

ECO

Mitsubishi Electric
Group Environmental
Sustainability Report

2008

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Message

Reducing CO₂ Emissions from Product Usage

Reducing CO₂ Emissions in Production

Product 3Rs / Zero Emissions from Manufacturing

Ensuring Harmony with Nature and Fostering
Environmental Awareness

Examples of Overseas Activities



Environmental Vision 2021



Guided by our commitment to make positive contributions to the Earth and its people through technology and action, we will help bring about a sustainable society through our business activities by promoting a wide range of distinctive, advanced technologies and proactive, ongoing actions by our employees.

P r e s i d e n t ' s M e s s a g e

Sharing this Irreplaceable Earth with Future Generations



Environmental problems are a major issue for the international community and require urgent action. We must absolutely avoid engaging in actions today that leave negative legacies for future generations, and we must recognize that we share the environment with all people who will be alive in the future.

At the same time, when companies engage in business activities they inevitably impact the environment in some way, such as expending energy through the consumption of resources and moving people from place to place. Minimizing this impact to the extent possible should be considered one of the duties of anyone who engages in business. As a company with world-class technological capabilities, Mitsubishi Electric has the added responsibility of making positive contributions to society by demonstrating worldwide leadership in environmental technology.

The Mitsubishi Electric Group established its Environmental Vision 2021 in October 2007. The target year for this vision is 2021, the year we will celebrate our 100th anniversary. By continuing to improve our products and reduce the environmental impact of our business activities in line with this vision, we intend to create more products that benefit the environment while fulfilling our responsibilities to the Earth and future generations.

The Goals of Environmental Vision 2021

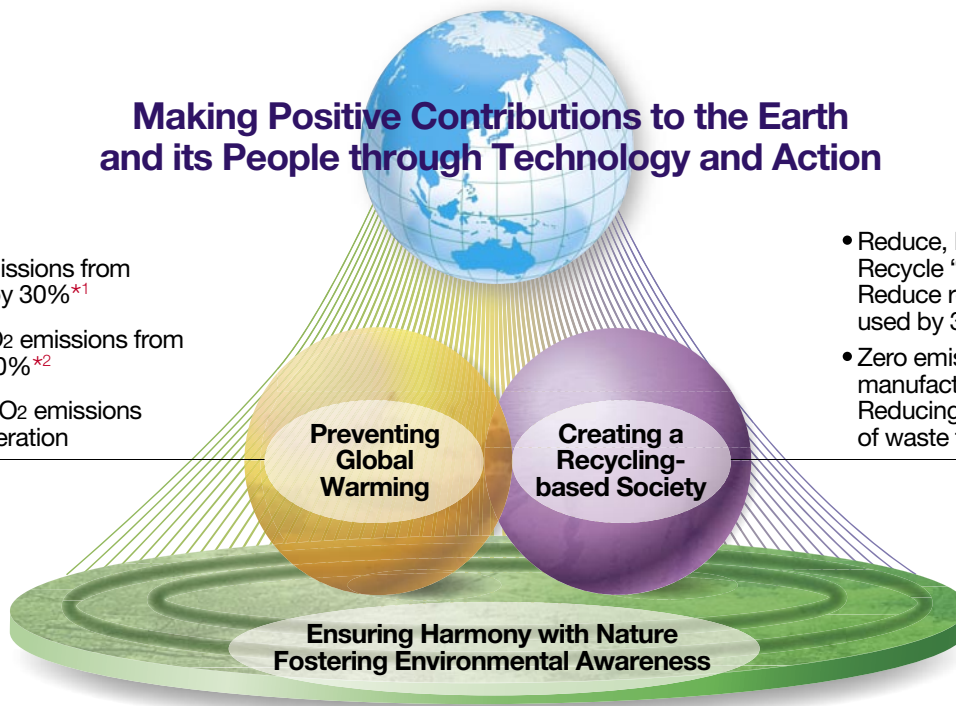
Environmental Vision 2021 reveals our commitment to not only lowering the environmental impact of business activities, by reducing carbon dioxide emissions from production, for example, but also help bring about a sustainable society through products and technologies that lead directly to environmental protection and energy conservation. Such products include energy-saving type key devices, factory automation equipment that helps factories save energy and raise production efficiency, products that help reduce carbon dioxide emissions in power generation, and recycling systems for various products. The range of our potential contribution is quite broad.

In the past, I was involved in the development of electric power steering for automobiles. Electric power steering is a key component for helping automobiles to save energy, because its energy efficiency is higher than that of hydraulic power steering, which was the mainstream at the time. Then in 1988 we became the first company in the world to successfully mass-produce electric power steering. The units were expensive and could not possibly contend with hydraulic steering in terms of cost but, with further improvements, we succeeded in bringing costs down and have now manufactured over 30 million of the units.

Making Positive Contributions to the Earth and its People through Technology and Action

- Reduce CO₂ emissions from product usage by 30%^{*1}
- Reduce total CO₂ emissions from production by 30%^{*2}
- Aim to reduce CO₂ emissions from power generation

- Reduce, Reuse and Recycle “3Rs” products Reduce resources used by 30%^{*1}
- Zero emissions from manufacturing Reducing the direct landfill of waste to zero



*1 Base year: fiscal 2001

*2 Mitsubishi Electric Corporation (Base year fiscal 1991) Subsidiaries and affiliates (Japan) (Base year fiscal 2001) Subsidiaries and affiliates (Overseas) (Base year fiscal 2006)

Electric power steering has made a significant contribution to the energy-saving efforts of the automobile industry.

Sow the seeds of technologies in a variety of areas and foster the environmental improvements that sprout from them: I firmly believe that the repetition of this process is essential to efforts to bring about a sustainable society.

