

Scope of Report

■ Reporting Period FY2007 (April 1, 2007 to March 31, 2008) ■ 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 (FY2007 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 2009

■ 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/>

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HITACHI
Inspire the Next

Hitachi Appliances
Environmental Report **2008**

 **Hitachi Appliances, Inc.**



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Issued September 2008

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Stop Global Warming

Mission

Hitachi Appliances will reduce greenhouse gas emissions from its own activities.
Hitachi Appliances will introduce products and systems that contribute to the reduction of greenhouse gas emissions.

The Earth is experiencing increases in air and ocean temperatures. As a result, the melting of glaciers and ice caps has accelerated and sea levels are rising.

Judging from these changes, the UN Intergovernmental Panel on Climate Change (IPCC) issued a report in November 2007, which stated warming of the climate is unequivocal and that the global average temperature increase since the middle of the 20th century was highly likely to be caused by growing greenhouse gas emissions resulting from human activities. The report also predicts a 1.1-6.4 degree increase in the global average temperature by the year 2100, and points out that such global warming will have far-reaching impacts on water, ecosystems, food security, ocean/coastal areas and human health, which may bring about unexpected or irreversible phenomena.

The global annual greenhouse gas emissions reached 26.6 billion tons in 2005, of which the majority was CO₂ emissions. Only an estimated 11 billion tons of CO₂ emissions can be naturally absorbed by the Earth per year, and therefore, greenhouse gases remain in the atmosphere and are increasing. As such, the reduction of greenhouse gas emissions is a top priority on the international agenda for the prevention of global warming.

The Kyoto Protocol provides a framework for the reduction targets of greenhouse gas emissions to be achieved by the industrialized countries for the prevention of global warming.

Japan, for its part, is committed to a 6% reduction in emissions compared with 1990 levels during the period of 2008-2012 (8% for the EU, 5.2% for the entire industrialized nations).

Discussion on the post-Kyoto Protocol has also started.

In the Chair's Summary of the G8 Heiligendamm Summit held in June 2007, the participants agreed to "seriously consider how to reduce in half greenhouse gas emissions globally by 2050."

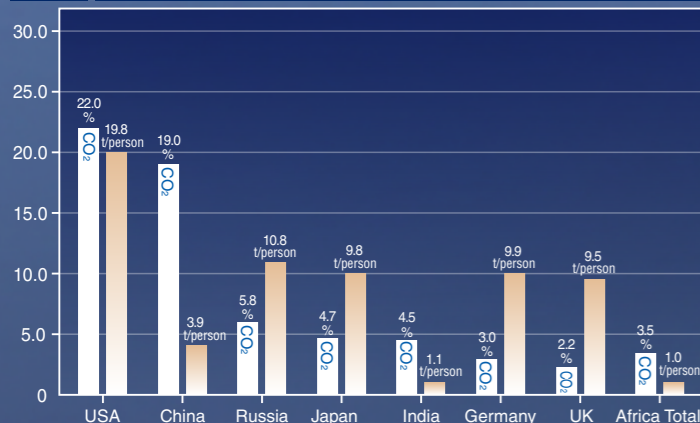
Furthermore, the 13th Conference of the Parties of the UN Framework Convention on Climate Change in December 2007 adopted the "Bali Roadmap," the timeline of negotiations toward a framework for 2013 with a view to reaching a final agreement by the end of 2009. In order to halve global greenhouse gas emissions by 2050, advanced nations, who emit comparatively large amounts of greenhouse gas emissions, need to achieve around a 60%-80% reduction.

In the 21st century, people across the world are expected to create a low carbon society in close cooperation.

Hitachi Appliances regards it as our important mission to contribute to the prevention of global warming by reducing greenhouse gas emissions from our activities and by introducing products and systems that are effective for the reduction of greenhouse gas emissions.



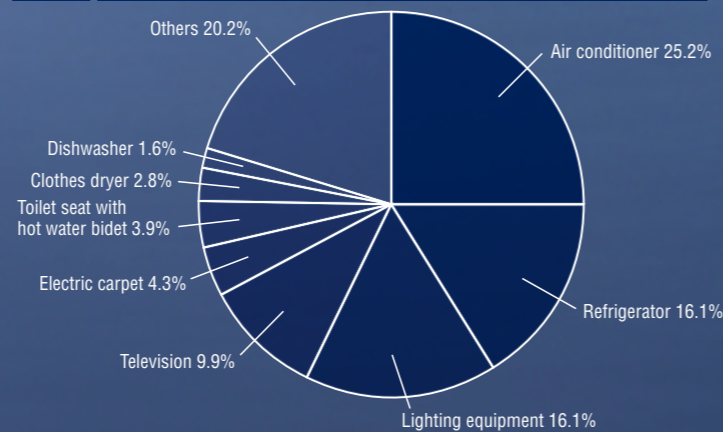
Reference Major countries' CO₂ emissions share of the world total, Per-capita emissions of each country (2005)



Industrialized nations' CO₂ emissions are large on a per-capita basis as well as on a national basis. Developing countries' emissions per capita are small, but, as for those with large populations, emissions are expected to explode with economic growth.

Source: Energy Data and Modeling Center, the Institute of Energy Economics (IEE), Japan, "2008 EDMC Handbook of Energy & Economic Statistics in Japan"

Reference Percentage of Each Appliance's Household Energy Consumption



In Japanese households, nearly 40% of total CO₂ emissions are generated by electricity consumption, particularly for air conditioners and refrigerators.

Source: Agency for Natural Resources and Energy, Japan "Denryoku Jukyū no Gaiyō, Heisei 16 fiscal year" (Outline of 2004 Electricity Demand and Supply, estimated record of FY2003, in Japanese)

Glossary of global warming prevention terms

UN Framework Convention on Climate Change	The Convention is the most comprehensive and fundamental treaty for international measures against climate change, which was adopted in May 1992 and entered into effect in March 1994. Almost all countries in the world (192 nations/regions as of October 2007) have adopted the treaty.
Kyoto Protocol	The Kyoto Protocol was adopted at the 3rd Conference of the Parties in 1997 (Kyoto Conference) based on the Framework Convention on Climate Change. It includes the greenhouse gas emissions reduction target of the industrialized nations. Greenhouse gases refer to CO ₂ (carbon dioxide), CH ₄ (methane), N ₂ O (nitrous oxide), SF ₆ (sulphur hexafluoride), HFCs (hydrofluorocarbons) and PFCs (perfluorocarbons). As of October 2007, 176 countries/regions have ratified the Protocol.
IPCC (Intergovernmental Panel on Climate Change)	The World Meteorological Organization and the UN Environment Programme jointly established this Panel as a UN organization in 1988. It conducts scientific, technical and socio-economic assessments on global warming, and provides acquired knowledge to policy makers and the public. The Panel adopted and announced the Synthesis Report of the Fourth Assessment Report in November 2007. The 2007 Nobel Peace Prize was awarded to the IPCC.
Albert Arnold Gore, Jr.	Al Gore was the 45th Vice President of the United States (term: 1993-2001). Since leaving office, he has been active on the lecture circuit and engaged in various activities for the prevention of global warming. He took part in "An Inconvenient Truth," a documentary which addressed the theme of global warming. He was jointly awarded the 2007 Nobel Peace Prize.
Point of No Return	The Point of No Return refers to the point at which the thermal inertia of climate system irreversibly raises the Earth's temperature as a result of the advancement of global warming. Experts speculate that a 2 degree temperature increase from Industrial Revolution levels would render the world at the Point of No Return.
Low carbon society	A low carbon society is a society with low CO ₂ emissions achieved through a transformation in business activities and lifestyles.
Cool Earth 50 (Beautiful Planet 50)	Cool Earth 50 is the long-term target of halving global greenhouse gas emissions by 2050, which is advocated by Japan.
Carbon offset	Carbon offset is a scheme in which people or organizations can offset greenhouse gas emissions from their own activities, in particular when a reduction in emissions may be difficult, (a) by purchasing greenhouse gas reduction or absorption credits realized by others, and (b) by conducting other activities for reduction or absorption.

(References)

"Future International Response to Climate Change" (Interim Report by the Expert Sub-committee on the International Strategy for Climate Change, the Earth Environment Committee, the Central Environment Council, Japan, December 2004, in Japanese)

"IPCC Synthesis Report of the Fourth Assessment Report: Summary for Policymakers" (November 2007)

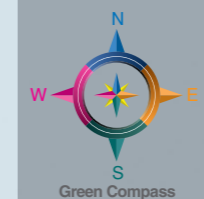
"IPCC Synthesis Report of the Fourth Assessment Report: Summary" (Ministry of the Environment, Japan, December 2007, in Japanese)



Company Overview and Main Products

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
Head office Hitachi Atago Bldg., 15-12, Nishi Shimbashi 2-chome, Minato-ku, Tokyo
Number of employees (consolidated) Approx. 17,000 (As of April 2008)
Website <http://www.hitachi-ap.com/>

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At Buildings and Hotels, Hospitals, Libraries, etc.

