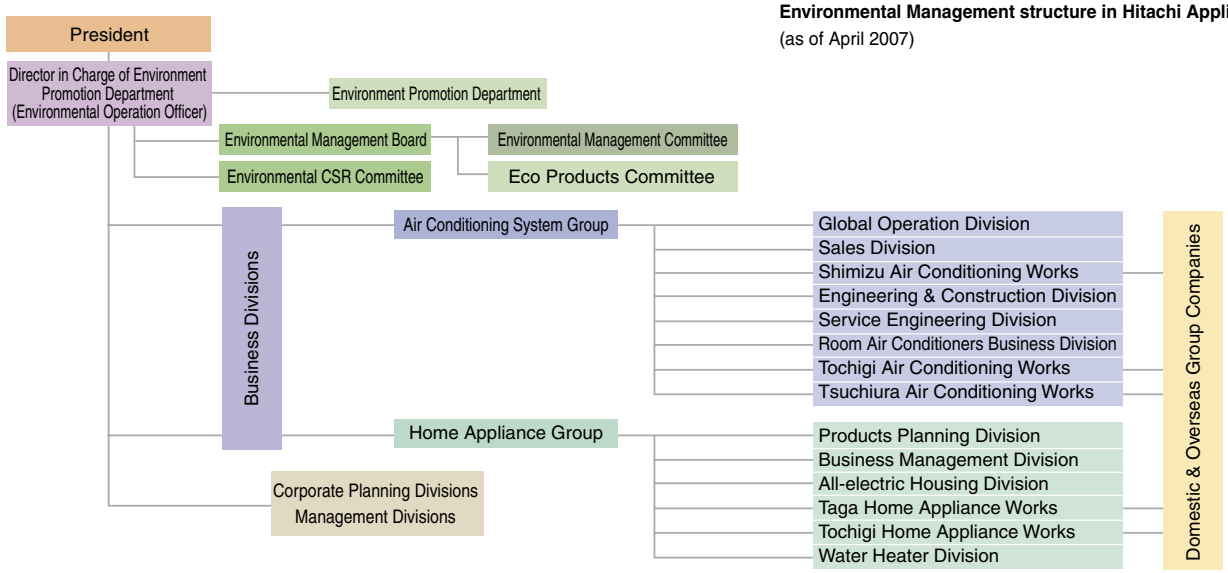
Please feel free to give us your frank opinions about our activities.



## Environmental Management Structure

**Hitachi Appliances has organized an Environmental Management Committee; headed by a chairman appointed by the President. Widespread positive environmental activities are promoted by the entire Hitachi Appliances Group, including each office and factory, based on the policies set forth by this committee.**

**Environmental Management structure in Hitachi Appliances**
(as of April 2007)



# Special Feature Eco-Products and Their Technologies

**Under the theme of contributing to becoming a sustainable, recycling society, we are actively engaged in creating products that reduce the environmental burden, such as preventing global warming, conserving energy, conserving resources, and reducing use of chemical substances.**

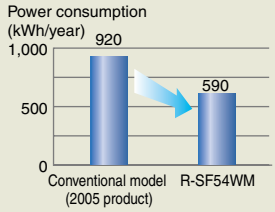
## Refrigerator "Tappuri Big Sumizumi Cool"

2006 Energy Conservation Grand Prize for Excellent Energy Conservation Equipment (Chairman Prize of ECCJ)

This space saving large capacity refrigerator features an easy-to-use, large capacity mid section freezer and thin wall construction made possible using high-performance vacuum insulation and is 685 mm wide and has a rated storage volume of 535 liters.

### Energy Conservation

The annual power consumption amount was reduced by 35% by using PAM & low-speed control and high-performance vacuum insulation Hi-VIP.




### Prevention of Global Warming

Utilizes the non-HFC (Hydrofluorocarbon) refrigerant※1 R600a (isobutane), which has a very low global warming potential.

R-SF54WM

### Uses Recycled Materials

Recycled plastic is used in the circuit board case.

### Reduced Chemicals

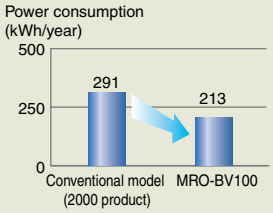
Switching to the use of substitute parts not containing chemicals made possible compliance with the RoHS Directive※2 and labeling the products with the J-Moss※3 green mark.

## Microwave Oven "Health Chef Delicious Medley"

This superheated steam microwave oven uses a combination of 5 types of heating (microwave, oven, steam, superheated steam, grill) to achieve "Delicious Medley Cooking" that improves flavor and eliminates excess oil and also features "Light Navigation" that uses light to show the user the next step to perform.

### Energy Conservation

Annual power consumption is reduced by 27% by employing wide PAM power supply, standby mode power off function, and other features.




### Promoting Long-Term Usability

Cleaning has been improved by employing a table plate and leg cover that can be removed and cleaned, an infrared black coat that resists grease adherence and that can be easily wiped clean, and a steam cleaning function.

### Reduced Chemicals

Switching to the use of substitute parts made possible compliance with the RoHS Directive and labeling the products with the J-Moss green mark.

MRO-BV100

## Vacuum Insulation Hi-VIP (Hitachi-Vacuum Insulation Panel)

Heat transfers from high temperature areas to low temperature areas by convection, conduction, and radiation. This is a vacuum insulation that places the area around the core materials in an airless vacuum suppresses heat transfer by convection and conduction to improve the thermal insulation effect. Hitachi Appliances' Hi-VIP vacuum insulation material wraps the core material in laminated film with a sealed in vacuum to provide a thermal insulation effect that has thermal insulation performance that is approximately 20 times greater than that of glass wool insulation for residence (thermal conductivity 0.0020 W/m-K). This is currently used in the Company's refrigerators, super low-temperature freezers, and other products.

### Examples of Major Uses

### Hi-VIP (Hitachi Vacuum Insulation) Cross-Section

The core material and moisture absorbent are wrapped in laminated film and sealed under a vacuum. The vacuum provides high insulation performance.


**Core Material【White Wool】**

- This is achieved in a wide operational temperature range without using adhesives.

**Moisture absorbent【Synthetic Zeolite】**

- This absorbs moisture and gases to prevent lowering of the insulation performance.
- Unlike conventional calcium oxide, it can be recycled.
- It can be formed into flat surfaces and is unaffected by the surface shape.

※1 Refrigerant…Medium which carries away heat

※2 RoHS Directive…Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (EU directive) The use of the six substances (lead, mercury, cadmium, hexavalent chromium, PBB (polybrominated biphenyl) and PBDE (polybrominated diphenyl ether)) in electrical and electronic equipment sold in the EU member states was restricted beginning July 1, 2006.

※3 J-Moss…Stands for "The marking of presence of the specific chemical substances for electrical and electronic equipment". JIS standard (JIS C 0950:2005) Specifies the method of disclosing information related to the presence of specified chemical substances. The objective chemical substances are the same as the six substances of the RoHS Directive and it is positioned as "Japanese Version RoHS".

## IH Cooking Heater “Silent Smokeless”

This is a built-in type IH cooking heater that has an “all metal supporting IH” positioned in 2 locations left and right so that it can use all metal pots and pans to cook many things at one time and that employs a clean “smokeless, waterless grill” that is wide and big.

### Energy Conservation

Annual power consumption was reduced by 16% by increasing the IH heating efficiency and using an automatic power off function. (compared with our 1999 product)

### Promoting Long-Term Usability

A nano fluorine titanium coating is used on the grill plate to improve the deodorizing effect while making it easier to wipe off grease to make it easier to clean the grill plate.

### Reduced Chemicals

Substitute parts are used to comply with the RoHS Directive.

HT-A20WS

## Washer-Dryer “Lovely Finish Big Drum”

This is the No.1※1 water conserving drum-type washer-dryer that features a “big drum” with a 60cm diameter that does a good job of washing clothes and then dries them leaving them fluffy and with fewer wrinkles and a “washer-dryer hot water pump” that makes efficient use of leftover bathwater.

※1 As of November 9, 2006 for home washer-dryers.

### Water Conservation

When the “washer-dryer hot water pump” uses leftover bathwater from washing through drying, it saves on using approximately 20 liters of tap water.

### Energy Conservation

Improving the washing and drying performance reduced the amount of electricity used from washing through drying by 40%. (compared with our 2002 product)

### Uses Recycled Materials

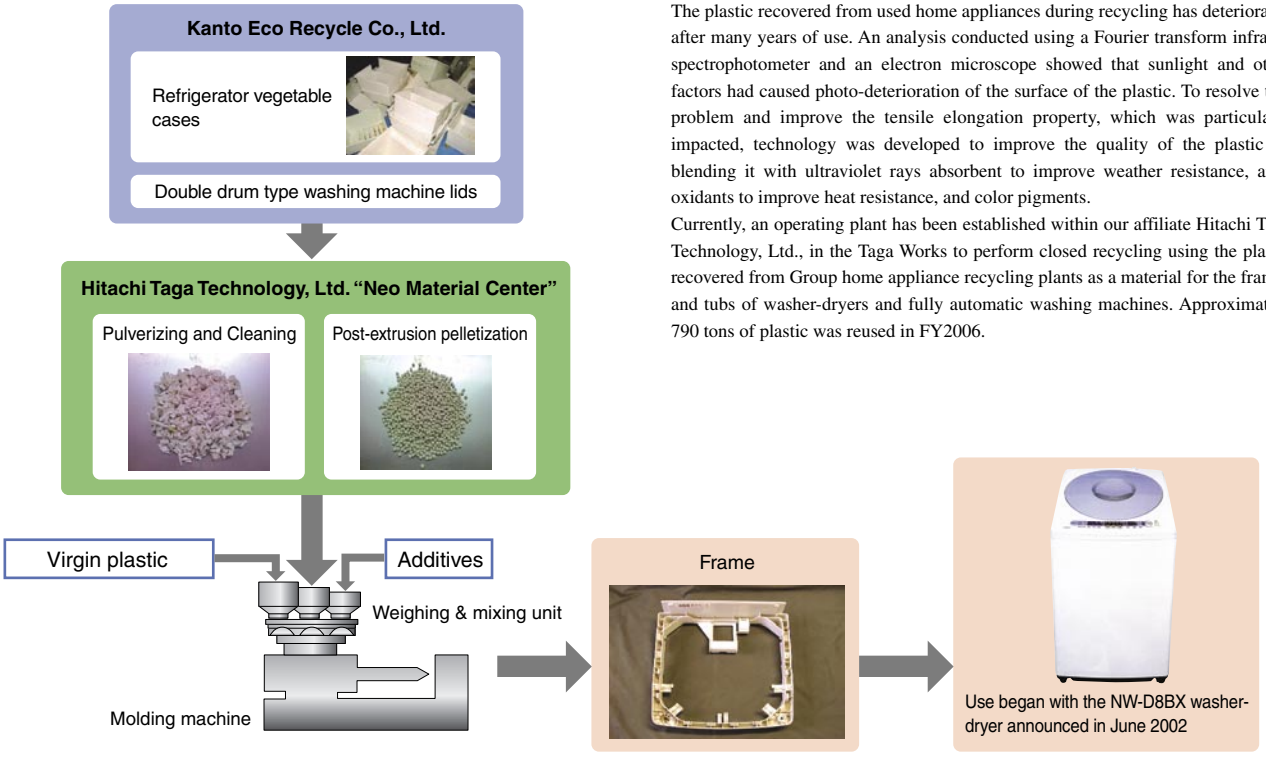
Plastic recycled from used home appliances is used in the tub and frame.

### Reduced Chemicals

Switching to the use of substitute parts made possible compliance with the RoHS Directive and labeling the products with the J-Moss green mark.