In addition to reducing carbon dioxide emissions, Environmental Vision 2021 also promotes the 3Rs (Reduce, Reuse, Recycle). Promoting the 3Rs from a variety of perspectives leads directly to effective resource utilization and reduced energy usage while also helping to prevent global warming. The 3Rs tend to be understood in the narrow sense as environmental measures to reduce waste, but they actually should be recognized as essentially connected to the problem of global warming.

I think we need to take another close look at the effectiveness of the 3Rs and take serious action, while also not forgetting the importance of making products lighter and minimizing material usage.

Fostering Environmental Awareness

Personnel development is another critical initiative because it constitutes the foundation for promoting our environmental vision.

A desire to protect the environment is fostered by getting out and experiencing nature. As one example, since 2003 Mitsubishi Electric employees and their families have looked after a fledgling forest at the foot of Mt. Fuji. The benefit to the environment brought about by this initiative may be small, but I think the exhilaration that people feel from being in the midst of nature and their direct experience of the role and importance of it

are extremely meaningful.

We plan to continue raising environmental awareness among employees, their families and local community members through woodland preservation campaigns, environmental education for children on the importance of nature, and other social contribution activities. In this way we intend to further expand the scope of our activities.

A Corporate Group You Can Feel Good About

The Mitsubishi Electric Group is promoting environmental activities in China based on the slogan, Mastery of Energy Efficiency, Devotion to Environmental Protection. One such activity is our endeavoring to make the use of energy-efficient air conditioners that use inverter technology more widespread. Achieving this would reduce CO₂ to a substantial degree, even by global standards, There is still much that we can do, and much that we should do, in our business activities to help the environment.

Based on our commitment to make “Changes for the Better,” we will do our best and continue being a company that all stakeholders can feel good about by directly addressing environmental challenges with advanced, wide-ranging technologies and proactive, ongoing actions.

Setsuhiro Shimomura
President & CEO

下村 節 宏

**Basic Technology
Underpinning
Energy-saving
Products**



Reduce CO₂ Emissions from Product Usage

**Energy-saving Devices and
Technical Innovation in Products**

**Improve Energy Efficiency in Products and
Reduce CO₂ Emissions by 30%**

**CO₂ Emissions from Product Usage Exceed
Emissions Generated from Production by a
Factor of 40 to 50¹**

Under its Environmental Vision 2021, Mitsubishi Electric set forth a policy that, beyond decreasing CO₂ emissions from production alone, also requires efforts to cut CO₂ emissions during product usage. This is because CO₂ emissions during product usage exceed emissions from production by a factor of 40 to 50.

Our total annual emissions during production amounted to 474,000 tons in fiscal 2008. However, even decreasing this by 10 percent would amount to a mere 47,000 tons in reduced emissions, whereas a 1% improvement in energy efficiency in the product would translate to nearly 200,000 tons of CO₂ reductions during product usage.

At Mitsubishi Electric, we are forging ahead with technological advancements and offer an array of energy-saving products. As a result, by 2021 we are striving to achieve a 30% cut in CO₂ emissions during product usage.

¹ According to Mitsubishi Electric calculations.

**From Devices to Products—
Using Electricity Efficiently**

Much of the electricity used in electronic products is used to drive motors. This means that enhancing the efficiency of the product's power source and minimizing power loss are effective means of creating more energy-efficient products.

At Mitsubishi Electric, we have inverter technology and technology for the power semiconductors built into inverters used for motor control. This technology is akin to a "seed" that can be "planted" and used across a broad array of products, yielding energy savings in all of the product areas in which it is applied.

At Mitsubishi Electric, we develop and produce everything from power semiconductors to finished products. This breadth help us to use electricity efficiently. It is through the ongoing application of our strengths throughout the product development process that we are contributing to prevent global warming.

PV Inverter Equipped with Gradationally Controlled Voltage Inverter

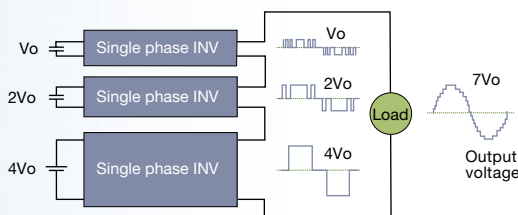
Minimizing Invisible Inverter Power Conversion Loss



The gradationally controlled voltage inverter was created by combining three inverters with differing voltage so that some of the output voltage manifests as a pseudo sine wave. This enhances voltage control responsiveness to beyond that of a single inverter, and is also able to minimize power loss. Using a gradationally controlled voltage inverter can translate into increased energy efficiency when it is equipped on a variety of devices.

In the photovoltaic (PV) generation sector, using this technology on PV inverter (a device designed to convert direct-current power from PV modules into alternate current for use in the home) yielded the industry's top¹ power conversion efficiency by achieving a level of 97.5%.²

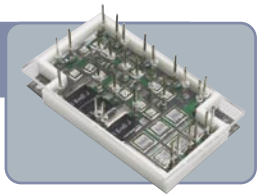
Principle Behind the Gradationally Controlled Voltage Inverter



■ Single phase INV: Single phase inverter
Base-2 number expansion or base-3 number expansion compared to direct voltage

SiC Power Device

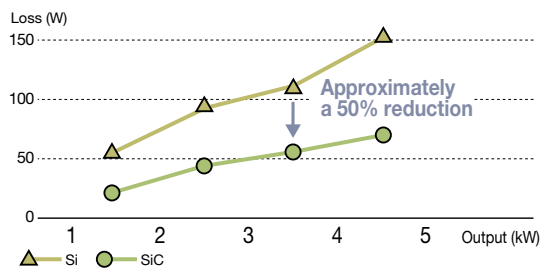
Next-generation Power Device Materials: the Key to Energy Savings



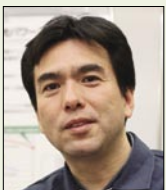
Power devices widely used today are made from Si (silicon), and it is said that reductions in power loss from these devices has come close to reaching its limit. Now SiC (silicon carbide) is garnering attention due to its excellent physical and electrical performance, and is expected to reduce loss in power conversion far better than Si.