Multi-air conditioners for buildings
 Packaged air conditioners for equipment
 Gas heat pump air conditioners
 Industrial dehumidifiers



Hotels, Hospitals

Factories

At Factories and Laboratories

Centrifugal chillers
 Absorption chiller-heaters
 Packaged air conditioners for equipment
 Water chillers
 Scroll chillers
 Spot air conditioners
 Clean systems and equipment
 Clean bench and associated equipment
 Anti-biohazard systems and equipment
 Environmental testing equipment
 Super low-temperature freezers



Offices

Households

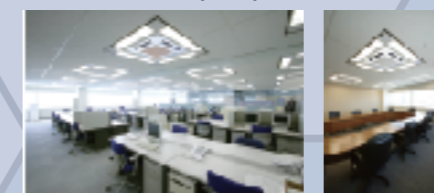
In Households

Refrigerator
 Microwave oven
 IH cooking heater
 Food waste disposer
 Rice cooker
 Washer-dryer
 Vacuum cleaner
 Room air conditioner
 Ventilation fan
 Air purifier
 Home heat pump water heaters
 Electric water heaters
 Inverter pump



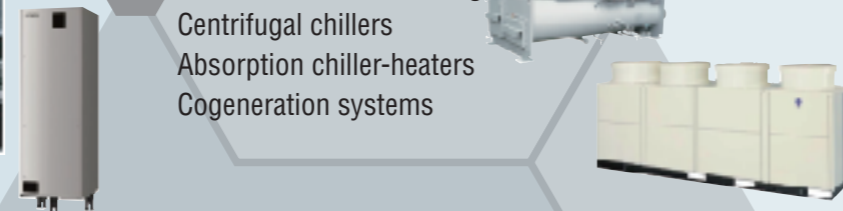
At Stores and Offices

Packaged air conditioners for stores and offices
 Industrial heat pump water heaters



For Area Air Conditioning

Centrifugal chillers
 Absorption chiller-heaters
 Cogeneration systems



At Shopping Centers

Multi-air conditioners for buildings
 Centrifugal chillers
 Absorption chiller-heaters
 Cogeneration systems
 Scroll chillers
 Refrigerator and freezer units
 Scroll cooling systems
 Unit coolers
 Screw chillers
 Low-temperature chiller units





Message from the President Livable Society and Comfortable Life

Hitachi Appliances will contribute to “quality of life,” and provide “Lifestyle Zone Solutions” as a partner to support customer’s eco-consciousness.



Environmentally friendly measures are being accelerated worldwide, such as preventing global warming, recycling resources and reducing chemical substances that have an impact on the environment. In particular, the 2007 Nobel Peace Prize awarded to the IPCC (UN Intergovernmental Panel on Climate Change) and former US Vice President Al Gore, has considerably raised public awareness of the global warming issue. Today, it is virtually common understanding worldwide that we must halve greenhouse gas emissions by 2050 and transition to a more eco-friendly lifestyle to that end.

Hitachi Appliances is globally expanding the “Lifestyle Zone Solutions Business” to support and improve people’s living foundations including homes, offices and shops, underpinned by our comprehensive air conditioning business which offers a broad lineup from household air conditioners to large business-use chillers; our home appliances business which features washing machines, vacuum cleaners and refrigerators; and our all-electric housing business which includes water heaters and kitchen equipment.

In conducting our business operations, we must address environmental issues even further, recognizing it as one pillar of our corporate social responsibilities for the sustainable development of the entire society. At the same time, we regard this challenge as a business opportunity for our company.

To this end, the Hitachi Group devised “Environmental Vision 2015,” a mid-term plan compiled in FY2006 and “Environmental Vision 2025,” a long-term plan compiled in FY2007. These plans will

serve as the foundation for our efforts in global warming prevention, eco-system preservation and resources recycling. Among these activities, the realization of “Emission-Neutral” is of critical importance.

“Emission-Neutral” is a concept that equalizes the “amount of direct environmental load generated” by energy consumption for our activities such as production, transport and waste-recycling with the “amount of social environmental load reduced” by developing products with energy-saving features such as decreased energy consumption. We are endeavoring to achieve the equality by FY2015.

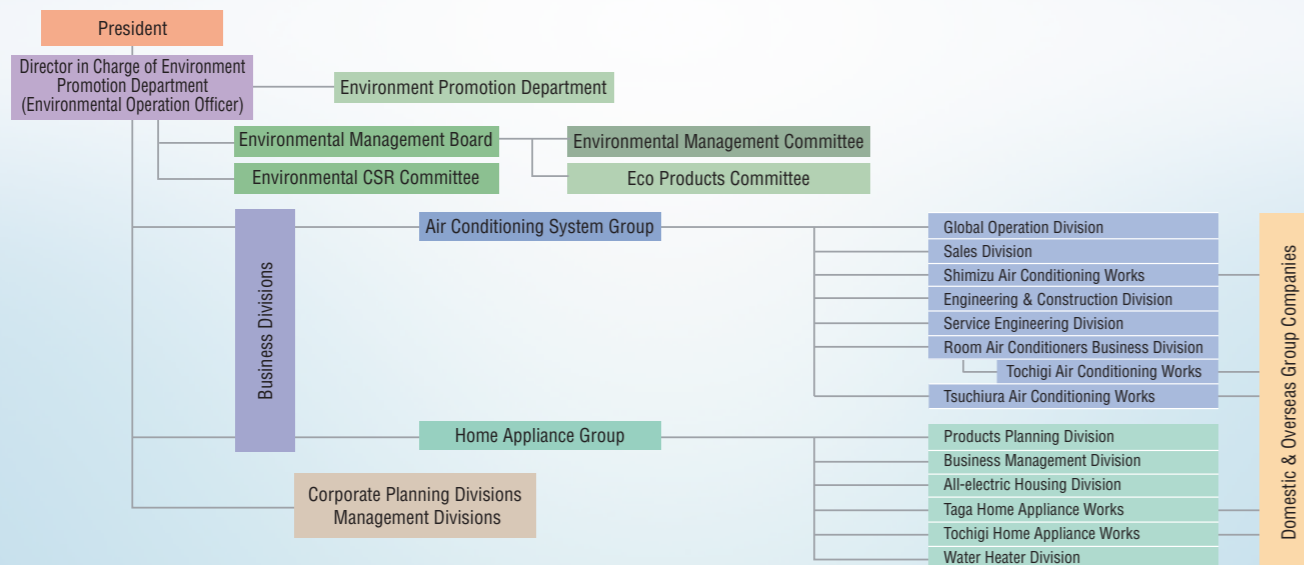
Toward the realization of “Emission-Neutral,” we will advance changes in our mindset by setting even higher goals, thereby effectively reducing the environmental impact of all of our business activities. At the same time, we will enhance our energy-saving, eco-friendly technologies, and widely offer products and services that are suitable for the environmentally-conscious 21st century. In addition, we will clearly communicate our activities and successes with our customers and other stakeholders to keep them aware and informed.

Hitachi Appliances will contribute to “quality of life” while nurturing close ties with people’s “Lifestyle Zone,” so that we may pass on an environment that is rich in greenery, air and water to the next generation. We will also play an active role as a public institution as well as an environmentally-advanced enterprise, so that we can support your commitment to eco-conscious activities as your partner.

As we set our sights even higher, we welcome your frank opinions about our activities.

Takazumi Ishizu
Takazumi Ishizu
President and Director

Environmental Management Structure in Hitachi Appliances (as of April 2008)



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



Double Award of Energy Conservation Grand Prizes

We received the “2007 (18th) Energy Conservation Grand Prizes for Excellent Energy Conservation Equipment” (Chairman Prize of ECC) for both room air conditioners and refrigerators, which were the two highest energy-consuming home appliances, in appreciation of their energy-saving features. Our refrigerators have been awarded the prize for two consecutive years.

Energy Saving with Conventional Compact Size Energy Conservation Standard achievement percentage 118%

Room Air Conditioner

Mist Deodorizing Stainless Steel Clean Shirokumakun

This is a powerful yet energy-efficient room air conditioner with the conventional size of 11 years ago. The automatic filter cleaning function and the stainless inside structure create long-lasting power.



RAS-S40X2

Energy Conservation

Annual Performance Factor of Energy Consumption (APF) was improved by about 50% with technologies such as an IQ-PAM engine and a high-efficiency scroll compressor. *

*Comparison with RAS-401HX2, our 1997 product

Uses Recycled Materials

Recycled plastic is used in the propeller fan of the outside unit and other components.

Long-Term Usability

The automatic filter cleaning function and the stainless inside structure keeps the air conditioner clean, thereby sustaining air conditioning capacity and energy efficiency.

Reduced Chemicals

This product is labeled with the J-Moss Green Mark. *See P17

www.kadenfan.hitachi.co.jp/ra (Only in Japanese)

Large Capacity & Energy Saving with No Additional Space for Installment Energy Conservation Standard achievement percentage 125%

Refrigerator

Vacuum Chilled to Keep Foods Fresh

Vacuum compartment uses vacuum storage to protect nutrients, preserve freshness, and prevent deterioration of easily oxidized foods. The thin wall construction has a capacity of 601 liters and requires an installment space similar to those of 10 years ago.



R-X6000

Energy Conservation

The annual power consumption amount was reduced by about 20% by using new technologies including a flexible vacuum insulation panel and PAM & low-speed control. *

*Comparison with R-W5700, our 2007 product

Prevention of Global Warming

Utilizes the non-fluorocarbon refrigerant R600a (isobutane), which has a very low environmental impact.

Uses Recycled Materials

Recycled plastic is used in the printed circuit board case and other parts.

Reduced Chemicals

This product is labeled with the J-Moss Green Mark. *See P17

www.kadenfan.hitachi.co.jp/rei (Only in Japanese)

In line with “Reduce 1kg-CO₂ per day and person,” a campaign slogan of the Team Minus 6%, we use the label of a Shirokuma (white bear) that stands for a 365kg CO₂ reduction, which is the per capita target of the campaign. The label is displayed in catalogues and other sales promotion media of our products to represent their CO₂ reduction amount.

Go for it! One kg CO₂ reduction per person a day!



The RAS-S40X2 room air conditioner reduces approximately 298kg CO₂ per year, and the R-X6000 refrigerator reduces approximately 49kg CO₂ per year.

Air conditioner RAS-S40X2

Refrigerator R-X6000

Compact Microwave Oven with Large Capacity Energy Conservation Standard achievement percentage 110%

Microwave Oven

Health Chef
Delicious Medley

This superheated steam microwave oven automatically calculates the appropriate heating temperature and time based on food volume, maximizing taste. This space-saving oven boasts a large capacity of 33L.



MRO-DV200

Energy Conservation

Annual power consumption was reduced by 25% by employing a more efficient heating method, a four-layer insulation structure, and other features.

*Comparison with conventional model (MRO-A1, our 2000 product)

Uses Recycled Materials

Recycled plastics are used for leg cover and other parts.