BD-V1

## Hitachi Appliances’ Plastic Recycling of Home Appliances




The plastic recovered from used home appliances during recycling has deteriorated after many years of use. An analysis conducted using a Fourier transform infrared spectrophotometer and an electron microscope showed that sunlight and other factors had caused photo-deterioration of the surface of the plastic. To resolve this problem and improve the tensile elongation property, which was particularly impacted, technology was developed to improve the quality of the plastic by blending it with ultraviolet rays absorbent to improve weather resistance, anti-oxidants to improve heat resistance, and color pigments.

Currently, an operating plant has been established within our affiliate Hitachi Taga Technology, Ltd., in the Taga Works to perform closed recycling using the plastic recovered from Group home appliance recycling plants as a material for the frames and tubs of washer-dryers and fully automatic washing machines. Approximately 790 tons of plastic was reused in FY2006.

## Vacuum Cleaners

These paper pack type vacuum cleaners achieve 99.999% dust removal by employing a Nanotech Super Premium Sanitary Filter and Plasma HEPA Engine. Electric powered "three-direction automatic shaking function" is used to remove the fine dust adhered to the paper pack to prevent clogging and thereby maintain power.

**Resource Conservation**

A compact design was used to make the body 15% lighter and conserve resources. (compared with our 2000 product)

**Reduced Chemicals**

Substitute parts are used to comply with the RoHS Directive.

CV-PK500

## Room Air Conditioner "Mist Deodorizing Stainless Steel Clean Shirokumakun"

This is an air conditioner with an automatic filter cleaning function that employs antibacterial stainless steel to provide a bacteria elimination effect and that emits mist to deodorize curtains, etc.

**Energy Conservation**

The FY2010 energy conservation standard achievement rate was met by employing an IQ-PAM engine and a double axle system.

**Promoting Long-Term Usability**

The stainless steel filter and the automatic filter cleaning function eliminate the need to clean the filter for 10 years.

**Uses Recycled Materials**

Recycled plastic is used in the indoor cabinet and other components.

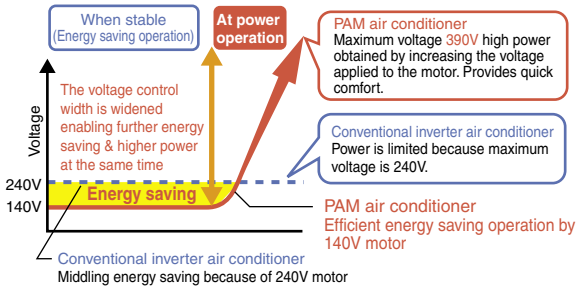
**Reduced Chemicals**

Switching to the use of substitute parts made possible compliance with the RoHS Directive and labeling the products with the J-Moss green mark.

RAS-X40W2

## PAM (Pulse Amplitude Modulation) Control

The types of control used for compressor motor control are the type that keeps the motor speed constant and the inverter control type that allows the motor speed to be freely changed. Inverter control can change the cooling/heating capacity by changing the motor speed, so it provides better power and energy conservation than the constant speed method. However, since conventional inverter control (PWM control) controls the motor speed using a constant voltage, there are limits to the power and energy savings that can be achieved. To improve on this situation, the PAM control method was developed to control the motor speed by adjusting the voltage. When power is required, the voltage is increased to provide super fast speed to increase the power. When maintaining a suitable temperature, the voltage is significantly lowered to provide ultra energy saving operation and achieve greater energy conservation and power than is possible using conventional inverter control. Hitachi Appliances introduced the world's first air conditioner employing PAM in 1997. Today, this technology is used in refrigerators, washing machines, heat pump water heaters, microwave ovens, and other products in addition to air conditioners.




**■Characteristics of the control methods**

| | Constant speed | Inverter (PWM control) | PAM control |
|---|---|---|---|
| Characteristics | The compressor motor only operates at a set speed. | The compressor motor speed is changed by varying the fixed (240V) volt continuity. | The compressor motor speed is efficiently changed by changing the voltage height in accordance with the operating conditions. |
| Power | × (medium speed) | ○ (High speed at 240V) | ◎(Higher speed by increasing the voltage to 390V) |
| Energy conservation | × (medium speed) | ○ (Low speed achieve by lower the continuity of the 240V) | ◎(Loss limiting low speed by lowering the voltage to 140V) |

## Packaged Air Conditioner for Stores "Hi Inverter IVX Energy Conservation Pro"

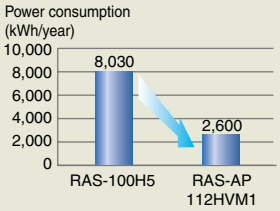
Awarded the 2006 Minister of the Environment Global Warming Preventative Action Award

Energy conservation, comfort, and installability were improved by employing independent operation of indoor units (Model 80※1 and later).

※1 Model 80…Heating capacity 8.0kW, cooling capacity 7.1kW

### Energy Conservation

Power consumption by time was reduced approximately 68% by improving air conditioning efficiency using independent operation and other measures.




### Ozone Layer Protection

R-410A, a new refrigerant that does not harm the ozone layer is used.

### Resource Conservation

Existing piping, breakers, and wiring can be used.

RAS-AP112HVM1

## Remote Condenser Type Packaged Air Conditioner for Equipment "Renewal Pro"

This remote condenser type packaged air conditioner for equipment was the first in the world to use a high efficiency inverter scroll compressor.

### Energy Conservation

Using a high efficiency inverter scroll compressor and other measures reduced the annual electricity consumption by approximately 45%.

### Resource Conservation

Using side flow and remote condensers for outdoor units reduced their weight by approximately 62%.

### Environmental Preservation

Refrigerant charging during renewal is not necessary.
(When the installed piping is 35m or shorter).

RP-AP224RHVP

## High Efficiency Air-Cooled Heat Pump Type Chiller Unit (AH) Series

Excellent energy savings have been achieved by employing a high-efficiency screw compressor and by optimizing the freezing cycle.

### Energy Conservation

A high-efficiency screw compressor and optimized freezing cycle are used to reduce the power consumption by approximately 15%.

### Ozone Layer Protection

The new refrigerant R-407C, which does not harm the ozone layer, is used. Further, the coolant charge amount was reduced by approximately 15%.

### Resource Conservation

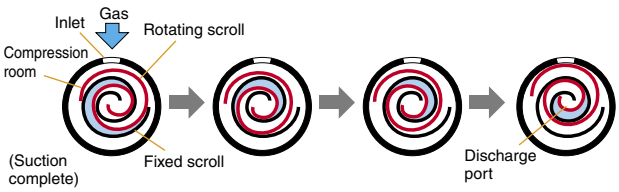
Suitable positioning of the heat exchanger reduced the size of the unit.

RHUP1800AH

## Scroll Compressor

The compressor compresses the refrigerant into high pressure and then circulates it inside the air conditioner. Increasing the efficiency of the compressor increases the cooling/heating capacity of the air conditioner and those conservers energy. Scroll type compressors, which Hitachi Appliances was the first in the world to use in a packaged air conditioner in 1983, smoothly rotate two spiral shaped vanes, a fixed scroll and a rotating scroll, to simultaneously conduct the intake→ compression→ discharge processes to achieve high efficiency, low vibration, and low noise.

### ■Scroll compressor compressing process




**1.** Refrigerant is taken in from the inlet outside of the fixed scroll.

**2.** The refrigerant enclosed within the compressor space is compressed toward the center.

**3.** It is further compressed within a decreasing crescent-shaped space.

**4.** The refrigerant that has been fully compressed in the center is discharged and the cycle starts again from step 1.

## High Efficiency Centrifugal Chiller HC-F-GX Series

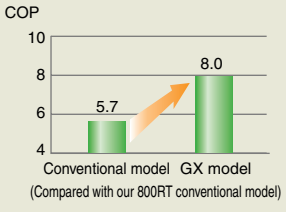
This centrifugal chiller achieves reduced gas flow loss, smaller size, and higher efficiency by using the high-pressure refrigerant R-134a. This chiller is used as the heating and cooling source for shopping centers, factories, and district heating/cooling.

### Energy Conservation

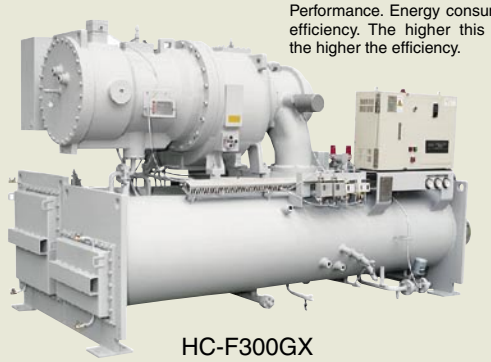
The "cooling water temperature control free mechanism" improves an annual average COP※1 by 40% and reduces annual energy consumption by 30%.

### Ozone Layer Protection

Uses the refrigerant R-134a, which does not harm the ozone layer.




※1 COP… Stands for Coefficient of Performance. Energy consumption efficiency. The higher this value, the higher the efficiency.



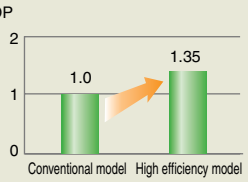
HC-F300GX

## High Efficiency Gas Absorption Chiller-Heater EX Series

A two-stage evaporation/absorption cycle and exhaust gas heat recovery unit are employed to achieve highly efficient gas absorption chiller-heaters. These are used as the heating and cooling source for shopping centers, factories, and district heating/cooling. These were selected for absorption green models※1.

### Energy Conservation

Using a two-stage evaporation/absorption cycle and exhaust gas heat recovery unit increased the cooling efficiency by 35%.




HAU-BGN150EXA

### Environmental Protection

This is non-fluorocarbon air conditioning that uses water as the coolant.

### Resource Conservation

Using a ceramic surface combustion burner and other measures allowed the high-temperature regenerator to be made 1/3 smaller. (compared with our conventional unit) (120EX-300EX)

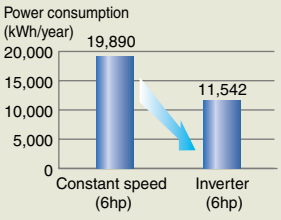
※1 In the three city gas companies (Osaka Gas Co., Ltd., Tokyo Gas Co., Ltd., Toho Gas Co., Ltd.) "Absorption type green system", this is equipment selected as a type which has a superior energy saving and material with environmental impact reduction effect and satisfies the specified standard.

## AC Inverter Scroll Chiller

A high pressure chamber type scroll compressor is used to achieve a scroll chiller that operates stably and generates little oil foaming when starting and stopping.

### Energy Conservation

The compressor speed is controlled using an inverter to increase efficiency and reduce annual power consumption by approximately 40%. (compared with our constant speed model) [6 hp]




### Reduced Chemicals

Lead-free solder is used in the electronic control circuit board.

KX-RM40AV

## Heat Pump Water Heater "Direct Pressure Eco Cute"

This is a natural refrigerant ($CO_2$) heat pump type electric water heater that employs a tap water direct pressure method that directly uses the water pressure without passing the water through a pressure reduction valve to provide a powerful hot water shower.

### Energy Conservation

A world class rated operation time of COP 4.8 was realized with a new type of heat pump unit.