Mitsubishi Electric has developed a power module in which all power semiconductors are made from SiC, and has designed a prototype inverter with 3.7kW output. The SiC inverter prototype, a step closer to practical use, has successfully reduced power loss by over half compared to conventional inverters that use silicon semiconductors.

Electrical Power Loss Comparison by Material



Voice



Dr. Akihiko Iwata
Manager
Power Distribution
Control Group
Power Electronics
System Development
Center
Advanced Technology
R&D Center

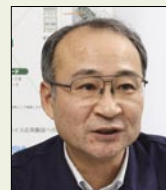
Conventionally, to convert direct current to alternating current, a semiconductor was used to turn the direct current voltage on and off. However, this results in large changes in the direct current voltage and significant electrical power loss.

Gradationally controlled voltage inverters, by directly connecting together multiple inverters with voltage that differs by a factor of two, and combining the output of each inverter, results in the potential to exert a very fine control and generate a wave pattern approximating that of a sine wave (a pseudo sine wave).

Some gradationally controlled voltage inverters were even able to attain a power conversion efficiency of 97.5%. As conventional products yield a level of 95.5%, this advance may sound trivial, but, in fact, this resulted in a significant reduction in power loss—nearly halving (44% to be precise) the percentage of electrical power loss from 4.5% to 2.5%.

This kind of gradationally controlled voltage inverter is clearly a key technology for Mitsubishi Electric among its power electronics technology, and we are fully intent on expanding its usage to an array of equipment.

Voice



Dr. Hiroaki Sumitani
Group Manager
SiC Device Project
Group
Advanced Technology
R&D Center

Power electronics equipment is widely used in home electronic appliances, equipment for industrial purposes, and electrical power systems. However, currently those that are being used in Si power devices are approaching the upper limits of their potential performance. As a result, SiC semiconductors are drawing attention and being researched around the world as a material for next-generation power device materials. Compared with their Si counterpart, SiC semiconductors feature a bandgap that is three times wider, and an insulation breakdown electrical field strength that is greater by nearly a factor of 10. It is also extremely heat resistant and durable in terms of voltage performance, compact with a low loss factor, and is highly efficient—characteristics that have led many people to have high expectations for this material in the future.

Increasing the density of output power for all power modules is the driving theme. The 3.7kW converter that is currently being tested is only one-quarter the volume of the Si inverter of the same output level. Power density, or output per volume, is a leading indicator of compactness. The Si inverter is encountering its limits at a scale of $2W/cm^3$; with SiC this has been rapidly raised to a level of $9W/cm^3$.

A manufacturing process that adequately draws out SiC's superior physical and chemical potential has yet to be established. Meanwhile, we continue to forge ahead with research in collaboration with makers of manufacturing equipment. Currently electrical power loss reduction has reached a level of about one half, but by getting closer to this material's true potential, it is thought that this can be further reduced to a level of one tenth.

¹ As of April 4, 2007. This was the top level attained in the industry among commercially-produced PV inverters made for domestic residential PV generation systems.

² Rated load efficiency as stipulated by JISC8961. PV-PN 40G values as measured by Mitsubishi Electric (Mitsubishi Electric existing products have a PVPN33G measure of 95.5%)



Next-generation Power Capacitor

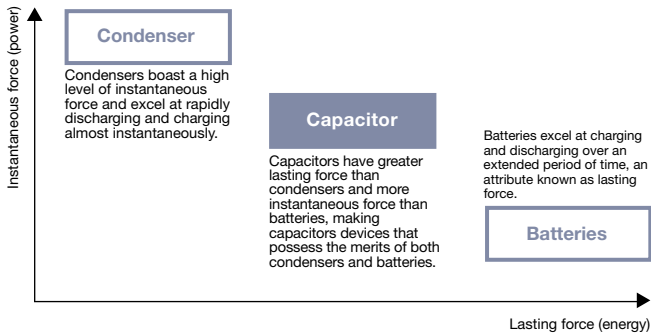
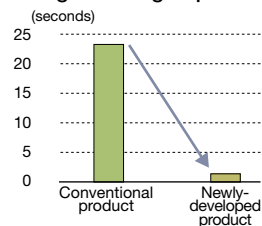
Rapid Charge and Discharge Made Possible in 1 Second!



Capacitors have greater lasting force than condensers and more instantaneous force than batteries. A capacitor storage device leverages the best of both these attributes.

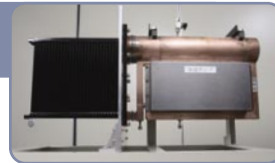
Beyond making possible one-second rapid charging and discharging, Mitsubishi Electric's newly-developed capacitor also has raised voltage endurance and increased storage energy. This is a device that will contribute to energy savings in motors, as well as help popularize photovoltaic power generation.

Comparison of Peak Charge-recharge Speed



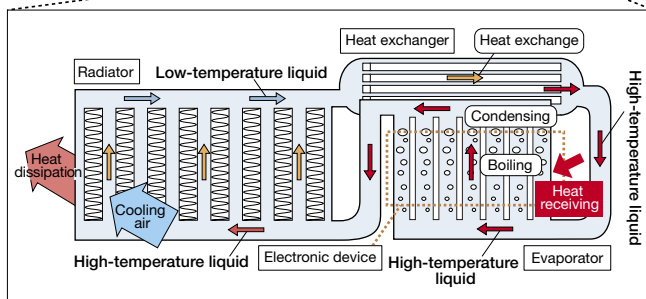
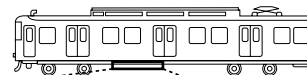
Pumpless Water Cooling System

Cooling Inverters without Electricity!