Long-Term Usability

Cleaning has been improved by employing a table plate that can be easily removed for cleaning, an infrared black coat that resists grease adherence and can be easily wiped clean, and other means.

Reduced Chemicals

The product is labeled with the J-Moss Green Mark.
*See P17



High Heat Resistant, All Metal Supporting "Triple Power IH" for Elaborate Cooking

IH (Induction Heating) Cooking Heater

Silent Smokeless
Triple Power IH

This is a three heat outlet IH cooking heater featuring an "all metal supporting IH" on the right side that can handle all metal pots and pans. Easy-to-clean glass surface and deodorizing palladium oxide catalyst are employed.



HT-B10TS

Energy Conservation

Annual energy consumption was reduced by 16% with wide inverter and new PAM control.

*Comparison with conventional model (HTW-4DA, our 1999 product)

Environmental Protection

Design reduces noise of 35dB when iron pan is used.

Long-Term Usability

Fluorine coating of the grill plate, as well as detachable ventilation pockets, make cleaning easier.



First Ever Washer-Dryer Featuring Wind Iron*1 Dry Clothes Gently with Fewer Wrinkles

Drum-Type Washer-Dryer

Big Drum
with Wind Iron

This is a drum-type washer-dryer featuring a wind iron and a big drum with a 60cm diameter. The wind iron dries clothes gently with fewer wrinkles. The big drum beats and washes clothes with a high drop, and then dries them gently by broadly stretching them.

Energy Conservation

Shorter drying time as a result of the efficient drying system with higher-velocity wind and more spin has reduced the amount of energy consumption by about 50%. *2

Water Conservation

A washing and drying system employing a circulation pump and a bathwater pump has reduced tap water consumption by about 90%. *2

Uses Recycled Materials

Recycled plastics are used in the tub, frame and others.

Reduced Chemicals

This product is labeled with the J-Moss Green Mark.
* See P17



BD-V2000

*1 Announced on September 26, 2007 for household washer-dryer
*2 Comparison with conventional products (WD-74B, our 2002 product)



Cleans Even Bacteria and Viruses, Premium Clean, a Cyclone-Type Cleaner with Dust Cleaning Rate of 99.999%

Cleaner

Robot Cyclone

This is a cyclone-type cleaner with a dust removal rate of 99.999% realized by the three-way circuit type cyclone and the plasma ULPA structure. It also employs a dust case automatic lift-up mechanism to reduce strain on the arms and waist.



CV-RS1

Energy Conservation

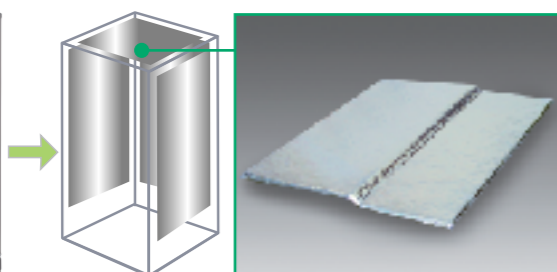
The dust hunter head perceives the type of floors, and the speed and power of the cleaner is automatically optimized, thereby increasing energy efficiency.

Long-Term Usability

The electric spiral dust filter automatically cleans itself after each use. This prevents the filter from becoming clogged, and maintains the cleaner's power.



Hitachi-Vacuum Insulation Panel Hi-VIP



Flexible vacuum insulation panel with three-dimensional molding

A vacuum insulation panel envelops the area around the core materials in an airless vacuum to suppress heat transfer by convection and conduction, thereby improving the thermal insulation effect. Hitachi Appliances' Hi-VIP vacuum insulation seals the core material with a laminated film in the vacuum to provide thermal insulation performance approximately 25 times greater than that of glass wool insulation for residences (thermal conductivity 0.0015 W/m-K). An additional feature is the three-dimensional molding, by which the panel can be used for non-flat parts. The panel is currently used in the Company's refrigerators, super low-temperature freezers, and other products.

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

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



Laminated film



Core Material (White Wool)

● No adhesive is used to achieve a wide operational temperature range.



Moisture absorbent (Synthetic Zeolite)

● Absorbs moisture and gases to prevent a decrease in insulation performance.
● Unlike conventional calcium oxide, it can be recycled.
● Can be formed into flat surfaces and is unaffected by the surface shape.

"Powerful Double Deodorization" and "Powerful Sanitary Humidifying" Make the Entire Room Comfortable

Air Purifier

Powerful Deodorization and Powerful Humidifying
Clean Air

This air purifier has a 99% deodorizing rate and double deodorization power due to Nano-technology BIG HEPA filter and ion mist. It is also equipped with a large 4 liter tank and a 600mL/h powerful humidifier.

Energy Conservation

Energy consumption for regular operation was reduced by 6%. *

*Comparison with EP-AV500, our 2006 product

Uses Recycled Materials

The air purifier uses artificial zeolite made of coal ash resulting from thermal power generation as a deodorant.

Long-Term Usability

Features a detachable water tank, water tray and vapor filter for easy cleaning.



EP-BV60



"Niagara Hot Water," Heated without Water Pressure Reduction Heat Pump Water Heater

Hitachi Eco Cute
Niagara Hot Water

This is a natural refrigerant (CO₂) heat pump water heater that employs a tap water direct pressure method, which does not reduce water pressure when water is heated. With this method, the water heater realizes a powerful shower with 2.9 times more pressure than conventional products. It can also provide about 1.6 times more volume of hot water even when hot water is supplied in two ways.

Energy Conservation

The new heat pump unit employed in this product achieves a 3.3 annual performance factor of hot water supply (APF), which represents about a 6% increase from our conventional products. *

*Comparison with BHP-F37EU

Global Warming Prevention

The natural refrigerant CO₂ with a global warming potential of 1 is used.

Environmental Protection

This heater's noise level is 38dB, the lowest in the industry.



BHP-F37FD



Independent Operation Normally Equipped for All Capacity Models, First in the Industry

Packaged Air Conditioner for Stores

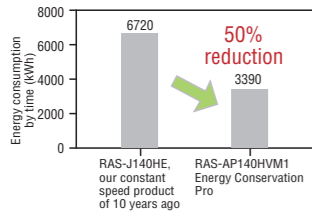
Hi Inverter IVX Series
Energy Conservation Pro

The independent operation series have been expanded to include small capacity models (Models 40 and 60). Spot operation made possible by the independent system saves energy.

Energy Conservation

Energy consumption by time was reduced approximately 50% by improving low speed operation capability of the compressor and optimizing freezing cycle control.

*When Tenkase (Ceiling Cassette) Four Directions (Single type) is connected at 50Hz.



Resource Conservation

Existing piping, breakers, and wiring can be used.



RAS-AP 140 HVM1

Ozone Layer Protection

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



...www.hitachi-ap.co.jp/products/business/ac/office (Only in Japanese)

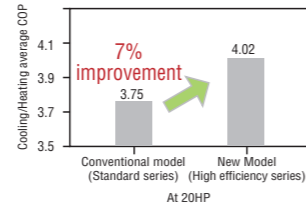
COP*1 14.0 or More of Cooling/Heating Average Achieved by All Models

Multi-Air Conditioner for Buildings

Set Free iZ
High Efficiency GS Series

This multi-air conditioner for buildings has realized high efficiency with a compressor that utilizes a highly efficient MS motor*2 combining a guidance motor and a magnet motor.

*2 MS motor--Magnetic Synchronous motor: self-starting, permanent magnet, synchronized motor



Energy Conservation

Compressor with highly efficient MS motor and double DC fan motor have achieved the top COP level in the industry.



...www.hitachi-ap.co.jp/products/business/ac/building (Only in Japanese)

*1 COP--Coefficient of Performance. Larger figure indicates higher energy efficiency.

Industry's Top-Level COP4.1/3.8 on Cooling/Heating Average

Air-Cooled Heat Pump Type Screw Chiller

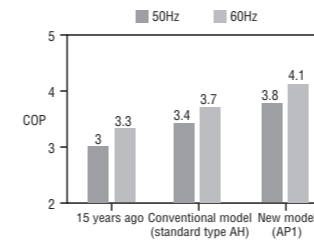
AP1 Series
(High Efficiency Model)

Excellent energy savings have been achieved by employing a larger heat exchanger on the air side, newly-developed fan, optimized freezing cycle and so forth. The air side heat exchanger with purely-air, non-water refrigerant brings about the industry's top COP (Coefficient of Performance).

Energy Conservation

The multi-phased heat exchanger improves heating COP, and realized industry's top COP4.1/3.8.

* (In 100HP 50/60Hz rated operation)



High efficiency (AP1) series



...www.hitachi-ap.co.jp/products/business/ac/chiller (Only in Japanese)

Total System for Stable Temperature Management in Chiller and Freezer

Inverter Scroll Cooling System

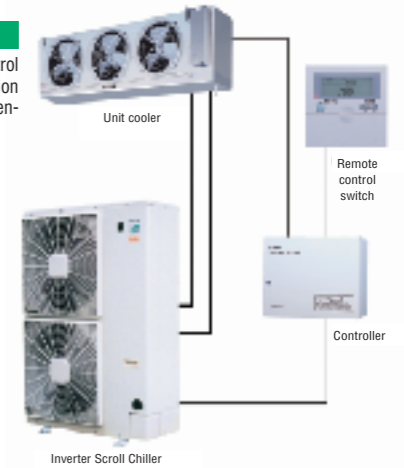
Inverter Scroll Cooling System

This is a systematic cooling device for business food storage chillers and freezers. It is comprised of an inverter scroll chiller, unit cooler, and high performance controller. The optimized control realizes energy conservation and stable temperature management in chillers and freezers.