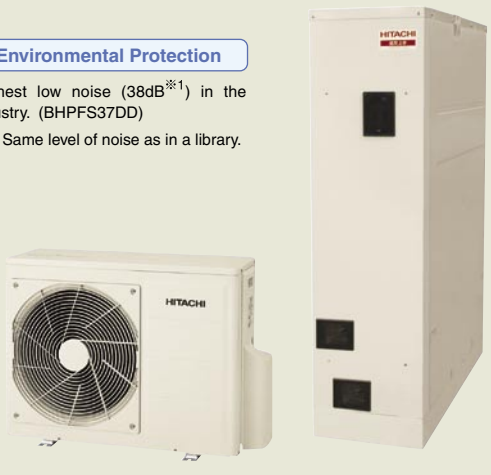
### Global Warming Prevention

The natural refrigerant $CO_2$ with a global warming potential of 1.0 is used.

### Environmental Protection

Highest low noise (38dB※1) in the industry. (BHPFS37DD)

※1 Same level of noise as in a library.




BHPFS37DD

# FY2006 Action Plan and Achievements



**The planned actions and actual results for each item of the FY2006 Action Plan are compared with the targets. Targets for FY2010 were set based on Hitachi Group's "Stage 2 Environmental Strategy".**

△: Improvement effort required ◎: Attained

| Category/ item | FY2006 Target | FY2006 Results | Achievement level | FY2010 Target |
|---|---|---|---|---|
| **Eco-Mind & Global Environmental Management** | | | | |
| Environmental Management System Structure | Enrichment of environmental management system | Hitachi Compressor Products (Guangzhou) Co., Ltd. newly acquires ISO14001 certification. | ◎ | General environmental management system certification acquired for each business group and each group company |
| Improvement of environmental activity level | "GREEN21" ver.3 768GP achieved (GP:Green Point) | 840GP achieved | ◎ | "GREEN 21" ver. 3 score 1280GP achieved |
| Environmental literacy Creation of (literacy) | Promotion of participation in internet training lectures | Promotion of education by utilization of the Internet (e-learning)<br>English version and Chinese version distributed to overseas companies. | ◎ | High eco-mind education for all employees and families<br>Enhancement of employee education and license holders<br>Lecture participation 70% |
| Promote environmental accounting | Promote internal use of environmental accounting | Environmental investment 102% (basis:FY last FY) | ◎ | Establishment of environmental accounting with external economic effect introduced |
| **Next-Generation Products & Services** | | | | |
| Expand eco-products | Expand eco-products to 80%<br>Development of super eco-products | Registration of eco-products<br>16 products, 190 models, 75%<br>Super eco-products<br>5 products, 18 models under development<br>Various awards for certified eco-products | △ | Percentage of super eco-products registration 30%, eco-products development 100%<br>Global warming prevention factor Home appliances 50%, air conditioning for commercial use 20% improvement (basis:FY2000)<br>Resource factor Home appliances 70%, air conditioning for commercial use 20% improvement (basis:FY2000)<br>Use of recycled plastic per product 20% increase (basis:FY2000)<br>Use of packaging per product 10% reduction (basis:FY2000) |
| Promote control of chemical substances used in products | Construction of solids management system suitable to RoHS Directive※1 six objective substances content. | Promotion of environmental CSR compliant "MONOZUKURI".<br>System construction complete | ◎ | Establishment of REACH※2 compliance data management system. |
| Promote green procurement | Percentage of Green Suppliers 100% | Percentage of Green Suppliers 100% | ◎ | Maintenance and improvement of Green Supplier level |
| Construct a sustainable business model | Planned promotion of business model, etc. which improves the environmental impact to the next generation. | Progress in leasing of refrigerating air conditioner for commercial use | ◎ | Study aimed at expansion of environmental solution model business and dissemination to society |
| **Super Eco-Factories & Offices** | | | | |
| Reduction of amount of $CO_2$ emission of origins of energy | 【Domestic】$CO_2$ basic unit 21% reduction (basis:FY1990)<br>【Domestic】$CO_2$ emission 7% reduction (basis:FY1990) | 【Domestic】Real output $CO_2$ basic unit 21% reduction (basis:FY1990)<br>【Domestic】$CO_2$ emission 50% reduction (basis:FY1990) | ◎ | 【Domestic】Output $CO_2$ basic unit 25% reduction (basis:FY1990)<br>【Domestic】$CO_2$ emission 7% reduction (basis:FY1990) |
| Energy reduction during transport | Grasping of energy consumption and formulation of an energy-saving plan related to transportation (products, waste) | Grasping of record of achievements and drafting of energy-saving plan | ◎ | 【Domestic】Transportation energy basic unit 4% reduction (basis:FY2006) |
| Effective use of resources | 12% reduction of waste generated (basis:FY2000)<br>【Domestic】Improvement of resource recycling rate 2% (basis:FY2005) | 【Domestic】24% reduction of waste generated (basis:FY2000)<br>【Domestic】Resource recycling rate -11% (basis:FY2005) | △ | 20% reduction of waste generated (basis:FY2000)<br>【Domestic】Resource recycling use 10% improvement (basis:FY2000) |
| Purchase of environmentally friendly office supplies | Improvement of green purchasing rate (basis:FY2006) | 【Domestic】Green purchasing rate 76% | — | Green purchasing rate 50% improvement (basis:FY2006) |
| Thorough chemical substances management and reduction of amount of emission | 【Domestic】VOC※3 atmospheric emissions 41% reduction (basis:FY2000) | 【Domestic】VOC atmospheric emissions 68% reduction (basis:FY2000) | ◎ | 【Domestic】VOC atmospheric emissions 45% reduction (basis:FY2000) |
| **Worldwide Environmental Partnerships** | | | | |
| Data disclosure & dialog | Completion of advertising and websites | ● Exhibition participation<br>International eco-products fairs 2006<br>Eco-Products 2006 and ENEX2007<br>● Website<br>Expansion of appeal of "Keeping on Hitachi"<br>Implementation of "Hitachi Eco Campaign" | ◎ | Enhancement of dissemination of information on website<br>Participation in exhibitions, seminars, and other outside activities |
| Global citizen activities | Exchange with local communities at each office and factory | Participation in team minus 6% activity<br>Participation in "Eco-Family Project"<br>Interaction with local citizens by business office "open-house" event<br>Cleaning activity at each business office | ◎ | Greening & cleaning activity<br>Social action program for the environment |

※1 Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (EU directive) The use of the six substances (lead, mercury, cadmium, hexavalent chromium, PBB (polybrominated biphenyl) and PBDE (polybrominated diphenyl ether)) in electrical and electronic equipment sold in the EU member states was restricted beginning July 1, 2006.

※2 REACH regulation…Registration, Evaluation, Authorisation and Restriction of Chemicals (EU regulation) Requires companies which manufacture specified chemical substances or manufacturers and marketers who export products containing the chemical substances to the EU to register and report chemical substances. Entered into force on June 1, 2007.

※3 VOC…Volatile Organic Compounds

# Environmental Impact in Business Activity (FY2006)

**This gives the FY2006 data for the amount of resources inputs and the environmental load generated by the business activities of Hitachi Appliances.**

## Domestic Business Activity

| INPUT | | |
|---|---|---|
| Total energy consumption (crude oil equivalent) | | 35,277 kL |
| | Electricity | 115,846 MWh |
| | Gasoline | 217 kL |
| | Diesel oil | 19 kL |
| | Kerosene | 1,091 kL |
| | LPG | 229 t |
| | City gas | 1,874 thousand $m^3$ |

| OUTPUT | |
|---|---|
| $CO_2$ emission | 50,048 t |

| INPUT | | | |
|---|---|---|---|
| Total input of materials | | | |
| Metals | 67,779 t | Iron (including sheet steel) | 51,536 t |
| | | Stainless steel | 3,499 t |
| | | Aluminum | 6,162 t |
| | | Copper | 6,162 t |
| | | Other nonferrous metals | 420 t |
| Plastics | 59,588 t | Thermoplastics | 27,245 t |
| | | Thermohardened plastics | 32,343 t |
| Other materials | | | 2,200 t |
| Chemical substances | | Chemical substances handled under the PRTR Law | 173 t |
| | | Ozone-depleting substances handled | 28 t |

| OUTPUT | |
|---|---|
| Volume of chemical substances released or transferred | |
| Release or transfer volume for chemical substances under the PRTR law | 44 t |
| Volume of release for ozone-depleting substances | 0.36 t |

| OUTPUT | | | |
|---|---|---|---|
| Total volume of waste generated | | 23,764 t | |
| Waste generated | | 23,764 t | |
| Waste reduction | | 754 t | |
| Recycled (rate) 22,990 t (99.9%) | Volume re-used | 1 t | (0%) |
| | Volume of material recycled | 21,660 t | (94%) |
| | Volume of thermal recycled | 1,329 t | (6%) |
| Final disposal (rate) | | 20 t | (0.1%) |

| INPUT | | |
|---|---|---|
| Water consumption | | 2,987,366 $m^3$ |
| | Service water | 179,710 $m^3$ |
| | Industrial water | 1,265,643 $m^3$ |
| | Ground water | 1,523,763 $m^3$ |

| OUTPUT | | |
|---|---|---|
| Total volume of wastewater | | 2,826,552 $m^3$ |
| | Public waters | 2,139,491 $m^3$ |
| | Sewerage system | 554,566 $m^3$ |
| | Evaporation, others | 132,495 $m^3$ |

## Overseas Business Activity

| INPUT | | |
|---|---|---|
| Total energy consumption (crude oil equivalent) | | 33,162 kL |
| | Electricity | 97,786 MWh |
| | Gasoline | 65 kL |
| | Naphtha | 43 kL |
| | Heavy oil | 1,009 kL |
| | Kerosene | 480 kL |
| | LPG | 3,806 t |
| | LNG | 974 thousand $m^3$ |

| OUTPUT | |
|---|---|
| $CO_2$ emission | 116,163 t |

| INPUT | | |
|---|---|---|
| Total input of chemical substances | | |
| Chemical substances | Chemical substances handled under the PRTR Law | 29 t |

| OUTPUT | |
|---|---|
| Volume of chemical substances released or transferred | |
| Release or transfer volume for chemical substances under the PRTR law | 8 t |

| OUTPUT | |
|---|---|
| Total volume of waste generated | 11,439 t |
| Waste generated | 11,439 t |
| Waste reduction | 98 t |
| Recycled (rate) | 9,611 t (84.7%) |
| Final disposal (rate) | 1,729 t (15%) |

| INPUT | | |
|---|---|---|
| Water consumption | | 1,433,566 $m^3$ |
| | Service water | 200,746 $m^3$ |
| | Industrial water | 740,419 $m^3$ |
| | Ground water | 492,401 $m^3$ |

| OUTPUT | | |
|---|---|---|
| Total volume of wastewater | | 1,211,373 $m^3$ |
| | Public waters | 487,813 $m^3$ |
| | Sewerage system | 665,100 $m^3$ |
| | Evaporation, others | 58,460 $m^3$ |

**If environmental activities are to achieve a firm objective, it is essential to establish more specific and effective targets. By setting up an eco-management system allowing individual workers to recognize the environment in their individual positions, workers can be motivated to more positive, smoother actions, paving the way for substantial achievements.**

## Environmental Management System

We have organized an environmental management system based on ISO 14001 as one of our environmental activities which reduce the environmental impact and contribute to environment conservation.
Factories and other facilities have received ISO 14001 certification.
In FY2006, Hitachi Compressor Products (Guangzhou) Co, Ltd., newly obtained ISO 14001.