Electronic devices use electricity which flows to their components, and they emit heat in the process. Failing to address this issue can result in malfunctioning or equipment breaking down, so all equipment has built-in cooling mechanisms.

Mitsubishi Electric's newly developed pumpless water cooling system features heat exchangers that rely exclusively on the heat from electronic devices for power.



V o i c e

V o i c e



Dr. Kenro Mitsuda

Chief Engineer
Energy Device
Technology Department
Advanced Technology
R&D Center

One of the new areas in which utilization of capacitors is foreseen is that of instantaneous electric power regeneration in motors. Observers say that with motors having reached the level they are at today, achieving higher levels of energy savings will be difficult. But today the bulk of the regenerative electric power when the motor is stopped is simply discarded as heat. If using capacitors with heightened instantaneous force can be applied in a way to achieve a more effective use of regenerative electric power in devices that have frequent starting and stopping—such as trains, industrial equipment and elevators—then it will be certain to result in a very large saving of energy.

Furthermore, application in the area of photovoltaic (PV) power generation is also anticipated. The large fluctuations in photovoltaic generation due to changes in weather conditions and the impact that this can have on systems, such as in medium-sized power generation systems for buildings, has become an issue. As such, if capacitors can be used to lower the cost and raise the reliability of photovoltaic generation to smooth out power output, then it will contribute greatly to the spread of photovoltaic generation.

In the future, while further enhancing the technological development of next-generation capacitors, I would like to strive to reduce costs and work to incorporate these devices into our motors and PV power generation products.



Dr. Shigetoshi Ipposhi

Senior Researcher
Mechanical Systems
Department
Advanced Technology
R&D Center

Our pumpless water cooling system circulates the refrigeration medium using only the buoyancy of steam bubbles. There is a loop-type heat pipe system¹ that functions in the same way, but increasing the capacity of this system is incredibly difficult and the necessity of having the heat dissipation portion installed in the device's upper section is a limiting factor. Our development process has looked to preserve the merits of the loop-type heat pipe while overcoming its weak points.

The key point of development is that of circulating the refrigeration medium in a liquid state.

This process uses air bubbles, which generate force due to their buoyancy, to immediately cool the heat exchanger and return to a liquid state. By circulating only in liquid form, flow resistance is minimized and this also frees up the positioning of the heat dissipation area. The cooling of the heat exchanger with these air bubbles is done by the circulating of the liquid itself and is the key to this system. This liquid circulates between being a high-temperature liquid transporting heat and, after heat dissipation from steam, a low-temperature liquid. In other words, this is a mechanism in which the refrigeration medium essentially moves and cools itself of its own accord.

Not only is an external power source unnecessary, but this maintenance-free pumpless water cooling system has an untapped and incredible array of possibilities.

¹ Loop-type heat pipe: A cooling system in which steam and volatile liquid (the operating fluid) are injected into a highly airtight container, and which uses the heat of a device to heat the liquid until it gasifies, causing it to circulate and act as a coolant. This mechanism is used in personal computers to cool parts, such as the CPU. However, this type of cooling system is very rare.



Reduce CO₂ Emissions from Product Usage
Energy-saving Devices and Technical Innovation in Products

Improve Energy Efficiency in Products and Reduce CO₂ Emissions by 30%



Reducing CO₂ Emissions in Production

Promotion of Energy-saving Action Plan

0.1% of Turnover Invested in Energy-saving Facilities to Work to Steadily Reduce CO₂ Emissions

Achieved Targets for 3 Consecutive Years for Reducing CO₂ Emissions Per Unit of Real Net Sales

Mitsubishi Electric has set a voluntary target of reducing CO₂ emissions per unit of real net sales¹ by at least 60% by fiscal 2011, compared to fiscal 1991 levels.

In fiscal 2008, CO₂ emissions per unit of real net sales were 65.6% less than in fiscal 1991, so we have successfully met our target for three consecutive years. CO₂ emissions for fiscal 2008 were estimated to be 28,000 tons higher than the previous year because of increased production, but were curbed by 13,000 tons due a ¥3.37 billion investment² in energy-savings. As a result, CO₂ emissions for fiscal 2008 increased by 15,000 tons, bringing the total to 474,000 tons. We are endeavoring to lower this figure in accordance with our Environmental Vision 2021 program.

¹ CO₂ emissions per unit of real net sales: The basis adjusts product prices based on the corporate goods price index, so it is a more precise indicator than CO₂ emissions per unit of production volume.

² Details of energy-saving investment: Curbed 8000 tons of CO₂ emissions by investing in the "Energy-saving action plan" at ¥2.91 billion, approx. 0.1% of production output, and 5000 tons by investing ¥460 million in productivity improvement activities.

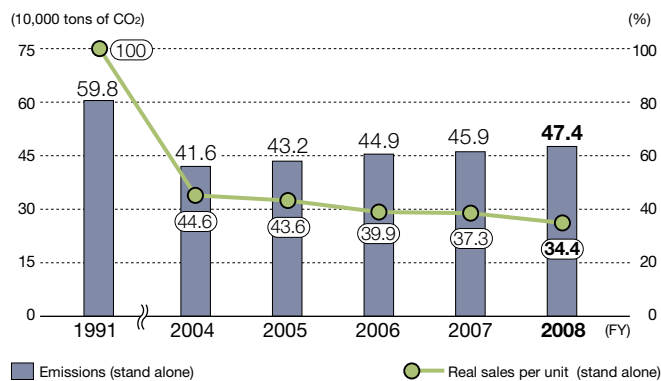
Launching Initiatives from FY2009 Aimed at Reducing CO₂ Emissions from Production by 30%

The Mitsubishi Electric Group's Environmental Vision 2021 calls for total CO₂ emissions from production to be reduced by 30% by 2021.