Energy Conservation

The systematically optimized control function reduces power consumption by 25% compared with our conventional constant speed model.*

* 4.5kW (6HP) Comparison on system basis



...www.hitachi-ap.co.jp/products/business/low/cooling (Only in Japanese)

Reduced Cost and Installment Term by Maximizing Reusable Parts

Packaged Air Conditioner for Equipment

Renewal Pro

The high efficiency inverter scroll compressor used in the inside unit and other measures improve energy saving features. Existing equipment can be used to shorten the term of construction.

Energy Conservation

Approximately 44% of energy consumption was reduced by the high efficiency inverter scroll compressor and other measures.*

*Comparison with RP-AP280RHV, our constant speed 1993 product Comparison with RP-10RHL2 (50Hz)

Resource Conservation

Using side flow and remote control reduces product's weight by approximately 62%.*

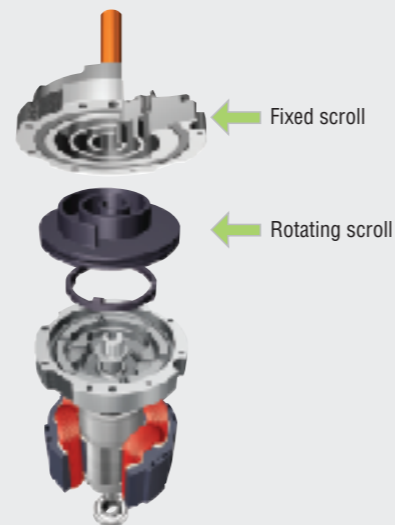
*Comparison with our separate type air cooling heat pump model 280 (10-horsepower equivalent)



...www.hitachi-ap.co.jp/products/business/ac/equipment (Only in Japanese)

Scroll Compressor

Liquid and gas flow from high to low pressure. Making best use of this characteristic, the compressor compresses the refrigerant into high pressure, and then circulates it inside the air conditioner. More efficient compressor increases the cooling/heating capacity of the air conditioner, thereby conserving energy. There are, if broadly categorized, two types of compressors currently available, and the most advanced one is the scroll type compressor, which Hitachi Appliances was the first in the world to use in a packaged air conditioner in 1983. It smoothly rotates 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.



Considerably Improved COP in Winter and Other Seasons, Annual Average COP is 8

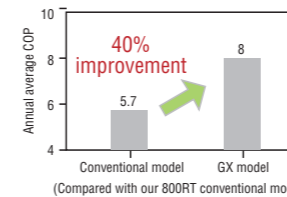
Centrifugal Chiller

HC-F-GX Series
(High Efficiency Model)

This is a centrifugal chiller that achieves compact size and high efficiency simultaneously using technologies such as a high performance heat exchanger and a high efficiency freezing cycle. It received the 25th Superior Energy Saving Machine Prize (Japan Machinery Federation Chairperson's Prize).

Energy Conservation

The "cooling water temperature control free mechanism," which maximizes the change in temperature among seasons, improves the annual average COP by about 40%, and reduces annual energy consumption by about 30%.



Ozone Layer Protection

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



HC-F300GX



...www.hitachi-ap.co.jp/products/ref_index.html (Only in Japanese)

World's Top COP of 1.35

High Efficiency Gas Absorption Chiller-Heater

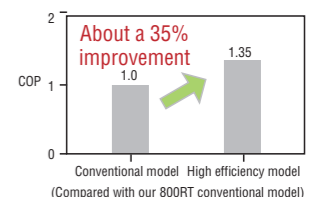
* EXA model (Gas combustion (HHV standard), water refrigerant 15-7°C specification)

EX Series

A two-stage evaporation/absorption cycle, a high performance heat exchanger and other technologies are employed to realize high efficiency and compact size. Space and energy savings for buildings and factories have been realized. The product was selected for absorption green model.*1

Energy Conservation

Technologies including a two-stage evaporation/absorption cycle and a high performance heat exchanger have increased the cooling efficiency by 35% compared with our conventional model.



Environmental Protection

Employing non-fluorocarbon air conditioning that uses water as a refrigerant.



HAU-BGN150EXA

*1 The three municipal gas companies' (Osaka Gas Co., Ltd.; Tokyo Gas Co., Ltd.; and Toho Gas Co., Ltd.) "Absorption type green system" was selected as a product which meets specific standards in terms of energy saving and eco-friendly materials while achieving an environmental impact reduction effect.



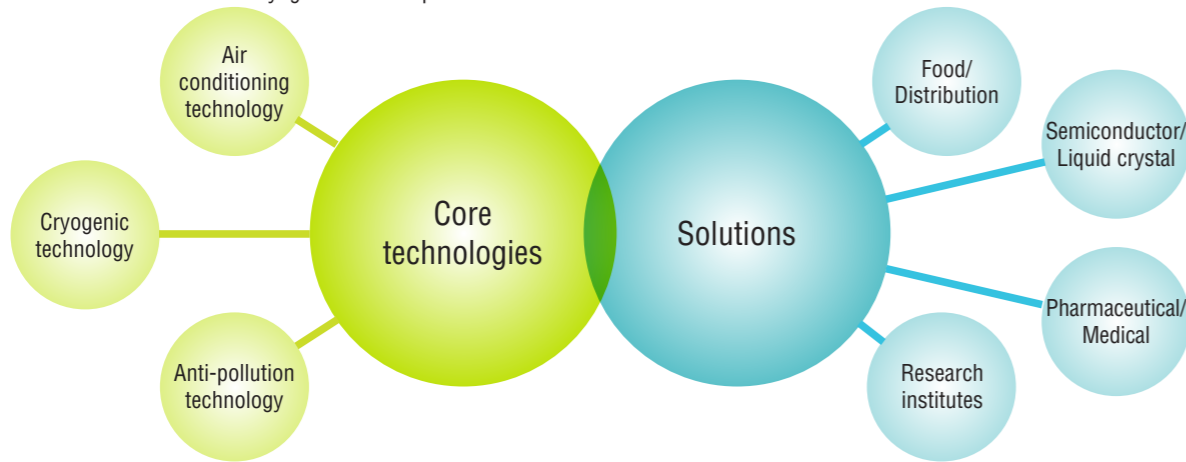
...www.hitachi-ap.co.jp/products/ref_index.html (Only in Japanese)

Cutting-Edge Energy Saving System through Systems Integration

Air Conditioning System Solution

Air Conditioning System Solution

We provide system solutions tailored to individual fields such as food/distribution, semiconductor/liquid crystal, pharmaceutical/medical, and research institutes, based on our core technologies including those of air conditioning, cryogenic and anti-pollution.



Proposed System Featuring Our Highly Efficient Equipment of the Top Level in the Industry

- ▶ Compressor with inverter
- ▶ Highly energy-efficient equipment

Proposed Comprehensive Energy Saving System

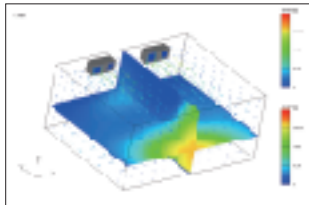
- ▶ Operation control optimization
- ▶ Waste thermal and water use
- ▶ Natural energy use

Proposed Reliable Renovation

- ▶ Initial running cost reduction
- ▶ Elaborate on-site survey and execution plan
- ▶ Measures to address impacts on existing production lines

Proposed Energy Saving Refrigerator/Freezer Warehouse Utilizing Ice Thermal Storage

- ▶ Introduction of liquefaction cooling, ice thermal storage facility in refrigeration/freezing warehouse
- ▶ Electricity reduction (about 15% reduction)
- ▶ Running cost reduction



Study on comfortable air conditioning using air flow simulation



Laminar flow type clean room facility



HACCP* clean room facility



Ice thermal storage facility

* HACCP (Hazard Analysis and Critical Control Point): Food hygiene and safety management system based on the concept of hazard analysis and critical control point.

Award for Excellent Company Promoting Product Safety



We received the gold prize in the "large manufacturer and importer category" of the "First (FY2007) Excellent Company Promoting Product Safety: Economy, Trade and Industry Minister Award." The award is given by the Minister of Economy, Trade and Industry to companies whose active, voluntary efforts for product safety are highly praised by consumers.

"Otoko-no Kaji Kentei (Housekeeping Exam for Men)"

On our home appliances website, you can take the "Otoko-no Kaji Kentei (Housekeeping Exam for Men)," and learn "housekeeping now" from trivia and know-how about housekeeping including cleaning, washing and cooking to the newest trends in home appliances. Recently, we have started the environment edition of the exam, which clearly and easily teaches energy saving housekeeping concepts, the latest energy saving appliances, and so forth.



Otoko-no Kaji Kentei (Housekeeping Exam for Men) website: <http://kadenfan.hitachi.co.jp/kajikentei> (Only in Japanese)

"Kaji Kentei" is a registered trademark (No.4901779) of SHUFO-TOSEIKATSU SHA LTD.

FY2007 Action Plan and Achievements

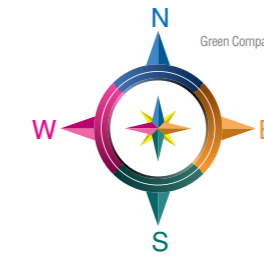
The planned actions and actual results for each item of the FY2007 Action Plan are compared with the targets. Targets for FY2010 have been set based on the Hitachi Group's "Stage 2 Environmental Strategy."

Eco-Mind & Global Environmental Management

We will create an advanced eco-mind and the power to transform ideas into action, and build/operate a global management and evaluation system.

Next-Generation Products & Services

We will continue to achieve innovations for highly competitive products and services that will contribute to the realization of a sustainable society, and deploy new business models accordingly.



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.