### Status of ISO 14001 Certification

| | Domestic | | Overseas | | Total |
|---|---|---|---|---|---|
| | Production Total Sites | Non-Production Sites | Production Total Sites | Non-Production Sites | |
| No. of certified sites | 7 | 1 | 11 | 0 | 19 |

### Number of internal environmental audits

| | Domestic | Overseas |
|---|---|---|
| Numberrequired | 50 | 114 |
| Numberheld | 140 | 226 |

## GREEN 21 Activities

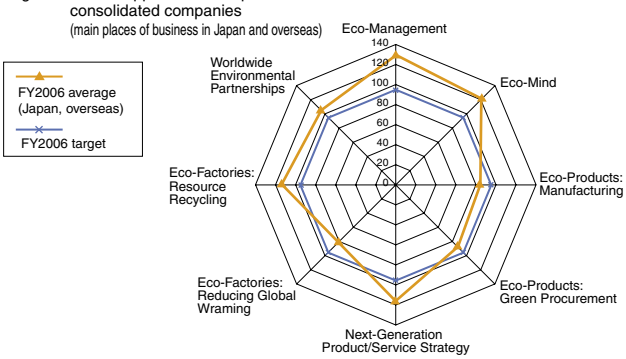
The “GREEN 21” Ver.2 system was used from FY2001 to FY2005 as a fixed standard to evaluate and develop environmental activities. “GREEN 21” Ver.3 developed from Ver.2 has been implemented since FY2006 to raise the level of activities.
“GREEN 21” Ver.3 uses 56 items in 8 categories, such as eco management and eco mind, to evaluate activity levels. Activity status is evaluated on a scale of 0 to 5, with Level 4 being target level set for FY2010 in the Hitachi Group Environmental Activities Plan. The evaluation for FY2006 was scored as 840GPs, which exceeds the 768GPs annual target total for all categories (GP = Green Points).

### Evaluation items (8 categories/56 performance indicators)

| Category (evaluation table) | Main contents of evaluation |
|---|---|
| Eco-Management | Action plan, Environmental accounting, Risk management |
| Eco-Mind | Employees training and educaton |
| Eco-Products: Manufacturing | Eco design management system, Eco products, Control of hazardous substances contained in products |
| Eco-Products: Green Procurement | Green procurement, Green purchases |
| Next-Generation Product/Service Strategy | Business and product strategy, Sustainable business, Publicity |
| Eco-Factories: Reducing Global Wraming | Energy saving at production factories, Environmentally responsible distribution |
| Eco-Factories: Resource Recycling | Waste reduction, Chemical substance management |
| Worldwide Environmental Partnerships | Information disclosure, Communication activities, Global citizen activities |

**Green Point Average: Results and Targets**

Targeted: Hitachi Appliances Group consolidated companies (main places of business in Japan and overseas)




## Eco-mind & Environmental Education

The awareness and practice of the environment of every employee is important in order to promote environmental conservation. Also important for continuous improvement are repeated training and exercises. In addition to training at each level, special articles with the environment as their theme are published in the public relations magazine issued by the factory during the environment month of June of each year so that awareness of each employee and home will be raised, as part of our environmental management program. Furthermore, we register employees who are engaged in work that may influence the environment as “Environment-Related Workers”, and provide them with the necessary education as well as periodical exercises simulating emergency cases.
Training related to how general environmental conservation activity of the Hitachi Group is undertaken is also conducted overseas.

Overseas environmental education (Guangzhou, China)

Overseas environmental education (Brazil)

## e-Learning (Environmental Education System)

Hitachi Appliances has an e-learning environmental education system, as a tool of environmental education, accessible by individual employees during their free time on the internet. An English version and a Chinese version of e-learning are available and are utilized in our overseas factories.

## Environmental Accounting

As a key element of our management system, we introduced an environmental accounting system in FY2001. We disclose the cost of environment preservation activities, and the economic and physical effect in the form of environmental management information. We aim to let others gain an understanding of our perspective toward the environment.

While costs up to depreciation allowance are included, the effect is evaluated from the standpoints of "economic effect" by amount and "physical effect" by environmental impact reduction amount. The economic effect is evaluated by calculating numbers having a clear basis. The physical effect is evaluated by combining the environmental impact suppression effects not only during production, but also during use. In 2006, expenses were ¥2301.2 million. This was a 1.4% increase over that of the previous year. Approximately 50% of these expenses were "research and development cost" for research & development and design to reduce the environmental impact of products. In addition, the economic effect of energy-saving and resource-saving was ¥457.6 million, or a 47% increase over that of the previous year, and the "amount of energy consumed during product use" could be reduced by 18,272MWh as a physical effect.

■Hitachi Appliance environmental accounting standard

**Cost related to environmental conservation activities**

Expenses and investment accompanying business activity for the purpose of environmental conservation and environmental impact reduction

**Environmental conservation effect**

●Economic effects

◆Real income from sale of valuable resources, environmental technology patent income, etc.

◆Reduction of electric charges and waste disposal costs accompanying environmental impact reduction activities

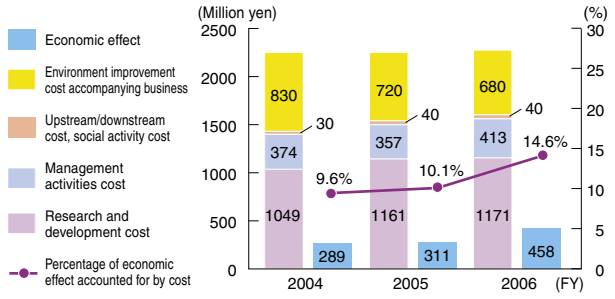
●Physical effects

◆Reduction by activities to reduce resources put into business activities

◆Reduction by activities to reduce the environmental impact and wastes emitted from business activities

◆Reduction by activities to reduce the environmental impact at use and disposal of products

**■Change in cost and effect**




### Costs

| | Item | Main contents | Cost (units: Million yen) FY2004 | FY2005 | FY2006 |
|---|---|---|---|---|---|
| Cost | Business area cost | Environmental impact reduction facilities maintenance/management cost, depreciation cost | 819.3 | 710.0 | 677.7 |
| | Upstream/downstream cost | Green procurement cost, product& packaging recovery/recycling cost, recycling cost | 30.8 | 34.9 | 36.7 |
| | Administration cost | Environmental management labor cost, environmental management system operation/maintenance | 373.6 | 357.0 | 413.3 |
| | Research and development cost | Product/manufacturing process environmental impact reduction research &development and product design cost | 1,048.9 | 1,161.3 | 1,171.0 |
| | Social activity cost | Greening/beautification and other environmental improvement, PR/publicity cost | 0.3 | 0.4 | 0.4 |
| | Environmental remediation cost | Environment related measures and contribution charges | 6.7 | 5.2 | 2.1 |
| Total cost | | | 2,279.6 | 2,268.8 | 2,301.2 |
| Total environmental investment | | Facilities investment depreciation cost is calculated on 5 years straight-line method. | 728.5 | 820.9 | 844.0 |

Facilities investment depreciation cost is calculated on 5 years straight-line method.

### Effects

| | Item | Main contents | Effect amount (Units: Million yen) FY2004 | FY2005 | FY2006 |
|---|---|---|---|---|---|
| Economic effects | Real income effect | Waste recycling sales profit | 269.9 | 291.7 | 438.5 |
| | Cost reduction effect | Resources cost reduction by resource conservation, treatment cost reduction by waste reduction, and electric power cost reduction by energy conservation | 19.1 | 19.3 | 19.1 |
| | Total | | 289.0 | 311.0 | 457.6 |

| | Item | Main contents | Reduction amount (rel. to last FY) FY2004 | FY2005 | FY2006 |
|---|---|---|---|---|---|
| Physical effects | Reduction of amount of energy consumed during manufacture | Reduction of amount of energy consumed by resource conservation, reduction of amount of energy consumed by introduction of energy conservation facilities | 612MWh | 1,967MWh | 341MWh |
| | Reduction of final waste disposal amount during manufacture | Reduction of final disposal amount by separation and recycling | 54t | 153t | 16t |
| | Reduction of amount of energy consumed during product use | Reduction of amount of energy consumed when Hitachi Appliances product used by consumer | 126,673MWh | 57,381MWh | 39,109MWh |

The effect accompanying facility investment is 5 years calculation, the same as cost.

※The above cost and effect for FY2004 are the total for the former Hitachi Air Conditioning Systems Co., Ltd., former Hitachi Home & Life Solutions Inc., and the former Hitachi Hometec, Ltd.
The above cost and effect for FY2005 are the total for the former Hitachi Air Conditioning Systems Co., Ltd., and former Hitachi Home & Life Solutions Inc.

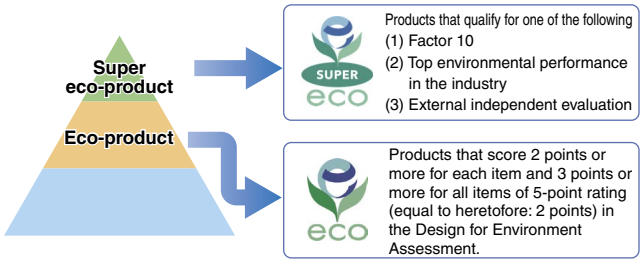
**To reduce the environmental load at each stage of the product lifecycle, Hitachi Appliances is actively switching to new refrigerants that have an ozone depletion potential of zero, reducing chemical substances, conserving resources, conserving energy, and taking other measures.**

## Development of Eco-Products

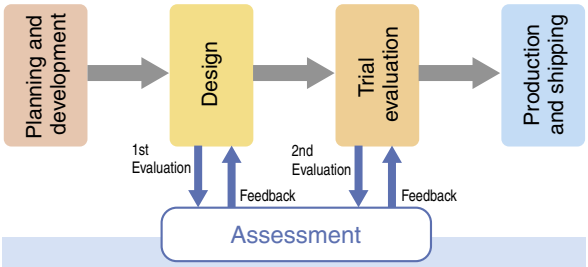
The Design for Environment Assessment is being conducted based on the Design for Environment (DfE) concept that targets reducing the environmental load at each stage of the product lifecycle from materials procurement to disposal and recycling. Improvements to existing models for a total of 8 categories including resource reduction and long-term usability, and products that meet this standard are designated as "Eco-products". In FY2006, 16 products comprising 190 models were designed as "Eco-products", which accounts for 75% of the total number of registered products. In addition, of the "Eco-products", those with a factor※1 of 10 or more or that have the top environmental performance in the industry, are designated as "Super eco-products". In FY2006, 5 products comprising 18 models were designed as "Super eco-products". The products were a packaged air conditioner, heat pump water heater, refrigerator, washer-dryer, and vacuum cleaner.

※1 See Environmental Efficiency on page 15.

### ■Eco-product Definition




### ■Design for Environment Assessment

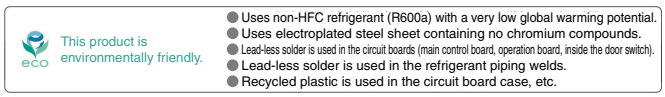



| Assessment Items | Assessment Points |
|---|---|
| Resource reduction | Small size and reduced weight, resource conservation, standardization |
| Long-term usability | Repairs, ease of maintenance, durability, reliability |
| Use of recycled materials | Use of recycled materials, promotion of resource reuse |
| Ease of disassembly and processing | Disassemble ability, separation processing situation |
| Environmental protectiveness | Environmental load reduction |
| Energy conservation | Energy conservation during use |
| Information provision | Provision of information during processing and disposal |
| Packaging materials | Reduction of packaging materials, ease of processing |

## Environmental Information Labeling using the "eco" mark

Hitachi Appliances uses the "eco" mark for easy-to-understand communication of environmental information relating to eco-products, and the environmentally friendly points of products are stated publicly in catalogs, homepages, and other materials. Giving detailed environmentally friendly point information, such as "Uses non-HFC (Hydrofluorocarbon) refrigerant with a very low global warming potential" or "Recycled plastic is used in the circuit board case, etc." shows customers what environmentally friendly measures have been take for which parts.