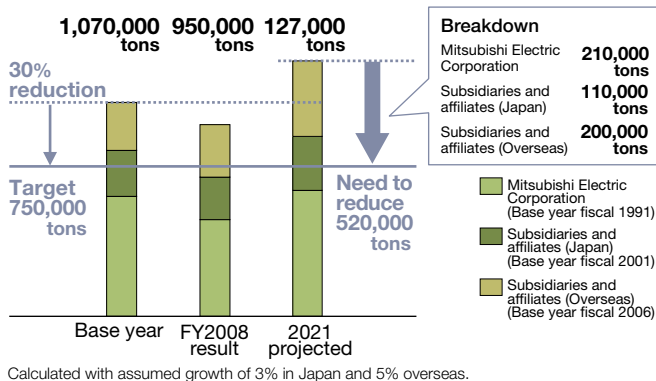
In order to achieve this vision, our energy conservation action plan¹ targeting our energy efficiency diagnostics program—in which production sites check on the status of one another's energy conservation activities—will be extended to group companies, and we will continue to promote the 3R's (reduce, reuse, recycle) to help prevent global warming, as well as encourage the use of energy-efficient IT devices throughout the Group.

¹ The action plan is comprised of three initiatives for reducing CO₂ emissions: installing high-efficiency devices, conducting energy loss minimization activities and converting to alternative fuels. As of fiscal 2008, Mitsubishi Electric (non-consolidated) has invested a total of ¥8,695 million since fiscal 2005 and has reduced CO₂ by 30,718 tons (see table below for details).

CO₂ Emissions and Emissions per Units of Real Sales



Environmental Vision 2021 Reduction Targets



Energy Conservation Action Plan Progress

Measures	Reduction target to fiscal 2011 (t-CO ₂)	FY2005		FY2006		FY2007		FY2008		Total	
		Result		Result		Result		Result		Result	
		Amount reduced (t-CO ₂)	Investment made (million yen)	Amount reduced (t-CO ₂)	Investment made (million yen)	Amount reduced (t-CO ₂)	Investment made (million yen)	Amount reduced (t-CO ₂)	Investment made (million yen)	Amount reduced (t-CO ₂)	Investment made (million yen)
Introduction of high-efficiency equipment	34,800	4,098	1,443	5,910	1,468	8,842	2,481	7,514	2,753	26,364	8,145
EM activities	8,000	214	41	266	76	890	156	454	153	1,824	426
Shift to alternative fuels	3,200	1,872	48	334	49	320	25	4	2	2,530	124
Total	46,000	6,184	1,532	6,510	1,593	10,052	2,662	7,972	2,908	30,718	8,695
Aggregate total	—	6,184	1,532	12,694	3,125	22,746	5,787	30,718	8,695		



Product 3Rs

At the Vanguard of Plastic Recycling

Encouraging the Recycling of Mixed Pulverized Plastic That Used to Be Destined for Disposal

Currently, the movement to recycle plastic recovered from end-of-life home appliances is gaining momentum.

However, because at the time of recovery the plastic has dropped in quality due to factors such as oxidation, the bulk of plastic recycling “downgrades” plastic when it is reused, channeling it for use in products such as plastic knickknacks and imitation trees. Typically the plastic resin materials that can be removed easily through manual dismantling are recycled. But only around 10% of the plastics can be recovered manually. The remainder is left to be crushed and shredded mechanically and then incinerated and buried as landfill.

If the recycling rate for plastic recovered from end-of-life home appliances could be increased, then the need for new plastic materials could be commensurately reduced, thus contributing to the formation of a recycling-based society.

That is where the Mitsubishi Electric hit upon developing its “reforming technology,” or technology that takes the plastic crushed after manual dismantling (mixed pulverized plastic) and automatically selects various types of designated plastic to create high-quality recycling materials.