○ : Attained
△ : Improvement effort required

Category/item	Action plan	FY2007 target	FY2007 results	Achievement level	FY2010 target
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Eco-Mind & Global Environmental Management

Activity	Increase GP (Green Points) in the "GREEN 21" Activity	768GP	952GP	○	1280GP
Education	Increase the percentage of recipients for the Hitachi Group standard education (environmental e-learning)	55%	94%	○	90%

Next-Generation Products & Services (Providing Eco-Friendly Products)

Products	Expand eco-products (Registration ratio)	Home appliances	85%	98%	○	100%	
		Commercial use air conditioners	70%	72%	○	75%	
	Develop super eco-products		One product registration	10 products, 38 models registered		○	One product registration
	Increase recycled plastic use ratio (basis: FY2000)		10% increase	10% increased		○	20% increase

Super Eco-Factories & Offices (Eco-Conscious Works) [Japan]

Prevention of Global Warming	Reduce CO ₂ emissions in production (basis: FY1990)	7% reduction	48% reduced	○	7% reduction
	Reduce transportation energy basic unit (basis: FY2006)	1% reduction	2% reduced	○	4% reduction
Effective use of resources	Reduce waste generated from factories (basis: FY2000)	14% reduction	17% reduced	○	20% reduction
Chemical substances management	Reduce VOC*2 atmospheric emissions from factories (basis: FY2000)	42% reduction	69% reduced	○	45% reduction

Worldwide Environmental Partnerships (Communication with Stakeholders, Social Action Program)

Environmental communication	Pursue communication with our stakeholders (customers, administrative authorities, shareholders, business partners, citizens)	-	● Exhibition participation ● Expansion of appeal of "Keeping on Hitachi" on our website	○	-
Global citizen activities	Promote social action program by, for example, planning volunteer activities and encouraging employees to actively participate in community volunteer activities	-	● Promotion of the team minus 6% activities ● Interaction with local citizens, clean-up activities, factory tours by elementary schools	○	-

*1 Hitachi Group's standard self-evaluation system developed for continuous efforts and improvement in environmental activities

*2 VOC...Volatile Organic Compounds, a general term for highly evaporative organic compounds such as toluene and xylene

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."

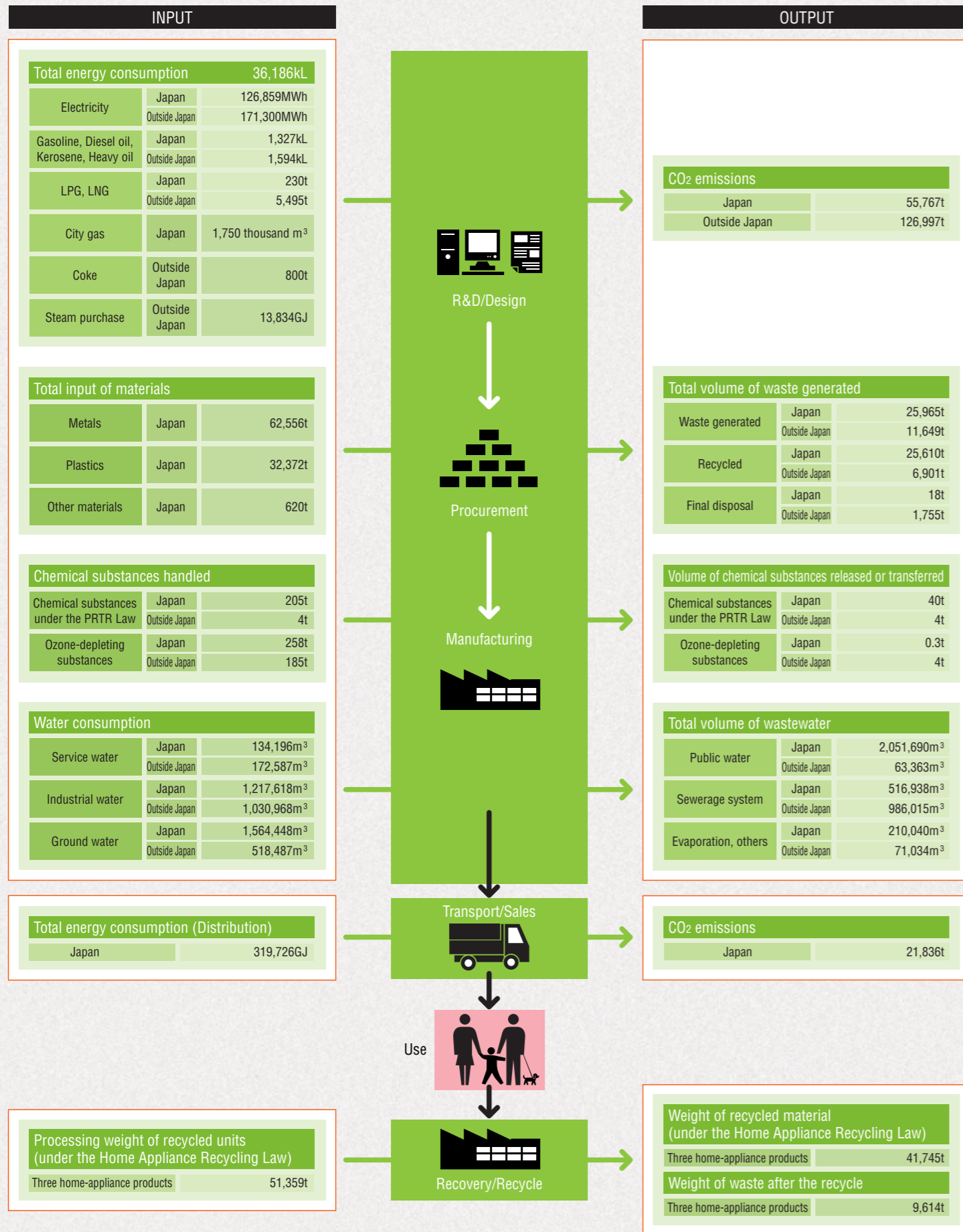
Purpose
In order to realize an environmentally harmonious and sustainable society through products and services, Hitachi Appliances is committed to fulfilling its social responsibilities by promoting globally-applicable "MONOZUKURI" (designing, manufacturing, or repairing of products), which is aimed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

Action Guidelines

- 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.
- 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.
- 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.
- Hitachi Appliances will promote globally-applicable "MONOZUKURI" with the aim of reducing environmental burden at every stage, including product research and development, design, production, distribution, sales, usage, and final disposal.
- Hitachi Appliances will investigate and review the environmental impact caused over 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.
- Hitachi Appliances' environmental conservation efforts are not to be exclusively 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.
- 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.
- 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.
- Hitachi Appliances will evaluate potential environmental issues and do its utmost to prevent them. In the event that an environmental incident occurs, Hitachi Appliances will take appropriate measures to minimize the impact on the environment.
- Hitachi Appliances will make efforts to disclose information on its environmental conservation activities to the relevant stakeholders. Hitachi Appliances will also actively communicate with these stakeholders so as to strengthen mutual understanding and forge cooperative relationships with them.

Environmental Impact by Business Activity (FY2007)

This shows the FY2007 data for the amount of resources input and the environmental load generated by the business activities of Hitachi Appliances.



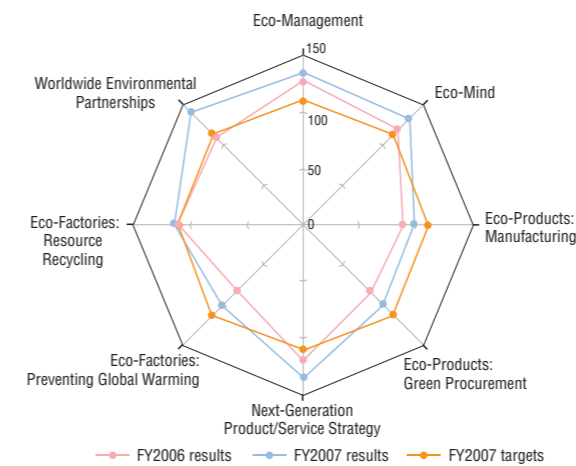
Eco-Mind & Global Environmental Management

If environmental activities are to achieve a firm objective, it is essential to establish more concrete and effective targets. By setting up an eco-management system and fostering eco-consciousness among individual workers in their respective positions, workers can be motivated to pursue more positive actions, paving the way for substantial achievements.

GREEN 21 Activities

The Hitachi Group evaluation system GREEN 21 assesses a roadmap to the target achievement year, the content of targets, and the progress of continuous efforts and improvements in environmental activities. The status of activities is evaluated on a scale of 0 to 5, with Level 4 designated as the target level for FY2010 in the Hitachi Group Environmental Activities Plan. The evaluation for FY2007 was scored as 955GPs (Green Points), which exceeds the 896GPs target.

Green Point Average: Results and Targets



Evaluation items (8 categories/56 performance indicators)

Category	Main contents of evaluation
Eco-Management	Action plan, environmental accounting, risk management
Eco-Mind	Employee training and education
Eco-Products: Manufacturing	Eco design management system, eco products, management of product chemical content
Eco-Products: Green Procurement	Green procurement, green purchases
Next-Generation Product/Service Strategy	Business and product strategy, sustainable business, publicity
Eco-Factories: Reducing Global Warming	Energy saving at production factories, environmentally responsible distribution
Eco-Factories: Resource Recycling	Waste reduction, chemical substance management
Worldwide Environmental Partnerships	Information disclosure, communication, global citizen activities

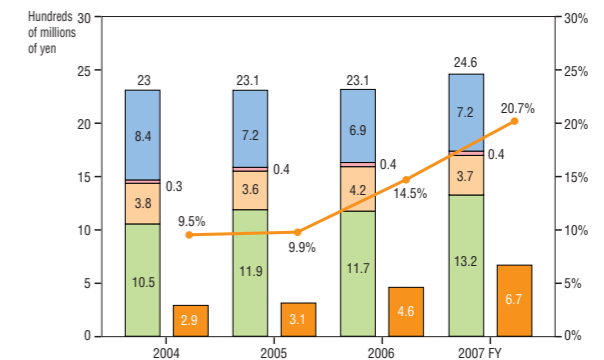
Environmental Accounting

Recognizing environmental activities as one of the key elements of our management, we introduced an environmental accounting system in FY2001. We disclose the cost of environment preservation activities, and the economic and physical effects in the form of environmental management information. We aim to let others gain an understanding of our perspective toward the environment.