### ■Example uses of the "eco" mark in catalogs




## Activities to Protect the Ozone Layer and Prevent Global Warming

The refrigerant used in air conditioning products has been switched from HCFC (hydrochlorofluorocarbons refrigerants, which destroy the ozone layer, to HFC (hydrofluorocarbons) refrigerants, which have an ozone depletion potential of zero. In China, India, and other areas where HFC refrigerant supply systems have not been established as social capital, we will switch to using the new refrigerants there as soon as local conditions permit.

In refrigerators, the Company has switched to using the non-HFC refrigerant R-600a (isobutane), which has a global warming potential of 3.0, and use of isobutane has been completed for all units produced domestically. In addition, the Company has switched to using the natural refrigerant $CO_2$, which has a global warming potential of 1.0, in heat pump water heaters and is broadening this lineup.

## Energy Conservation Activities

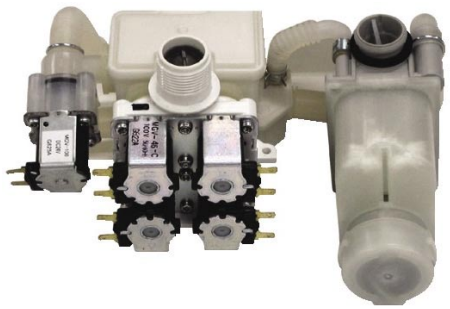
In view that the majority of the environmental burden in a product lifecycle comes from the energy consumed during the use of the product, product energy conservation is an important product development theme. Hitachi Appliances is actively working to reduce the electricity consumed by products while they are operating and in standby. These activities include the development of many energy saving technologies, such as "PAM control", "vacuum insulation", and "high efficiency scroll compressors" used in refrigerators and air conditioners to achieve energy conservation performance that is at the top level of the industry. A top runner standard was newly established last year, and this standard calls for product energy conservation, so Hitachi Appliances is making plans to meet this standard.

## Water Conservation Activities

Recognizing that energy is consumed to produce the tap water we use in our homes, Hitachi Appliances is working to conserve water while washing clothes.
Water saving during the laundry was promoted by the development of a washing machine with built-in ”bathwater pump” which uses residual bath water in washing and step less water level and other water saving functions and the placing on sale in 2004 of the Beat Wash water-saving type washer-dryer that uses our unique beat washing and high density detergent recycling system.
Up to now, bathwater pumps could only be used for washing clothes, but during the current fiscal year, the Company modified the bathwater pump to create a “dryer bathwater pump” that can also be used during clothes drying to conserve the tap water used for humidity removal during drying. This greatly reduces the amount of tap water used during drying. The drum type washer-dryer (BD-V1) that has this function can use leftover bathwater from washing through drying to reduce the amount of tap water used to about 20 liters, which is a reduction of approximately 90% over the Company’s Model WD74B made in 2002.

### Hot Water Cycle Engine with a [Washer-Dryer Bathwater Pump]

A water supply mechanism that switches between the washing tub and the drying duct was newly developed to allow bathwater to also be used for drying. A variable speed inverter motor is also used to optimally adjust the flow volume during washing and drying to effectively use limited leftover bathwater.



## Environmental Efficiency

Hitachi Appliances has introduced the use of “Environmental Efficiency” as an index for showing how much “product performance” can be attained with how little “environmental impact.” The Company is focusing on preventing global warming and effective use of resources as a way to limit environmental impact by calculating the “prevention of global warming efficiency” and “resource efficiency” using amount of greenhouse gases emitted and the amount of resources used and disposed of during the product lifecycle as denominators. Factors were introduced to show the increase from standard fiscal year products for use in product evaluation.

### Definition of Environmental Efficiency

● Prevention of global warming efficiency =

$$\frac{\text{Product life span}^{※1} \times \text{Product function}}{\text{Volume of greenhouse gas emission through the life cycle of the product}}$$

● Resource efficiency =

$$\frac{\text{Product life span} \times \text{Product function}}{\Sigma\ \{\text{Each resource value coefficient} \times (\text{Volume of resources}^{※2}\ \text{used throughout the product's life cycle} + \text{amount of resources to be disposed of}^{※3})\}}$$

### Definition of factors

● Prevention of global warming factor =

$$\frac{\text{Prevention of global warming efficiency for product being evaluated}}{\text{Prevention of global warming efficiency for reference product}}$$

● Resources factor =

$$\frac{\text{Resource efficiency for product being evaluated}}{\text{Resource efficiency for reference product}}$$

※1 Set used time (years)
※2 Amount of resources used - Amount of reused/recycled resources
※3 Amount of resources used - Amount of reusable/recyclable resources

**■Environmental Efficiency Calculation Results (Factor X)**
【Product name: Washer-Dryer】
Drum type washer-dryers that employ a “washer-dryer bathwater pump” and a “60cm diameter drum”.

**■Development concept**
Left over bathwater is also used during drying by drum type washer-dryers to reduce the amount of tap water that is used.

Base product
Model NW-D8AX
made in 2001

Evaluated product
Model BD-V1
made in
2006

| | |
|---|---|
| Prevention of global warming factor | 5.9 |
| Resources factor | 3.9 |

## RoHS Directive※1 and J-Moss※2 Compliance

To comply with the EU RoHS directive, replacement of the six chemical substances lead, mercury, cadmium, hexavalent chromium, PBB (polybrominated biphenyl) and PBDE (polybrominated diphenyl ether) was undertaken. The presence of these six chemical substances in all the parts used in our products was investigated and replacement of parts found to contain these substances with parts which do not use them was advanced with the cooperation of the technological development department of the Hitachi Group and suppliers. As a result, products for Europe comply with the RoHS directive and similar measures are also being gradually implemented for products not covered by the restrictions. In Japan, the Company is also complying with J-Moss, which requires that information be provided on products that contain these 6 chemical substances. Products that do not contain these 6 chemical substances are labeled with a "Green Mark" and the mark is also shown on the instruction manuals of these products, and related information is provided through the Company's website.

※1 Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (EU directive) The use of the six substances (lead, mercury, cadmium, hexavalent chromium, PBB (polybrominated biphenyl) and PBDE (polybrominated diphenyl ether)) in electrical and electronic equipment sold in the EU member states was restricted beginning July 1, 2006.

※2 J-Moss…Stands for "The marking of presence of the specific chemical substances for electrical and electronic equipment". JIS standard (JIS C 0950:2005) specifies the method of disclosing information related to the presence of specified chemical substances. The objective chemical substances are the same as the six substances of the RoHS Directive and it is positioned as "Japanese Version RoHS".

## Management of Products Containing Chemical Substances

Hitachi Appliances has formulated "Environmental CSR Compliant Monozukuri Standards" and operating a chemical management system.

A survey is conducted of procured materials using in manufacturing from the parts used in the products to the local materials used onsite that might be contained in the products to determine if they contain any of the 13 prohibited substances※3 or 12 controlled substances※4, and if they do, the amounts contained. The survey data is managed centrally in an onsite database and shared.

In addition, the chemical substance management system of suppliers is examined using the Supplier Examination Guidelines prepared by Hitachi Appliances based on the Guidelines for Management of Chemical Substances and Products issued by the Japan Green Procurement Survey Standardization Initiative (JGPSSI). Hitachi Appliances is promoting the creation of a management system covering the entire supply chain by requiring that suppliers with problems in their management system make improvements.

※3 Prohibited 13 substances

①Cadmium ②Hexavalent chromium ③Lead ④Mercury ⑤TBTO ⑥PBB ⑦PBDE ⑧PCB ⑨Polychlorinated naphthalene ⑩Short chain chlorinated paraffin ⑪Asbestos ⑫Azine dyestuffs & pigments ⑬Ozone layer depletion substances (Class I substances)

※4 Controlled 12 substances

①Antimony ②Arsenic ③Beryllium ④Bismuth ⑤Nickel ⑥Selenium ⑦Bromine flame retardant ⑧PVC ⑨Phthalic acid ester ⑩TBT & TPT ⑪Ozone layer depletion substances (Class II substances) ⑫Radioactive substances

## Green Procurement

The Hitachi Appliances Group promotes green procurement by procuring parts and materials that have a reduced environmental load from suppliers that are actively taking action to protect the environment. To build a green procurement system at Taiwan-Hitachi, suppliers were called on to establish the "Taiwan Hitachi Ltd. Central Satellite Clean Industrial System" in May 2006, and this organization as actively undertaken activities while receiving training and guidance from the administrative office and the Foundation of Taiwan Industrial Service.

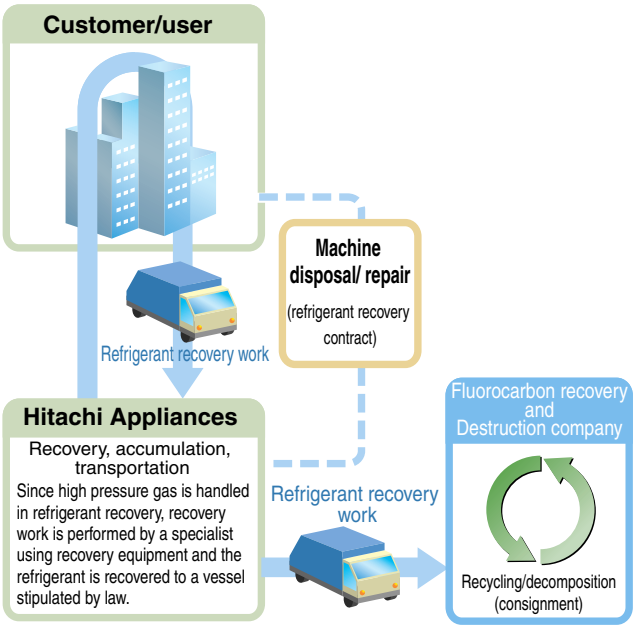
Kick-off meeting for Taiwan Hitachi Ltd. Central Satellite Clean Industrial System

Guest speaker from Foundation of Taiwan Industrial Service

## Recovery and Suitable Disposal of Commercial Air Conditioner Refrigerant

To prevent the release into the air of refrigerants used in industrial air conditioners, Hitachi Appliances recovers the refrigerant when the air conditioner cooling cycle is repaired or equipment is disposed of.

The recovered refrigerant is properly disposed of by Fluorocarbon recycling and destruction companies nationwide based on the Fluorocarbon Recovery and Destruction Law.



## Recycling of Home Appliances

The Home Appliance Recycling Law (Law for Recycling of Specified Kinds of Home Appliances) was enacted in April 2001, but two years prior to this in May 1999 Hitachi Appliances established the Kanto Eco Recycling Co., Ltd., home appliance recycling plant within the Tochigi Works to recycle used home appliances, and recycling of room air conditioners, refrigerators, washing machines, and CRT televisions was begun in April 2001. This is the only recycling plant in the country that is integrated with a manufacturing plant, and the information obtained from this plant is used as feedback for product design and to improve the product recycling rate.

Further, Hitachi Appliances has formed an alliance with 5 other home appliance manufacturers※5 to build efficient recycling systems that allows the companies to use mutually the latest environmentally friendly facilities to recycle home appliances. In FY2006, we recycled 50,734 tons of our home appliance products of the specified three kinds in total excluding CRT televisions, and the product recycling rate was 78%. This is equivalent to about 280 jumbo jets※6.

※5 Sanyo Electric Co., Ltd., Sharp Corporation, Sony Corporation, Fujitsu General Limited, Mitsubishi Electric Corporation

※6 Calculated from Boeing 747-400/gross weight 180 tons

### FY2006 recycling results for 3 used home appliance products

| Item | Air conditioners | Refrigerators & freezers | Washing machines |
|---|---|---|---|
| Number of units collected at specified collection site (units) | 205,743 | 384,560 | 648,198 |
| Number of units recycled (units) | 206,216 | 384,156 | 647,895 |
| Processing weight of recycled units (t) | 8,552 | 21,746 | 20,436 |
| Weight of recycled material (t) | 7,508 | 15,815 | 16,351 |
| Recycling rate (%) | 87 | 72 | 80 |

※Numbers with decimals are rounded down.