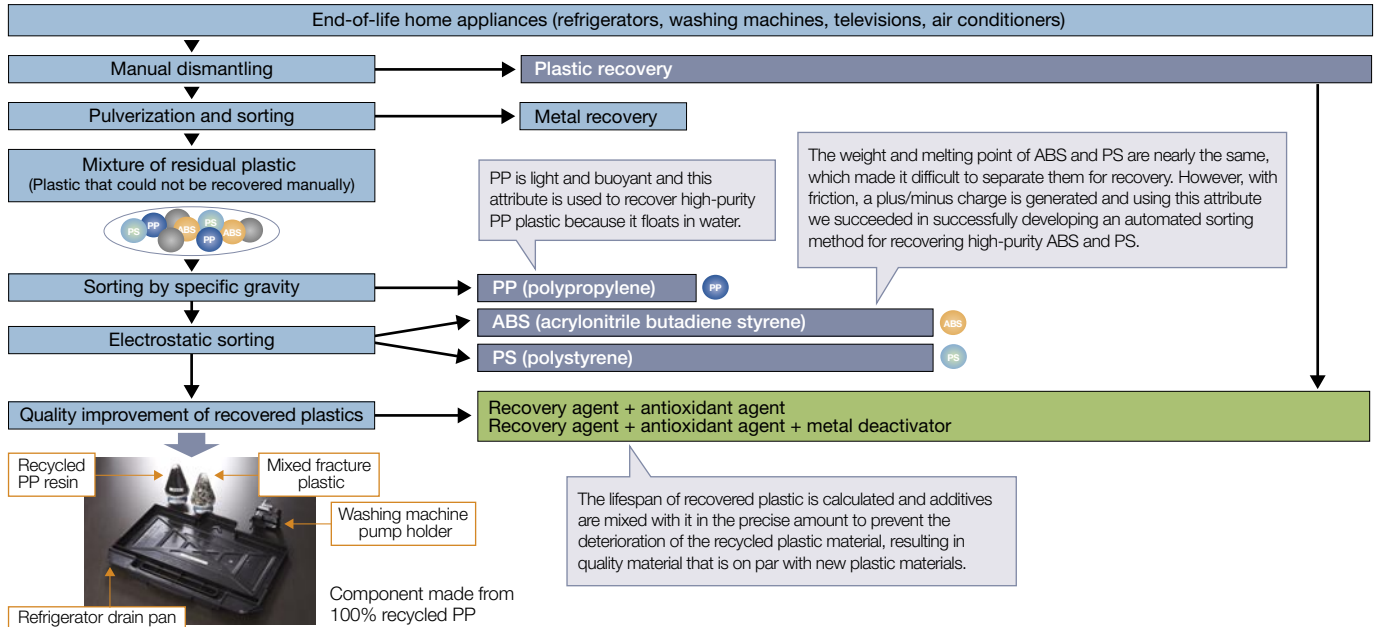
Already as a result of this initiative products with parts made entirely from selectively recovered plastic materials are being produced. In May 2006, we marked a first for the home appliance industry when we succeeded in making a washing machine incorporating a pump holder made from recycled mixed fracture PP (polypropylene); in December we succeeded in mass-producing a refrigerator incorporating a drain pan. Since 2007, we have also been using these recycled materials in the covers of dishwashers.

Levels of Recycling Technology Difficulty

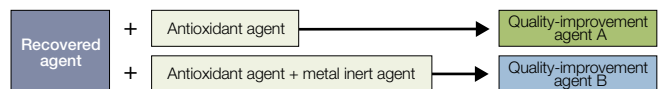
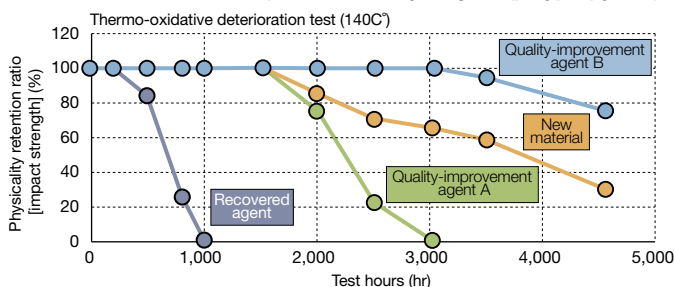
Level 1	Reusing only parts that are easy to manually dismantle, differentiate the types of plastics and remove impurities
Level 2	Reusing only parts that are easy to manually dismantle and differentiate the types of plastics
Level 3	Reusing after manually dismantling and individually analyzing the types of plastics
Level 4	Reusing after automatically sorting plastics that have been mixed and pulverized

Level 4 has only been achieved and is only being practiced by Mitsubishi Electric.

Selecting High-Purity Mixed Pulverized Plastics Process



Results of Acceleration Experiments Recycling PP (polypropylene)



At Mitsubishi Electric, in addition to quantifying the functional age of recovered plastic materials we have newly created a “quality improvement” method to prevent the deterioration of recycled plastic materials. This involves adding precisely the right recipe of additives to prevent the deterioration of the recycled plastic materials. In this way we have succeeded in creating recycled plastic materials that are on the same level as new plastic materials.

This has made possible the creation of new or improved functions, such as the creation of recycled materials that are more durable and fire-resistant than new plastic materials.



Recycling Activities Coordinated Between Offices

Progressive Examples of Recycling Initiatives That Transcend Regional Geography are Drawing Attention

Mitsubishi Electric's manufacturing works all around Japan have begun a series of activities to reduce waste. Among these is a unique initiative that is attracting attention: the collaborative effort being pursued by five areas in the Kansai region, those of Kobe, Itami, Kita-itami, Himeji and Akou.

Industrial waste is typically processed in accordance with the regulations of local areas, which has made it difficult to recycle waste across local boundaries, even when the waste is generated by the same company. As a result, an initiative was launched by local-area environmental managers, on their own, to work together and create a system for cross-boundary recycling through trial and error. This is an extremely uncommon example in this industry.

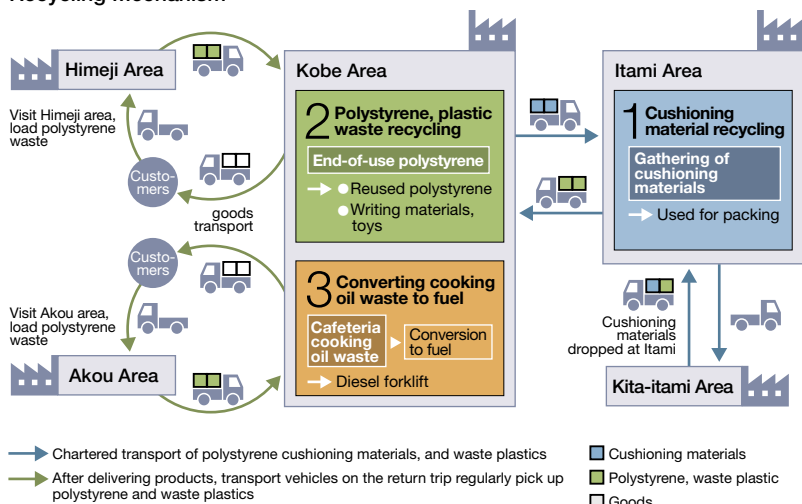
The working group first met to determine a way to reuse cushioning materials. In the Kobe area, where general and public-run plant facilities that manufacture large products are located, the use of cushioning materials used to pack components generates a very large amount of waste each month. At the same time, the Itami area plant, which makes electronic components for vehicles, requires a very large amount of cushioning materials for the shipments it makes. In June 2006, cushioning materials began to be supplied from the Kobe area to

the Itami area, marking the first step in an integrated approach to recycling among these areas. Ultimately, these activities expanded to form a network including Kita-itami, Himeji and Akou area facilities, and involved the recycling of sheet waste plastics and polystyrene foam. Today each area facility aggregates its waste, bringing it to one place for compacting. This initiative has evolved into a movement where outside facilities are reusing these plastics in components for new products. In addition, another initiative successfully implemented involved making biodiesel fuel from cooking oil waste and using it to power forklifts.