In FY2007, expenses were about ¥2.5 billion, which represented a 6.2% increase over the previous year. Approximately 54% of these expenses were "research and development costs" to reduce the environmental impact of our products.

The economic effect of energy-saving and resource-saving was about ¥0.7 billion, or equivalent to 20.7% of the expenses, which was a 45.6% increase over the previous year.

Change in Cost and Effect



Category	Main contents of evaluation
Economic effect	Business area cost, Environmental remediation cost, Upstream/downstream cost, Social activity cost, Administration cost, Research and development cost
Percentage of economic effect accounted for by cost	

Costs

Cost	Business area cost	Environmental impact reduction facilities maintenance/management cost, depreciation cost
Upstream/downstream cost	Green procurement cost, product & packaging recovery/recycling cost, recycling cost	
Administration cost	Environmental management labor cost, environmental management system	
Research and development cost	Product/manufacturing process, environmental impact reduction research & development and product design cost	
Social activities cost	Greening/beautification and other environmental improvement, PR/publicity cost	
Environmental remediation cost	Environment-related measures and contribution charges	



Next-Generation Products and Services

To reduce the environmental impact at each stage of the product lifecycle, Hitachi Appliances is actively taking measures such as energy saving, efficient utilization of resources, chemical substances reduction, and conversion to new refrigerants that have an ozone depletion potential of zero.



Development of Eco-Products

The Assessment for DfE (Design for Environment) is incorporated into product development to reduce the environmental impact at each stage of the "product lifecycle" from resource mining to disposal and recycling.

Improvements to existing models for a total of eight criteria including resource reduction, product longevity, resource recycling and ease of decomposition are assessed, and products that meet the standard are designated as "Eco-Products." In FY2007, 14 products comprising 201 models were designed as "Eco-Products," which accounts for 95% of the total number of registered products.

In addition, we are expanding "Super Eco-Products," which are designated from among the "Eco-Products" when they meet at least one of the following criteria: (1) their "Environmental Efficiency"—an indicator for added value of products and services based on a reduction in greenhouse gas emissions and resource consumption—is at least 10-times that of conventional products; (2) they have the top environmental performance in the industry; (3) they are highly regarded among external independent evaluators. In FY2007, 10 products comprising 38 models including refrigerator, air conditioner, washer-dryer, vacuum cleaner and chiller unit were designated as "Super Eco-Products."



...www.hitachi.com/environment/activities/ecoproducts.html



Distribution of Environmentally Conscious Product Information

Hitachi Appliances provides information on specific environmentally conscious points along with the eco marks in media such as home appliances catalogs and websites for easy-to-understand environmental information relating to Eco-Products. This promotes greater customer understanding of the environmentally conscious measures that have been taken for the product.

Example of environmental information in a catalog (washing machine)



Environmentally Conscious Points

- Uses electroplated steel sheet containing no chromium compounds.
- Recycled plastic is used in the outer tank, etc.
- Lead-free solder is used in the printed circuit board.

Example of environmental information in "Environmental Efforts" of our website

- List of Eco-Products
- Examples of environmentally conscious points
- List of products with J-Moss Green Mark



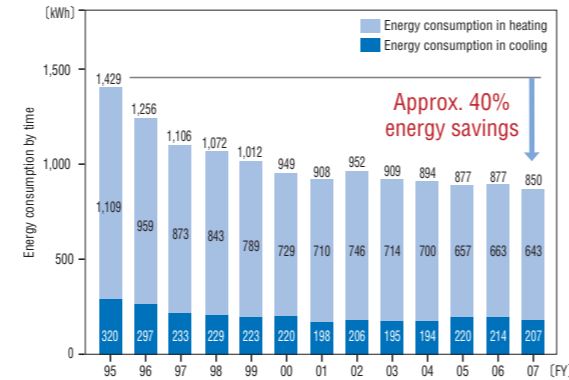
Energy Conservation Activities

Given 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 energy consumption of products during operation and in standby. These activities include the development of many energy saving technologies, such as "PAM control," "high efficiency compressors," and "vacuum insulation panel" used in refrigerators and air conditioners to achieve energy conservation performance that is at the top level of the industry.

The current energy-saving air conditioner of the 2.8kW class has reduced energy consumption by about 40% compared with our conventional model 12 years ago.

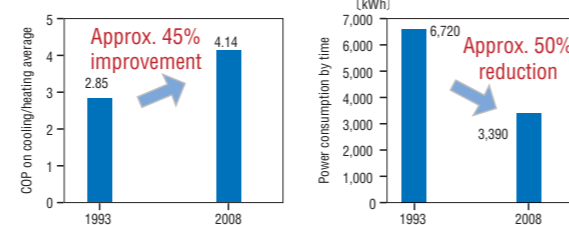
Energy savings in room air conditioners

Typical energy saving model (for both cooling and heating, wall-hung type, 2.8kW class)



As for packaged air conditioners for stores and offices, various technologies have been introduced for energy savings. In the 1990s, compressors and heat exchangers were made more efficient. In the 2000s, inverters were built-in compressor operation, and the electric current for compressors and fan motors was changed to direct current. As a result, compared with our products 15 years ago, COP on cooling/heating average has improved by about 45%, and energy consumption by time has been reduced by about 50% (in case of RCI-AP140HVM1 with 5HP equivalent ceiling cassette).

Energy savings in packaged air conditioners for stores and offices



Management of Product Chemical Content and J-Moss Compliance

Hitachi Appliances has formulated "Environmental CSR Compliant Monozukuri Standards," and designated 13 prohibited substances^{*1} and 12 controlled substances^{*2} to be regulated. A survey is conducted on procured materials for production, from components of a product to onsite materials that might be mixed into a product, to determine the existence and amount of the designated substances. The survey data is managed centrally in an onsite database and shared.

*1 13 prohibited substances
 ① Cadmium ② Hexavalent chromium ③ Lead ④ Mercury ⑤ TBTO ⑥ PBB ⑦ PBDE ⑧ PCB ⑨ Polychlorinated naphthalene ⑩ Short chain chlorinated paraffin ⑪ Asbestos ⑫ Azo dyes & pigments ⑬ Ozone layer depleting substances (Class I)
 *2 12 controlled substances
 ① Antimony ② Arsenic ③ Beryllium ④ Bismuth ⑤ Nickel ⑥ Selenium ⑦ Bromic flame retarders ⑧ PVC ⑨ Phthalate ester ⑩ TBT & TPT ⑪ Ozone layer depleting substances (Class II) ⑫ Radioactive material

In compliance with J-Moss^{*3} which requires the management and information disclosure of six chemical substances—namely, lead, mercury, cadmium, hexavalent chromium, PBB (polybromobiphenyl) and PBDE (polybromodiphenyl ether)—the replacement of the six chemical substances has been undertaken, and the "J-Moss Green Mark" has been labeled on refrigerators, air conditioners, washing machines, clothes dryers and microwave ovens. Our response to the J-Moss Green Mark is disclosed on our website.



*3 J-Moss
 JIS C 0950 "The marking of presence of the specific chemical substances for electrical and electronic equipment"
 The ministry-level ordinance to implement the Law for the Promotion of Effective Utilization of Resources obliges its labeling.



...www.hitachi-ap.co.jp/company/environment/kankyojmoss
 (Only in Japanese)

Example of environmental information on the website (refrigerator)

型番	R-30000	R-SP8000E	R-SP3500M	R-1P500GE	R-SP452M	R-5400M
省エネルギー	○	○	○	○	○	○
省資源	○	○	○	○	○	○
省電	○	○	○	○	○	○
省水	○	○	○	○	○	○
省材	○	○	○	○	○	○
省廃棄物	○	○	○	○	○	○
省CO2	○	○	○	○	○	○
省環境負荷	○	○	○	○	○	○

型番	省電	省水	省材	省廃棄物	省CO2	省環境負荷
省電	○	○	○	○	○	○
省水	○	○	○	○	○	○
省材	○	○	○	○	○	○
省廃棄物	○	○	○	○	○	○
省CO2	○	○	○	○	○	○
省環境負荷	○	○	○	○	○	○



Activities to Protect the Ozone Layer and Prevent Global Warming

The refrigerant used in air conditioning products has been converted from HCFC (hydrochlorofluorocarbon) refrigerants, which destroy the ozone layer, to HFC (hydrofluorocarbon) refrigerants, which have an ozone depletion potential of zero. In refrigerators, the Company has converted to using the non-fluorocarbon refrigerant R-600a (isobutane), which has a global warming potential of 3, and non-fluorocarbon refrigerant is applied to all units produced domestically. In addition, the Company has switched to using the natural refrigerant CO₂, which has a global warming potential of 1, in heat pump water heaters, and is broadening this lineup.



Resource Conservation in Product Use

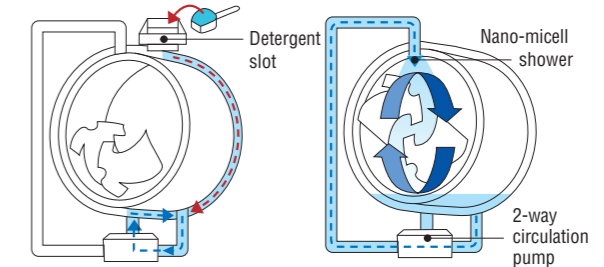
Recognizing that energy is consumed to produce the tap water we use in our homes, Hitachi Appliances is working to conserve water while washing clothes.

In addition to the water saving technologies such as the "bathwater pump" that uses residual bath water in washing and stepless water level function, the "Beat Wash" water-saving type washer-dryer that uses our unique beat washing and high density detergent recycling system went on sale in 2004, and the bathwater pumping function was modified to cover the drying process in 2006.

In 2007, we developed the "two-way circulation pump" and the "nano-micell shower" employed in the drum type washer-dryer BD-V2, which reduced detergent use by about 40% and tap water use by about 90% compared with our model in 2002.