### Breakdown of recycled products (by recycled weight)

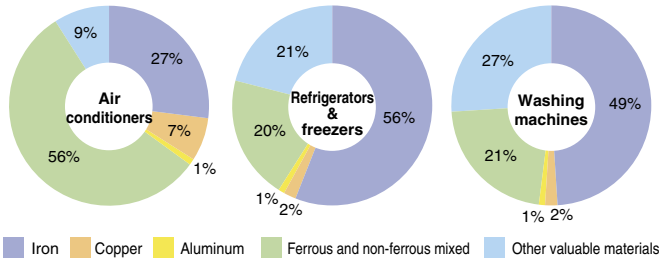
(Total weight of parts and materials used as product parts or materials whether received for a price or free of charge)

| Item | Air conditioners | Refrigerators & freezers | Washing machines |
|---|---|---|---|
| Iron (t) | 2,000 | 8,857 | 7,984 |
| Copper (t) | 527 | 261 | 259 |
| Aluminum (t) | 37 | 51 | 82 |
| Ferrous and non-ferrous mixed (t) | 4,208 | 3,234 | 3,567 |
| Other valuable materials (t) | 734 | 3,409 | 4,457 |
| Total weight (t) | 7,508 | 15,815 | 16,351 |

※Numbers with decimals are rounded down.

※"Other valuable materials" is plastic, etc.

### Recycled weight composition for the 3 home appliance products




### Weights of collected, shipped, and destroyed refrigerant fluorocarbons

| Item | Air conditioners | Refrigerators & freezers |
|---|---|---|
| Weight of collected refrigerant fluorocarbons (kg) | 117,506 | 41,865 |
| Weight of refrigerant fluorocarbons shipped to consigned destroying facilities (kg) | 117,478 | 41,821 |
| Weight of destroyed refrigerant fluorocarbons (kg) | 118,017 | 41,664 |

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

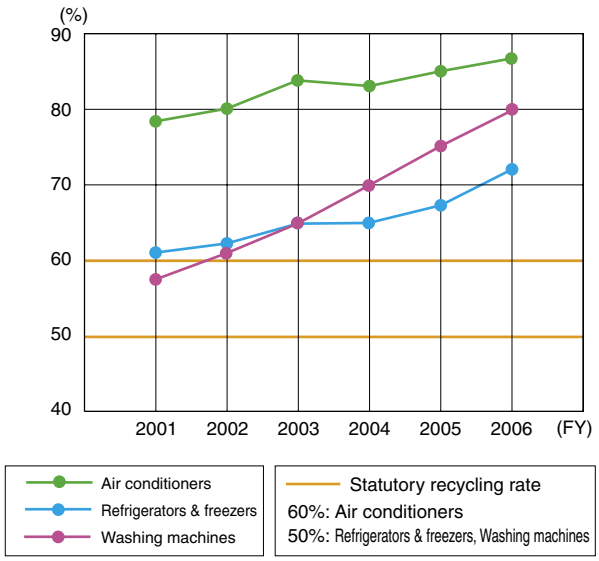
| Item | Refrigerators & freezers |
|---|---|
| Weight of fluorocarbons liquefied and collected from heat insulator (kg) | 81,043 |
| Weight of fluorocarbons liquefied and collected from heat insulator then shipped to consigned destroying companies (kg) | 81,231 |
| Weight of fluorocarbons liquefied and collected from heat insulator, then destroyed (kg) | 80,764 |

※The difference between the recovered weight and shipped weight is inventory.

※Shipped weight and destroyed weight includes part of the FY2005 portion.

※The difference between the shipped weight and the destroyed weight depends on the destruction report time lag.

### Changes in the recycling rate of the 3 home appliance products



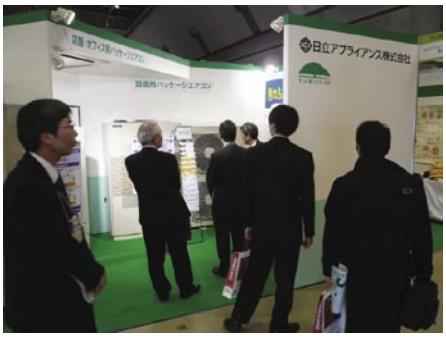
## Participation in Exhibitions

In FY2006, Hitachi Appliances, as the Hitachi Group company, participated in the following exhibitions and introduced its commitment to the environment.

| Month and year | Name of exhibition | Location |
|---|---|---|
| October 2006 | Eco Products International Fair 2006 | Singapore Suntec Exhibition Center |
| December 2006 | Eco Products 2006 | Tokyo Big Sight |
| February 2007 | ENEX2007 (Energy & Environment Exhibition 2007) | Tokyo Big Sight |

Eco Products International Fair 2006

Eco Products 2006



ENEX2007



## Awards Received

**The energy saving performance and environmentally friendly designs of Hitachi Appliances' products have been highly praised.**

**Product Awards**

| Award name | Award-winning product | Month and year of award | Prize winner |
|---|---|---|---|
| **【Energy Conservation Grand Prize for Excellent Energy Conservation Equipment】** | Sponsor: Ministry of Economy, Organizer: The Energy Conservation Center, Japan Trade and Industry (Honors equipment and systems for living (including parts and materials) with excellent energy saving performance) | | |
| Minister Prize of Economic, Trade and Industry | Commercial package-type air conditioners inverter (Hi Inverter IVX 4-way cassette heater-less system) (※ Production completed products) | February 2006 (16th) | Hitachi Air Conditioning Systems Co., Ltd. |
| Chairman Prize of ECCJ | Home freezer/refrigerator "Tappuri Big Sumizumi Cool" (R-SF54WM and 6 other models) | January 2007 (17th) | Hitachi Appliances, Inc. |
| | High output integral type natural refrigerant ($CO_2$) heat pump hot water heater | February 2006 (16th) | Hitachi Home & Life Solutions, Inc. |
| | Gas absorption cold/hot water heater co-generation package (High efficiency EX Gas Eco Pak) (※ Production completed products) | February 2006 (16th) | Hitachi Air Conditioning Systems Co., Ltd. |
| **【Eco-Products Award】** | Sponsor :Eco Products Award Promotion Council (Composed of other public organizations, associations, etc. which agree with the business objective of the promotion council.) (Honors products and services (eco products) considered to reduce environmental impact) | | |
| Eco-Products Awards Minister of Economy, Trade and Industry Prize | High output integral type natural refrigerant ($CO_2$) heat pump hot water heater (RHK-23TBA) | December 2005 (2nd) | Hitachi Home & Life Solutions, Inc. |
| Eco-Products Promotion Council Chairman's Prize of Eco-Products Awards | Washer-dryer (Beat Wash) (BW-DV9F) (※ Production completed products) | December 2005 (2nd) | Hitachi Home & Life Solutions, Inc. |
| **【Global Warming Prevention Activity Minister of the Environment Award】** | Sponsor: Ministry of the Environment (Honors noticeable achievements in preventing global warming to promote global warming countermeasures) | | |
| Technical Development & Commercialization Department | Commercial package-type air conditioners inverter (Hi Inverter IVX 4-way cassette heater-less system) 22.4~33.5kW | December 2006 | Hitachi Appliances, Inc. |
| **【Power Load Leveling Equipment and Systems award】** | Sponsor: Heat Pump & Thermal Storage Technology Center of Japan (Honors power load equalization equipment and systems with superior stability and low resistance power supply) | | |
| Heat Pump & Thermal Storage Technology Center Chairman's Prize | Hitachi Ice thermal storage unit "EHT Series" | June 2006 (8th) | Hitachi Appliances, Inc. |
| **【Chunichi Industrial Technical Award】** | Sponsor: The Chunichi Shimbun (Honors superior industrial technology and product development which contribute to development of Japan's industrial technology and can be expected to be environmentally friendly and have economical and energy saving effects.) | | |
| Chunichi Shimbun Award | High output integral type natural refrigerant ($CO_2$) heat pump hot water heater | December 2006 (20th) | Chubu Electric Power Co., Inc.<br>Kansai Electric Power Co., Inc.<br>Hitachi Appliances, Inc. |

**Hitachi Appliances manufactures a line of products incorporating various environmental measures at manufacturing points that give maximum consideration to global warming, energy conservation, zero emission※1, and other environment preservation measures.**

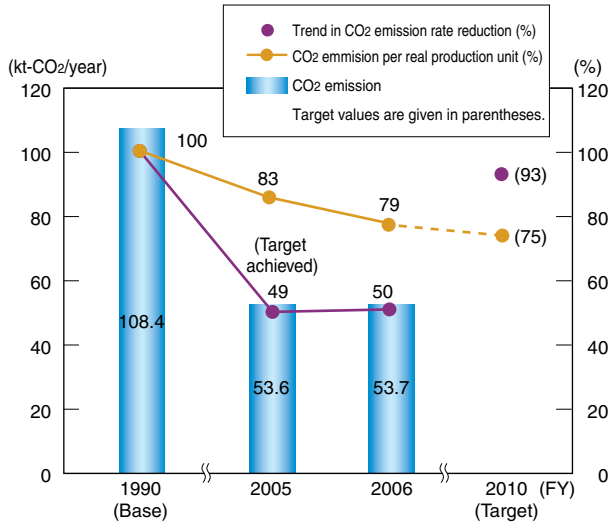
## Global Warming Prevention

To prevent global warming, the Kyoto Protocol that came into force on February 2005 sets a target for Japan to reduce $CO_2$ emissions by 6% (compared to 1990 levels). In response, Hitachi Appliances has set individual $CO_2$ reduction targets for each of its works, and is working to meet a 7% reduction target (compared to 1990 levels) for the entire Hitachi Group by FY2010. In FY2006 the production amount increased, but improvements to equipment that uses steam, updates to presses, and other measures made it possible to hold the amount of $CO_2$ emissions from the works to the FY2005 level of 53,700 t. The ratio of actual $CO_2$ unit of output to production was improved 4% (compared with the 1990 level) from FY2005. Hitachi Appliances will continue to conserve energy at its works as part of the Company's activities to prevent global warming.

### ■FY2006 Main Improvements and Results

| Works | Improvements | $CO_2$ reduction effect (t/year) |
|---|---|---|
| Taga Works | Upgrade of presses (hydraulic → electric) | 21.6 |
| | Thorough temperature control during cooling | 13.3 |
| Tochigi Works | Pneumatic air solenoid valve control | 30.4 |
| Shimizu Works | Improvement of instruments of equipment that uses steam | 57.7 |
| | Improved heat retention of steam pipes | 57.7 |

### ■Transition of domestic $CO_2$ emission



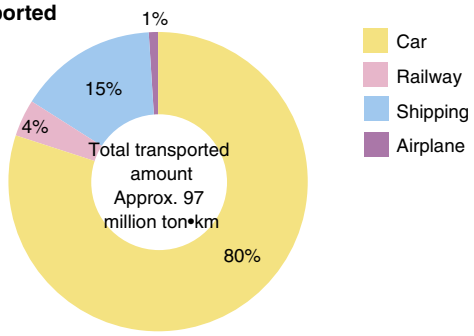

※1 Zero emission…Approach to reducing the final disposal amount to zero by using waste as separate industrial raw material.
Hitachi definition: Current year's final disposal rate 1% or less and final disposal amount up to 5t

※2 Modal shift…Promotion of shipping that dynamically combines railroad/ship and terminal truck transportation by switching from mainline cargo transportation to energy saving and low pollution railroad/ship and terminal truck transport organizations.