After completing a review of the overall policy for reuse and recycling, Mitsubishi Electric turned its attention to reducing CO₂ emissions stemming from transport. After considering a number of proposals, we concluded a Charter Service agreement with waste transport contractors, and with the collaboration of transport companies that deliver to regular customers, we devised transport routes in a way to avoid having empty transport vehicles on the road.

So in this way, the five area facilities in the Kansai area have come together to complete a network that works together to promote an environmental logistics system that yields a more efficient use of resources.

Recycling Mechanism



- Cushioning materials:** Cushioning materials that are no longer needed for the Kobe and Kita-itami areas' operations are reused in the Itami area as packaging materials for products being shipped. A special "Charter Service" transports the materials from the Kobe area to the Itami area. On the return trip the waste plastic sheets and waste polystyrene are transported from the Itami area. A detour is made to the Kita-itami area, where cushioning materials, waste plastic sheets and waste polystyrene is loaded. At the Itami area, cushioning material is unloaded and Itami's waste plastic sheets and waste are loaded for the return trip. Under this system, the Itami area has been able to halve the amount of cushioning materials it has had to purchase.
- Polystyrene, polyethylene sheet:** In the Itami and Kita-itami areas, a system of transport that maximizes return trips for pick up of transport cushioning material has been put into place while the Himeji and Akou areas have established chartered transport systems to allow for the collection of materials on return trips from deliveries to regular customers. The polystyrene and polyethylene sheets that accumulate at each area is gathered inside the Kobe area Recycle Center and processed (compacted). After being compacted, the resulting material is passed on to a recycling contractor and the materials are reborn in the form of reused plastics used in new products.
- Cooking oil waste:** In the Kobe area, waste cooking oil generated at the employee cafeteria is processed using a special on-site device to produce biodiesel, which is then used to fuel forklifts and other work vehicles used on the worksite premises. Currently, biodiesel is being used for all of Kobe area's work vehicles that are outfitted to run on the fuel.

Voice



Yuji Ouchi
Energy System Center
Manufacturing Systems
Department Environment
Promotion Group

I have learned that in developing a recycling system, logistics plays a very important role. One of the secret goals that I hoped to achieve through this project was to see Mitsubishi Electric provide feedback from the perspective of its manufacturing business to its overall business and boost awareness in regard to environmental issues among those in charge of facility design and those in charge of manufacturing. Because ideally, at the end of the day, we should really be aspiring not to increase what we recycle, but to not produce any waste.

Voice



Satoshi Nishino
Itami Works Manufacturing
Systems Department
Environmental Facilities
Section Manager

In manufacturing it is important to think about the "cost" of waste. Doing so leads to a drop in the amount of resulting waste and productivity rises. Whether waste materials are to be sold or recycled, these materials are by definition "unwanted substances." And in my opinion, at the heart of environmental management is thinking about how to avoid generating unwanted substances. In the future, we want to increase the type of waste that can be handled and the number of entities involved. We would also like to expand the reach of the project to include other areas.



Ensuring Harmony with Nature and Fostering Environmental Awareness

The Expanding Sphere of Environmental Awareness

Broadening the Scope of Environmental Awareness through Outdoor Classroom and Woodland Preservation Activities

Environmental conservation activities are able to gain momentum precisely due to a mindset that actively wishes to protect the environment. The Mitsubishi Electric Group has developed and is expanding a participatory approach to get each and every employee involved in undertaking environmental conservation activities.

A prime example of this is the Mitsubishi Electric Outdoor Classroom. This outdoor classroom is led by employees who act as “nature protection leaders.” These employees promote protection of the environment by leading outdoor activities to help young people who live near Group facilities experience the outdoors and observe nature. Some goals of this program are to have them

Mitsubishi Electric Outdoor Classroom Case Study



The theme for outdoor classroom lectures is using all five senses to experience nature. Repeated new discoveries get participating children involved and excited.

Woodland Preservation Activities



Members of the Kobe area group devoted to activities that contribute to the betterment of society clear away dead wood in local forests with future dreams of making the forest a place where children can play at ease.

learn firsthand about the cycle of nature, and to instill an appreciation for the environment. Since the inaugural event held in October 2006, outdoor classroom events have been held a total of eight times through fiscal year 2008 and had nearly 200 participants, including children, employees and their families. Outdoor classroom event leaders consistently say they are happy that they had the opportunity to lead the events, and that they look forward to devising even better outdoor classroom events in the future. To continue to further the spread of these activities, the Mitsubishi Electric Group is working to train a total of 1,000 nature protection leaders by the centennial of the company’s founding in 2021.

Another employee-driven program is the Woodland Preservation Activities program launched in fiscal year 2008. Woodland, or *satoyama* in Japanese, refers to nature in close proximity to people, such as coastlines, riverside areas, fields and forests. Increased environmental awareness is nurtured among staff through preservation activities targeting the natural environment near plant facilities. For example, staff working in Mitsubishi Electric’s Kobe area voluntarily formed a group to contribute to society and undertake activities such as recruiting forest volunteers to work to help maintain the woods of Aburai Chinju no Mori in Shinoyama City, Hyogo Prefecture.