2-way circulation pump

1. Dissolve detergent well
2. Even distribution of detergent



Recycling of Home Appliances

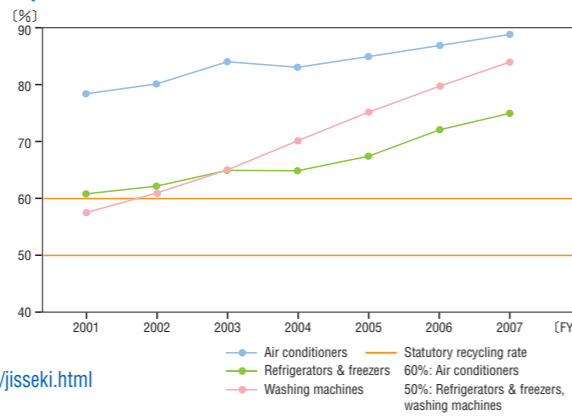
The Home Appliance Recycling Law (Law for Recycling of Specified Kinds of Home Appliances) was put into effect in April 2001. Hitachi Appliances established the Kanto Eco Recycling Co., Ltd., a home appliance recycling plant within Tochigi Works, and has been recycling the specified four kinds of used home appliances. This is the only recycling plant in the country that is integrated with a manufacturing plant, and the processing know-how obtained from this plant is incorporated into the production process, for example, in the design of products that are easily dismantled and separated. In FY2007, we recycled 51,359 tons in total of three specific home appliance products excluding CRT televisions, resulting in an 81% product recycling rate.

WEB www.hitachi-ap.co.jp/company/environment/kankyo/recycle_kaden/jisseki.html
(Only in Japanese)

FY2007 recycling results for 3 used home appliance products

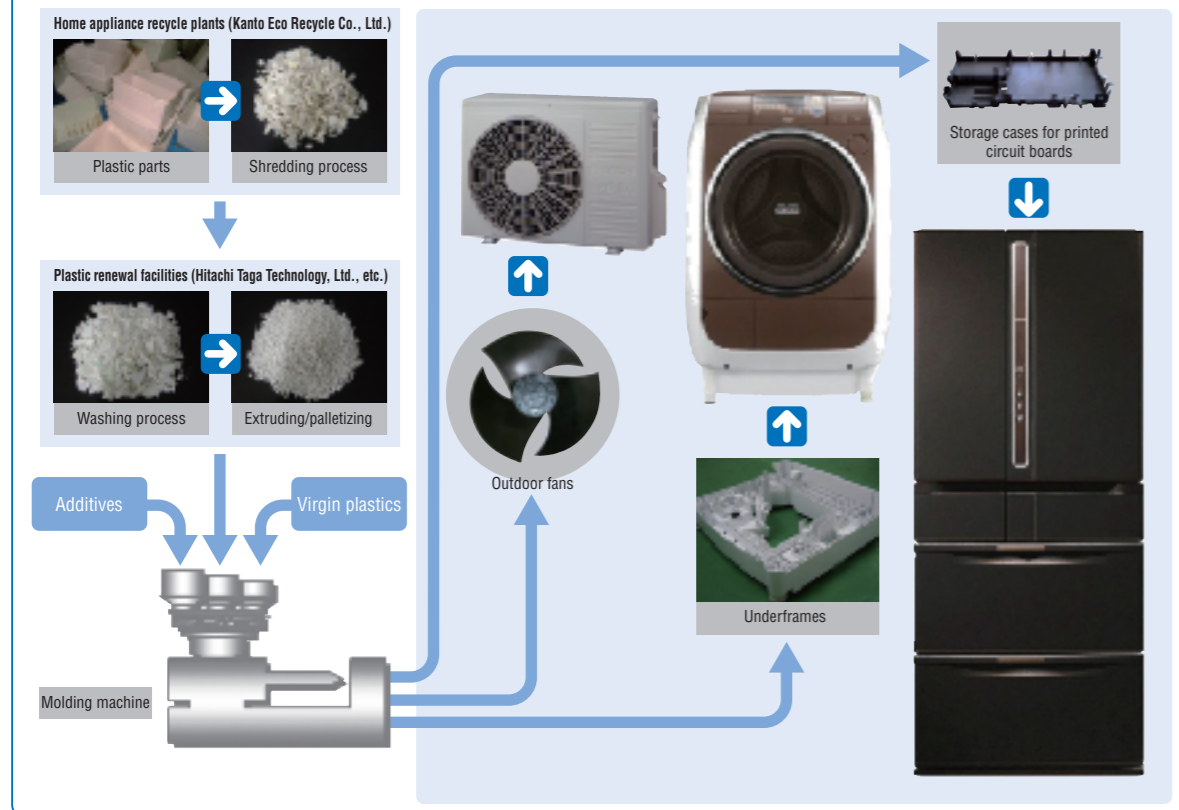
Item	Air conditioners	Refrigerators & freezers	Washing machines
Number of units recycled (units)	208,271	386,755	641,810
Processing weight of recycled units (t)	8,610	22,187	20,560
Weight of recycled material (t)	7,732	16,654	17,358
Recycling rate (%)	89	75	84

Changes in the recycling rate of 3 used home appliance products



Closed-loop Recycling of Plastics

The plastic surfaces of used home appliances are often in poor condition due to usage. We have established technologies to improve the quality of used plastics through blending virgin plastic, ultraviolet [UV] absorber for weather resistance improvement, antioxidant for heat resistance improvement and color pigment, and constructed a renewal facility at Hitachi Taga Technology, Ltd. within Taga Works. In the renewal process, we select a tensile elongation trait, one of the most affected mechanical traits of plastics, as a criterion. The "closed-loop recycling," which reuses plastics collected at home appliance recycle plants for underframes of washing machines and other purposes, has been in operation since 2002, and we are expanding its coverage; 1,160 tons were recycled in FY2007.



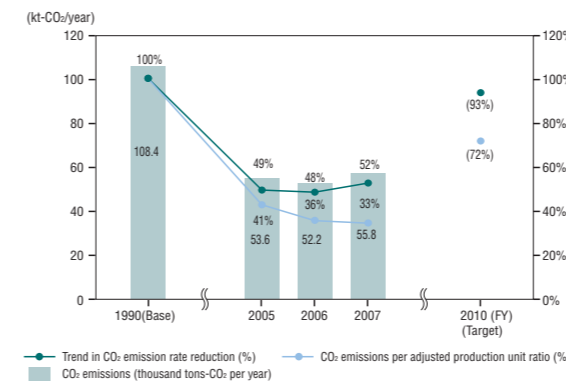
Super Eco-Factories & Offices

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, and other environment preservation measures.

Global Warming Prevention

To achieve Japan's target under the Kyoto Protocol to reduce CO₂ emissions by 6% (compared with 1990 levels), we have identified two targets for CO₂ reduction. One is a 7% CO₂ reduction (compared with 1990 levels) by FY2010, and the other is the target set forth in the voluntary action plan of the four electrical and electronics-related associations. In FY2007, although production increased, we still achieved a CO₂ emissions reduction of 48.5% compared with 1990 levels. CO₂ emissions per adjusted production unit were reduced by 67% compared with 1990 levels, an improvement of 3% from FY2005 (base year: 1990).

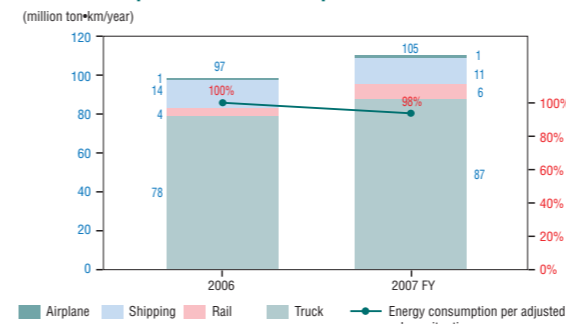
Trend in CO₂ emissions in Japan



Boosting Transportation Efficiency

As the designated shippers of the Amended Energy Conservation Law enacted in April 2006, we are pursuing CO₂ emissions reductions in transportation by increasing the loading effectiveness, implementing a modal shift to rail transport³ and other measures. Although the transport amount for FY2007 was about 8% more than FY2006 due to increased production, energy consumption per adjusted sales unit improved by about 2%.

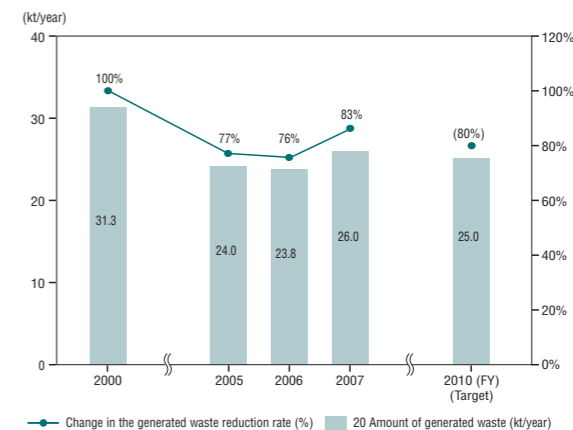
Total transported amount in Japan



Efficient Utilization of Resources

The Company is working toward the target of a 20% reduction over the FY2000 level by FY2010, by pursuing efficiency of resources and an elimination of unnecessary waste during the production process. In FY2007, the total generated amount was a 17% reduction from FY2000.

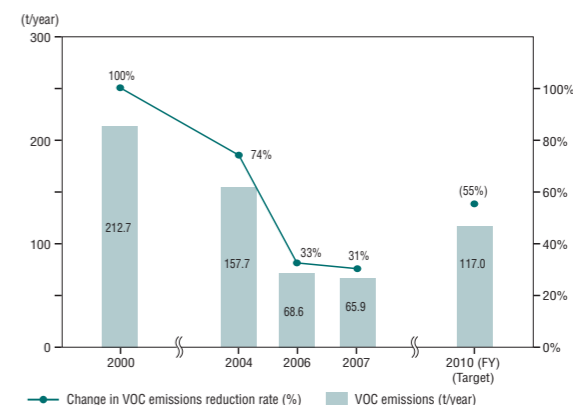
Trend in the waste generated in Japan



Management of Chemicals

With the enactment of the Amended Air Pollution Control Act in April 2005, Hitachi Appliances proactively and voluntarily selected 41 types (xylene, toluene, methanol, etc.) of VOC, and has been working toward a 45% reduction of their emissions by FY2010 (compared with FY2000). In FY2007, a 69% reduction from the FY2000 value was achieved.