## Boosting Transportation Efficiency

The Amended Energy Conservation Law enacted in April 2006 requires shippers shipping 30 million ton･km/yr or more (designated shippers) to create a transportation energy conservation plan and report the amount of energy used. In response, Hitachi Appliances collects all transport data, such as that for product transport. The transport amount for FY2006 of 97 million ton･km/yr fell into that of designated shippers of the Amended Energy Conservation Law, and the amount of $CO_2$ emissions was 22 kt/yr. Based on its energy conservation plan, the Company will continue to rationalize transportation by increasing the loading effect, implementing a modal shift※2 to used of railroads, and other measures.

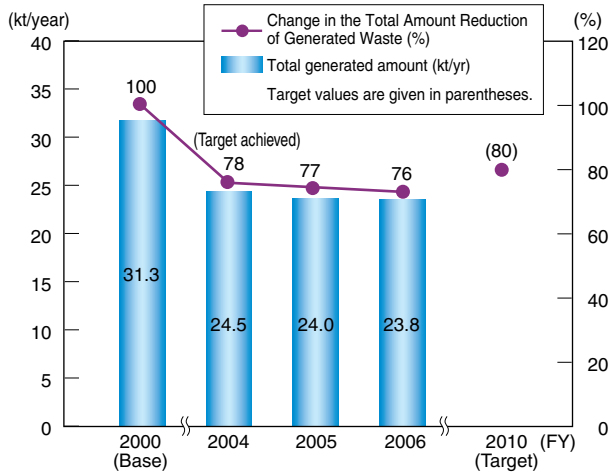
### ■Total transported amount




## Reduction of Generated Waste

Hitachi Appliances is striving to reduce the amount of waste by producing products without wasting resources. From the perspective of resource recycling, the amount of metal scrape and other materials processed as valuable materials are included in the amount of generated waste. The Company is working toward the target of a 20% reduction over the FY2000 level by FY2010. In FY2006, the total generated amount was 23.8 kt/yr, which is a 24% reduction from FY2000.

### ■Change in the Amount of Generated Waste



## Activities to Achieve Zero Emissions and Improving the Resource Recycling Rate

Hitachi Appliances is promoting not only reducing the generated amount (reduce) but also using waste as a new resource (reuse and recycle), and is engaged in activities to achieve the Hitachi Group goal of zero emissions. Since the Shimizu Works achieved zero emissions in FY 2002, it has continued to do continuous to the present year (FY2006).
This not only means reducing the amount that is disposed of in the end, but from the perspective of resource recycling it also means switching to improving the disposal method (final disposal → Thermal Recycling → Recycling → Reuse), so the Hitachi Group Resource Recycling Rate Evaluation Index has been implemented. This index is used to quantitatively assess the resource recycle ability from the environmental burden from a LCA※1 perspective. The Company is engaged in activities to meet its target of improving the resource recycling rate by 10% above the FY2005 value by FY2010.

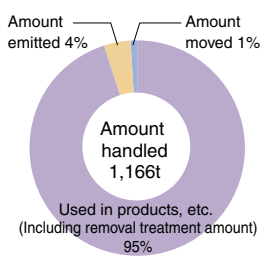
## Management of Chemicals

Of the chemical substances used in the manufacturing process, those considered to have an effect on the environment and the human body are managed by the Hitachi Group common management system CEGNE※2 (Chemical Environmental Global Network) and PRTR※3 is implemented and other suitable management and planned reduction are carried out.

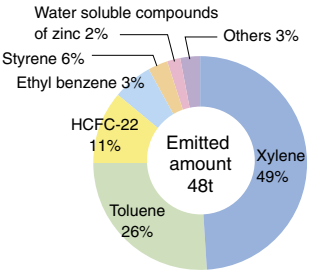
## Results of investigation of chemical substances subject to the PRTR Law

In response to the PRTR Law (Pollutant Release and Transfer Register Law) enacted in April 2001, Hitachi Appliances controls the amount of emissions into the air and water, waste carried off site, and the amount of waste carried away in waste water. In addition, the Company also controls substances whose amounts handled are less than reportable amounts. The total amount handled in FY2006 was 1,166t.

**Results of investigation of chemical substances subject to the PRTR Law**




Amount handled and amount emitted and moved

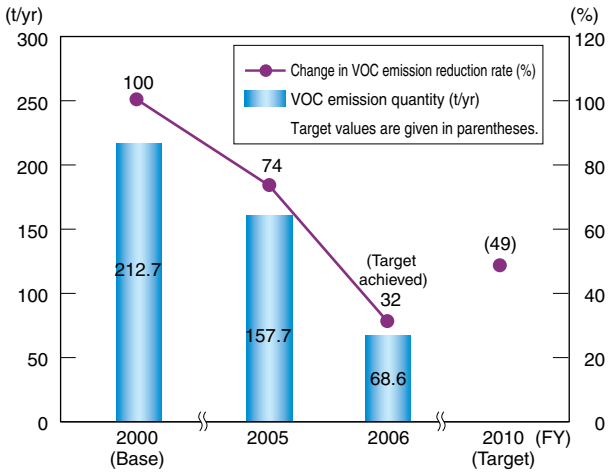



Breakdown of emitted amount

## VOC※4 Emission Quantity Inspection Results

With the enactment of the Amended Air Pollution Control Act in April 2005, Hitachi Appliances on its own selected 41 types (xylene, toluene, methanol, etc.) of VOC and created a plan to reduce their emission amounts. The 2006 VOC emission amount was 68.6t, which is a 68% reduction from the 2000 value.

**Change in VOC emission quantity**




※1 LCA…Life Cycle Assessment
※2 CEGNET…Chemical Environmental Global Network
※3 PRTR…Pollutant Release and Transfer Register
System which notifies and publishes the amount of chemical substances emitted into the environment and the amount carried outside the business office including waste, etc.
※4 VOC…Volatile Organic Compounds

# Environmental Collaboration with Stakeholders

**The motivation of Hitachi is to work together with customers, local communities, suppliers, employees, and other stakeholders to "create a sustainable society," and is providing information and holding dialog in a variety of forms to accomplish this.**

As one aspect of its activities to contribute to the global environment, the Company holds cleanup activities around its Shimizu, Tochigi, and Taga Works and along the coast.
In particular, the Company has continuously held the Taga Improvement Association cleanup activity for the Kawarago Swimming Beach (Hitachi City, Ibaraki Prefecture) for 40 years and more since 1965.
In addition, each works annually holds an event: Hitachi Festival (Shimizu Works), Cherry Festival (Tochigi Works), and Family Day (Taga Works). These events are attended by families and community members as well as employees to deepen community interaction.
In addition, headquarters holds an environment classes for junior high school students and study meetings on such topics as the global warming problem and the environmentally friendly aspects of the Company's products to promote environmental related discussion across generations.
Kanto Eco Recycle, affiliated companies, which operates the home appliance recycling plant, holds a broad range of activities including plant tours and social education about environmental problems, recycling, and other topics.

Explanation of environmental protection activities to the heads of neighborhood associations in the communities around the works (Shimizu Works)

Cleanup activities around the works (Shimizu Works)

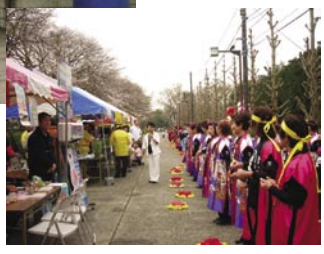
Plant tours
(Kanto Eco Recycle)

Plant tours (Kanto Eco Recycle)



Environment classes for junior high school students
(Head Office)

Family Day (Taga Works)

Cherry Festival (Tochigi Works)

Kawarago Swimming Beach Cleanup (Taga Works)

# Introduction to the Works (As of June 2007)

★Date environment ISO14001 certification acquired



## Head office, Takeshiba office

**Head Office (Home Appliance Group)**
Hitachi Atago Bldg., 15-12, Nishi Shimbashi 2-chome, Minato-ku, Tokyo 105-8410 Japan
TEL: 81-3-3502-2111

**Takeshiba Office (Air Conditioning System Group)**
New Pier Takeshiba South Tower, 16-1, Kaigan 1-chome, Minato-ku, Tokyo 105-0022 Japan
TEL: 81-3-6403-4555

## Factories

**Shimizu Works**
(Shimizu Air Conditioning Works, Air Conditioning System Group)
(Water Heater Division, Home Appliance Group)
390, Muramatsu, Shimizu-ku, Shizuoka City,
Shizuoka 424-0926 Japan
TEL: 81-54-334-2081 ★October 28, 1997

**Tochigi Works**
(Tochigi Air Conditioning Works, Air Conditioning System Group)
(Tochigi Home Appliance Works, Home Appliance Group)
800, Tomita, Ohira-machi, Shimotsuga-gun,
Tochigi 329-4493 Japan
TEL: 81-282-43-1122 ★January 29, 1997

**Tsuchiura Works**
(Tsuchiura Air Conditioning Works, Air Conditioning System Group)
603, Kandatsu-machi, Tsuchiura City,
Ibaraki 300-0013 Japan
TEL: 81-29-832-5840 ★March 25, 1997

**Taga Works**
(Taga Home Appliance Works, Home Appliance Group)
1-1, Higashitaga-cho 1-chome, Hitachi City,
Ibaraki 316-8502 Japan
TEL: 81-294-34-1111 ★July 22, 1996

## Sales Divisions, Branches, and Marketing Offices (Air Conditioning System Group)

**International Operation Division**
New Pier Takeshiba South Tower, 16-1, Kaigan 1-chome, Minato-ku, Tokyo 105-0022 Japan
TEL: 81-3-6403-4541

**Large Tonnage Chiller Sales Division**
New Pier Takeshiba South Tower, 16-1, Kaigan 1-chome, Minato-ku, Tokyo 105-0022 Japan
TEL: 81-3-6403-4500

**Hokkaido Marketing Branch**
Oda Bldg., 10-1, Kita Kujo Nishi 3-chome, Kita-ku, Sapporo City, Hokkaido 060-0809 Japan
TEL: 81-11-717-5301

**Kitanihon Branch Office**
Ookiaoba Bldg., 9-7, Futsuka-machi, Aoba-ku, Sendai City, Miyagi 980-0802 Japan
TEL: 81-22-266-1321

**Fukushima Marketing Branch**
5-15, Midori-machi, Koriyama City, Fukushima 963-8023 Japan
TEL: 81-24-921-5550

**Kanto Branch Office**
New Pier Takeshiba South Tower, 16-1, Kaigan 1-chome, Minato-ku, Tokyo 105-0022 Japan
TEL: 81-3-6403-4510

**Hokuriku Branch Office**
627-3, Kurosaki, Toyama City, Toyama 939-8214 Japan
TEL: 81-76-429-4051

**Chubu Branch Office**
Sakae Center Bldg., 13-20, Sakae 3-chome, Naka-ku, Nagoya City, Aichi 460-0008 Japan
TEL: 81-52-251-0371

**Kansai Branch Office**
OX-Nishihonmachi Bldg., 10-10, Nishihonmachi 1-chome, Nishi-ku, Osaka City, Osaka 550-0005 Japan
TEL: 81-6-6531-9111

**Chushikoku Branch Office**
Sonpo Japan Hiroshima Otemachi Bldg., 2-31, Otemachi 3-chome, Naka-ku, Hiroshima City, Hiroshima 730-0051 Japan
TEL: 81-82-240-6151