Trend in VOC emissions in Japan



*1 Zero emission-- Approach to reduce the final disposal amount to zero by using waste as separate industrial raw material
Hitachi definition: Current year's final disposal rate of 1% or less and final disposal amount up to 5t
*2 (adjusted production) = (nominal production)/(Bank of Japan's Domestic Corporate Goods Price Index: Electric and Electronic Products)
*3 Modal shift-- Shift in artery cargo transportation from truck to rail/ship, which is eco-friendly and has larger capacity
*4 VOC-- Volatile Organic Compounds

Environmental Report
Next-Generation Products and Services



Environmental Report
Super Eco-Factories & Offices



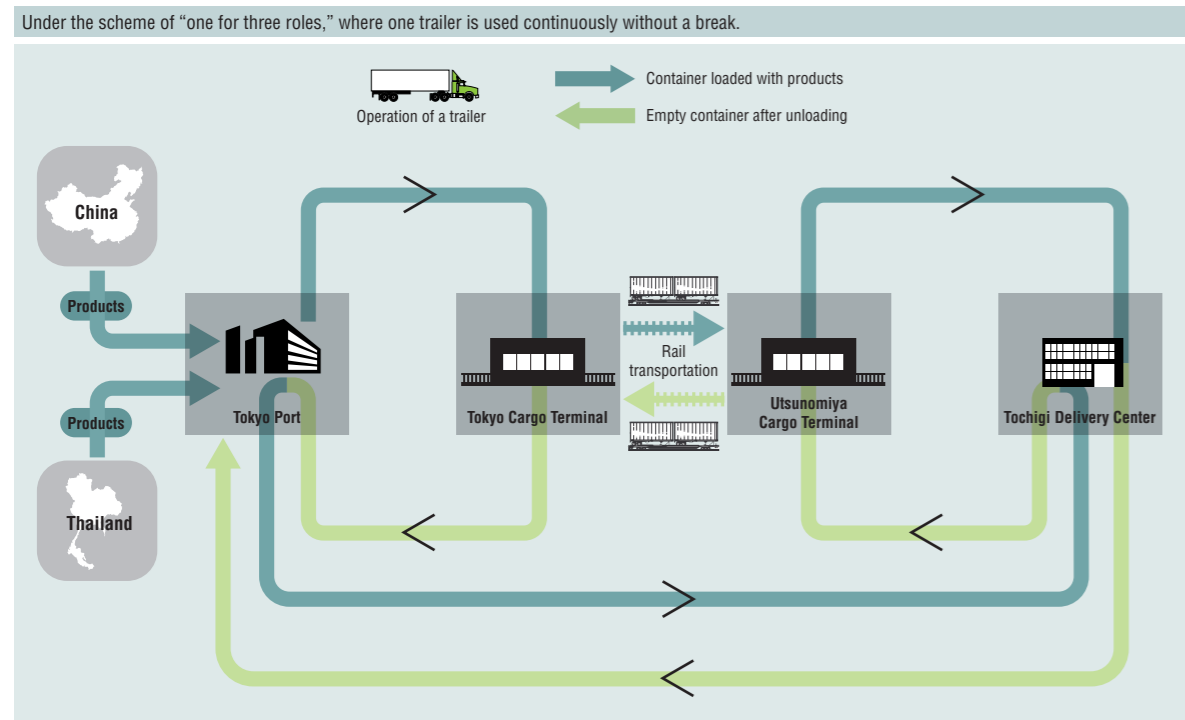
Modal Shift

In order to reduce CO₂ emissions during product transportation, we have partially shifted our transport method from truck to rail/ship. Rail/ship has a larger capacity, and the energy consumption of rail/ship

transportation is smaller than that of truck transportation (about one-eighth for rail, about one-fourth for ship). However, on the other hand, rail/ship transportation has to be accompanied by terminal truck transportation, which requires trans-shipment. As such, we are combining these transport instruments in order to maximize the total energy saving.

Japanese Business Activities

Example 1 Medium range modal shift of 40 foot marine containers (trailer & rail)
 Tokyo Port (Oi/Aomi Container Berth) – Tochigi Distribution Center
 CO₂ emission reduction: Approx. 800 tons per year



Transporter: Hitachi Transport System, Ltd., Japan Freight Railway Company

Example 2 Medium range modal shift of 20/40 foot containers mixed (trailer & rail)
 Tokyo Port (Oi/Aomi Container Berth) – Tochigi Distribution Center
 CO₂ emission reduction: Approx. 60 tons per year

The trailer chassis that is also used in Example 1 above is modified to fit both 20 foot and 40 foot containers, thereby improving efficiency. (FY 2007 Green Logistics Partnership Promotion Program)

Transporter: Hitachi Transport System, Ltd., Japan Freight Railway Company

Example 3 Long range modal shift (rail)
 Tochigi Works – Hiroshima/Fukuoka Distribution Center
 CO₂ emission reduction: 1,590 tons per year

Products are transported in 5 ton containers, by rail between Utsunomiya Cargo Terminal and Hiroshima or Fukuoka Cargo Terminal. Racks to carry three, 5 ton containers at once have been introduced to 40 foot marine container trailers used for transportation to and from the cargo stations. (Project certified in "FY2003 Demonstrative Test toward Transportation System with Less Environmental Load" by the Ministry of Land, Infrastructure, Transport and Tourism)

Transporter: Hitachi Transport System, Ltd., Japan Freight Railway Company

Example 4 Long range modal shift (rail)
 Tochigi Works/Taga Works – Osaka/Fukuoka/Hokkaido Distribution Center
 CO₂ emission reduction: 400 tons per year

Rail transport with 31 foot containers, using the "Super Green Shuttle" train of Japan Freight Railway Company between Tokyo Cargo Terminal and Ajikawaguchi Station, between Tokyo Cargo Terminal and Fukuoka Cargo Terminal, as well as between Sumidagawa Station and Sapporo Cargo Terminal.

Transporter: Oji Transportation Co., Ltd., Japan Freight Railway Company

Environmental Collaboration with Stakeholders

Hitachi aims to work together with customers, local communities, suppliers, employees, and other stakeholders to "create a sustainable society," and is providing information and holding dialogue in a variety of forms to this end.

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 more than 40 years since 1965.

In addition, headquarters holds environment classes for elementary and junior high school students, where participants study such topics as the global warming problem and the environmentally conscious aspects of the Company's products, to promote environment-related discussion across generations.

We are also making efforts to bring up competitive overseas environmental protection industries. For example, at the Taipei World Trade Center Exhibition Hall of Taiwan, we organized the "2007 Meeting on Technologies for Environmental Protection Products" and the "2007 Taipei International Energy, Environmental Protection and Water Show 2007," where Hitachi Appliances demonstrated its products and held seminars.

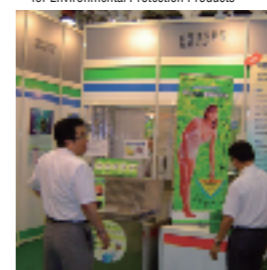
Environmental classes for elementary and junior high school students



Cleanup activities around the works



Exhibition at the 2007 Meeting on Technologies for Environmental Protection Products



Seminar at the 2007 Meeting on Technologies for Environmental Protection Products



Participation in Exhibitions

Eco Products International Fair 2008 (March 2008)



Location: National Convention Center, Vietnam

Eco Products 2007 (December 2007)



Location: Tokyo Big Sight

HVAC&R Japan 2008 (February 2008)



Location: Tokyo Big Sight

ENEX2008 (Energy & Environment Exhibition 2008) (January 2008)



Location: Tokyo Big Sight

www.hitachi-ap.co.jp/company/environment/kankyo/activity/exhibition.html (Only in Japanese)

Awards Received

Award name		Award-winning product	Month and year of award
Energy Conservation Grand Prize for Excellent Energy Conservation Equipment	Chairman Prize of ECCJ	Freezer Refrigerator "Vacuum Chilled to Keep Foods Fresh," "Middle-Positioned Freezer" series (eight models including R-X6000)	January 2008 (18th)
	Chairman Prize of ECCJ	Room Air Conditioner "Mist Deodorizing, Stainless Steel Clean Shirokumakun" (four models including RAS-S40X2)	January 2008 (18th)
2007 Shougakukan DIME Trend Prize	"Lifestyle/Health category" Category Prize	Drum-Type Washer-Dryer "Big Drum with Wind Iron"	November 2007
2007 Nikkei Superior Product and Service Prize	Prize for Excellency, Nikkei Business Daily Prize	Drum-Type Washer-Dryer "Big Drum"	February 2008

[Energy Conservation Grand Prize for Excellent Energy Conservation Equipment] (Sponsor: Ministry of Economy, Trade and Industry, Organizer: The Energy Conservation Center, Japan Trade and Industry) Honors equipment and systems for living (including parts and materials) with excellent energy saving performance.
 [Energy Conservation Grand Prize for Excellent Energy Conservation Equipment] (Sponsor: Ministry of Economy, Trade and Industry, Organizer: The Energy Conservation Center, Japan Trade and Industry) Honors equipment and systems for living (including parts and materials) with excellent energy saving performance.
 [Nikkei Superior Product and Service Prize] (Sponsor: Nikkei Inc.) Honors annually superior new products and services of the year

www.hitachi-ap.co.jp/company/environment/kankyo/activity/commendation.html (Only in Japanese)

Environmental Report
 Super Eco-Factories & Offices



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