**Shikoku Marketing Branch**
Hanazono Bldg., 1-5, Hanazonocho 1-chome, Takamatsu City, Kagawa 760-0072 Japan
TEL: 81-87-833-8701

**Kyushu Branch Office**
9-17, Shimizu 4-chome, Minami-ku, Fukuoka City, Fukuoka 815-0031 Japan
TEL: 81-92-561-4851

**Engineering & Construction Division**
OX-Nishihonmachi Bldg., 10-10, Nishihonmachi 1-chome, Nishi-ku, Osaka City, Osaka 550-0005 Japan
TEL: 81-6-6531-9113

## Technical Training Centers

**Technical Training Center (Shimizu)**
390, Muramatsu, Shimizu-ku, Shizuoka City, Shizuoka 424-0926 Japan
TEL: 81-54-335-4320

**Technical Training Center (Kyushu)**
9-17, Shimizu 4-chome, Minami-ku, Fukuoka City, Fukuoka 815-0031 Japan
TEL: 81-92-561-4854

**Service Technical Training Center (Tochigi)**
800, Tomita, Ohira-machi, Shimotsuga-gun, Tochigi 329-4493 Japan
TEL: 81-282-43-1122

## Affiliated Sales and Service Companies

**Hitachi Air conditioning Sales Kanto Co., Ltd.**
29-8, Toyotama-kita 5-chome, Nerima-ku, Tokyo 176-0012 Japan
TEL: 81-3-5999-1121

**Niigata Hitachi Co., Ltd.**
752-10, Takeooroshishinmachi, Niigata City, Niigata 950-0867 Japan
TEL: 81-25-273-2211

**Osaka Hitachi Air Conditioning and Refrigeration Co., Ltd.**
Osaka Yanagiya Bldg. 6F, 2-5 Tokiwa-machi 2-chome, Chuo-ku, Osaka City, Osaka 540-0028 Japan
TEL: 81-6-4792-2501

**Kyushu Hitachi Air Conditioning Co., Ltd.**
8-18, Takagi 1-chome, Minami-ku, Fukuoka City, Fukuoka 815-0004 Japan
TEL: 81-92-452-5130

**Kanagawa Hitachi Air Conditioning Co., Ltd.**
35-12, Matsugaoka, Kanagawa-ku, Yokohama City, Kanagawa 221-0843 Japan
TEL: 81-45-322-6621

**Shizuoka Hitachi Air Conditioning and Refrigeration Co., Ltd.**
84-1, Hijiriisshiki, Suruga-ku, Shizuoka City, Shizuoka 422-8007 Japan
TEL: 81-54-264-7177

**Hitachi Air Conditioning Techno Service Co., Ltd.**
29-17, Toyo 5-chome, Koto-ku, Tokyo 135-0016 Japan
TEL: 81-3-3649-6177

## Affiliated Manufacturing Companies

**Hitachi Reftechno, Inc.**
709-2, Tomita, Ohira-machi, Shimotsuga-gun, Tochigi 329-4404 Japan
TEL : 81-282-43-4111
★January 29, 1997

**Hitachi Kucho SE, Ltd.**
8-1, Shinmidori-cho, Shimizu-ku, Shizuoka City, Shizuoka 424-0927 Japan
TEL : 81-54-334-2111
★October 28, 2000

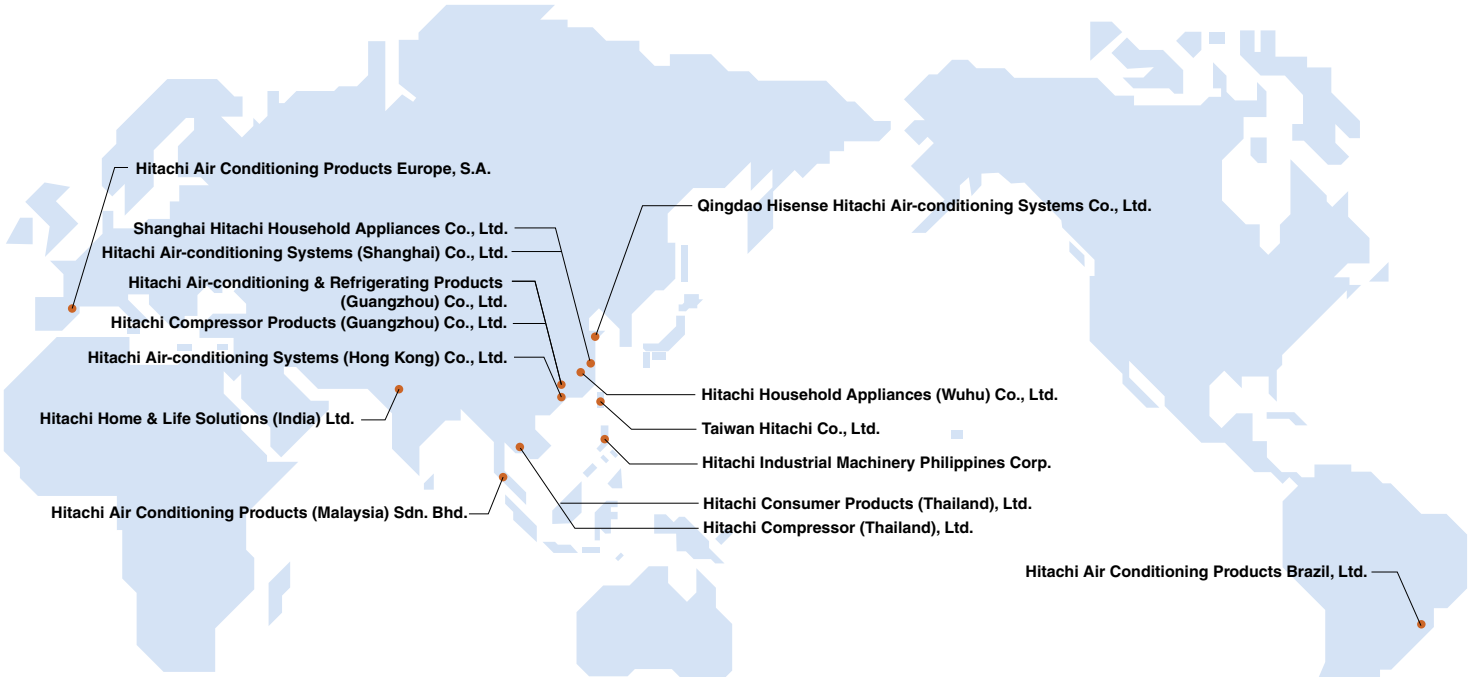
**Hitachi Taga Technology, Ltd.**
1-1, Higashitaga-cho 1-chome, Hitachi City, Ibaraki 316-8502, Japan
TEL : 81-294-33-2251
★July 22, 1996

## Other Affiliated Companies

**Kanto Eco Recycle Co., Ltd.**
800, Tomita, Ohira-machi, Shimotsuga-gun, Tochigi 329-4493 Japan
TEL: 81-282-43-1122
★April 1, 2002

**Hitachi Softec Co., Ltd.**
Hitachi Atago Bldg., 15-12, Nishi Shimbashi 2-chome, Minato-ku, Tokyo 105-0003 Japan
TEL: 81-3-3506-1411

**Mito Steel Co., Ltd.**
927, Hashinai, Sawa, Hitachinaka City, Ibaraki 312-0001 Japan
TEL: 81-292-85-0765




## China

**(Taiwan)**
**Taiwan Hitachi Co., Ltd.**
63, Nanking East Road, Sec. 3 Taipei, Taiwan
【Air conditioners, Refrigerators, Chiller units, others】
Established: April 1965 ★August 28, 1997

**(Guangzhou)**
**Hitachi Air-conditioning & Refrigerating Products (Guangzhou) Co., Ltd.**
Aotou Town Qigan, Conghua City,
Guangzhou 510935, China
【Packaged air conditioners, chiller units】
Established: March 1998 ★June 28, 2004

**(Guangzhou)**
**Hitachi Compressor Products (Guangzhou) Co., Ltd.**
Aotou Town Qigan, Conghua City,
Guangzhou 510935, China
【Scroll compressors】
Established: October 2003 ★April 30, 2006

**(Qingdao)**
**Qingdao Hisense Hitachi Air-conditioning Systems Co., Ltd.**
Hisense Tower, 17, Donghai Xi Road,
Qingdao 266071, China
【Packaged air conditioners】
Established: January 2003 ★December 19, 2005

**(Shanghai)**
**Shanghai Hitachi Household Appliances Co., Ltd.**
361 Danba Road, Shanghai 200062, China
【Room air conditioners, Washing machines】
Established: April 1994 ★November 23, 2000

**(Wuhu)**
**Hitachi Household Appliances (Wuhu) Co., Ltd.**
No.1 Qiluoshan West Road, Wuhu City,
Anhui Province 241009, China
【Room Air Conditioners】
Established: August 2001 ★October 10, 2003

**(Shanghai)**
**Hitachi Air-conditioning Systems (Shanghai) Co., Ltd.**
Room 1001&1007, 10f Rui Jin Building,
No.205 Maoming Road(S), Shanghai 200020, China
【Sales of air conditioning equipment】

**(Hong Kong)**
**Hitachi Air-conditioning Systems (Hong Kong) Co., Ltd.**
Room 702-3, 7/F, Wharf T&T Center, Harbour City, Canton Road,
Tsimshatsui, Kowloon, Hong Kong, China
【Sales of air conditioning equipment】

## Philippines

**Hitachi Industrial Machinery Philippines Corp.**
PEZA Drive, Special Economic Processing Zone
First Cavite Industrial Estate Dasmarinas,
Cavite, Philippines
【Absorption and centrifugal chillers】
Established: May 1995

## Thailand

**Hitachi Consumer Products (Thailand), Ltd.**
610/1 Moo 9 Tambol Nongki Amphur Kabinburi,
Prachinburi 25110, Thailand
【Washing machines, Refrigerators, others】
Established: November 1970 ★December 20, 1999

**Hitachi Compressor (Thailand), Ltd.**
1/65 Moo 5, Rojana Industrial Park, Tambol Kanham
Amphur U-Thai, Ayutthaya 13210, Thailand
【Compressors】
Established: September 1993 ★November 14, 1999

## Malaysia

**Hitachi Air Conditioning Products (Malaysia) Sdn. Bhd.**
Lot 10, Jalan Kemajuan, Bangi Industrial Estate,
43650 Bandar Baru Bangi, Selangor Darul Ehsan,
Malaysia
【Room air conditioners, Scroll compressors】
Established: August 1989 ★April 22, 1997

## India

**Hitachi Home & Life Solutions (India) Ltd.**
Hitachi Complex, Karan Nagar, Kadi, Dist.
Mehsana-382727 Gujarat, India
【Room air conditioners, others】
Established: December 1984 ★February 14, 2006

## Spain

**(Barcelona)**
**Hitachi Air Conditioning Products Europe, S.A.**
Ronda Shimizu 1 Poligono Industrial Can Torrella
08233 Vacarisses, Barcelona, Spain
【Packaged air conditioners, Chiller units】
Established: November 1991 ★May 4, 1999

## Brazil

**(Sao Paulo)**
**Hitachi Air Conditioning Products Brazil, Ltd.**
Av. Paulista 854-7 Andar, Bela Vista,
CEP. 01310-913,Sao Paulo-S.P., Brazil
【Packaged air conditioners, Chiller units】
Established: April 1972

# Hitachi Appliances, Inc.

**Environment Promotion Department**

Hitachi Atago Bldg., 15-12, Nishi Shimbashi 2-chome, Minato-ku, Tokyo 105-8410 Japan
TEL.+81-3-3502-2111  FAX.+81-3-3506-1442



Issued August 2007
Printed in Japan (ICC)