Voice

From the Outdoor Classroom Office

Yoshio Isogai

Outdoor Classroom Secretariat, Environment Promotion Headquarters

In fiscal year 2008 we put the emphasis of our efforts on training a group of leaders in the Chubu and Kansai regions. We are looking at having facilities in mountainous areas and those nearer the sea work together so that we can expand network activities and devise ways for participants to enjoy both what the mountains and the ocean have to offer.

The enthusiasm of leaders has propelled this program from its fledgling status in fiscal year 2007 and helped us to sponsor events over an ever-growing area.

These activities are not only about having fun. At the same time, it is also important to make sure that no one gets injured. We aspire to see that all of the participants enjoy themselves and the activities.

Voice

Thoughts from Outdoor Classroom Leaders



Teruyuki Shibata

Outdoor Classroom Leader

At the beginning of an outdoor classroom event the children are slightly nervous, but watching them overcome this as they become accustomed to the situation, and the excited light that you can see in their eyes, is the fuel that keeps these outdoor classroom activities going.

I feel that it is also the leader’s job to convey to the children traditional ways of having fun within nature. In any event, having fun yourself is of key importance and a trick to making sure that the children enjoy themselves.



Hiroaki Sakauchi

Outdoor Classroom Leader

I am considering incorporating some games or outdoor playing to help break the ice for the children, who will be meeting for the first time, and to encourage communication amongst them.

In addition, I feel that a thorough pre-program survey is essential to ensuring that a program is successful.

To help ensure that all of the program’s future participants will enjoy themselves I am learning about local flower and grass ecosystems.

Examples of Overseas Activities *in China*

精于节能 尽心环保

China's rapid economic development continues to bring to the fore energy problems and environmental pollution issues. As interest in the environment heightens daily, Mitsubishi Electric is putting effort into helping encourage human resource education to play a part in solving environmental problems, and to contribute to energy-saving solutions designed to realize a society which is more aware of the environment.

First Overseas Event to Educate Key Environmental Personnel

On March 17 and 18, 2008, Mitsubishi Electric held an event for the first time to educate key persons about the environment.

A total of 23 people involved in environmental management selected from 11 areas around China attended lectures for people in key environmental management positions. As this marked the first time for this event to be held, the training program focused on responding to environmental regulations and minimizing environmental risks.

On the first day of training, participants studied the Mitsubishi Electric Group's policies and approach to the environment as well as domestic Chinese environmental laws and regulations. On the second day, risk management systems at domestic Works were introduced, participants were taken on a factory tour of Mitsubishi Electric's Guangzhou MGC (Mitsubishi Electric Guangzhou Compressor) factory and a group discussion also took place.



The venue for the event was this compressor manufacturing plant Mitsubishi Electric Guangzhou Compressor, which is the Mitsubishi Electric Group's largest production base.



With checklists in hand, participants take a tour of the factory,

Endeavoring to Popularize Energy-saving Inverter Air Conditioners

Inverter air conditioners are energy-saving devices which operate by adjusting the revolution rate of the motor as necessary based on a room's temperature. However, in China the adoption rate of this type of air conditioner is only around 8%.¹ With nearly 30% of household CO₂ emissions said to be due to air conditioners, Mitsubishi Electric is working to popularize inverter air conditioners in China by expanding our product line and bringing the topic to the attention of consumers.

In addition, we are also actively promoting the benefits of energy-saving commercial air conditioning equipment. We have compiled a catalog, the "Air Conditioning Solution Catalog," which outlines products, including those for schools, business and hospitals, and lists key issues to be aware of, as well as a wealth of cases showing how these issues can be resolved.

¹ According to Air Conditioning Trade Journal, October 2007



Room air conditioner ZD series
This is the newest in our series of air conditioners that comes equipped with the human-sensing energy conservation sensor and inverter technology, which means more energy savings and greater comfort. (This also secured Shanghai City's INV top energy-saving rank.)



An air conditioner showroom operated by Mitsubishi Electric in Shanghai. This display space is split into a zone for household models and one for commercial models. Each zone exhibits the newest models.

Participating in the 9th China International Environmental Protection Exhibition

In April 2008 at the 9th China International Environmental Protection Exhibition, the Mitsubishi Electric Group exhibited a comprehensive assortment of energy-saving products that address environmental needs.

This display introduced energy-saving products and technologies that take into account environmental conservation for a variety of situations, including factories, public spaces, the office and the home. Among the exhibits was the ozone generator, which uses the power of ozone to purify water, as well as devices that support energy-saving efforts by showing in real time the amount of energy being consumed. This was of particular interest to event attendees.

During the three-day event more than 4,000 individuals, most of them business people, paid a visit to our booth at the exhibition.



Mitsubishi Electric wins Best Design Award



The corner featuring our City Multi air conditioning system that allows for localized air conditioning in only the rooms requiring it was constantly full of people



Material Balance

Period of Data Compilation: April 1, 2007 – March 31, 2008
 Scope of Data Compilation: Mitsubishi Electric Group (Mitsubishi Electric Corporation's production facilities in Japan, 77 affiliates in Japan, and 22 affiliates overseas)

IN

Materials for Manufacturing			
	Mitsubishi Electric	Affiliates (Japan)	Affiliates (Overseas)
Materials ¹	440,000 tons	110,000 tons	490,000 tons
Manufacturing			
Electricity	952 million kWh	411 million kWh	309 million kWh
Natural gas	23,180,000 m ³	3,220,000 m ³	14,810,000 m ³
LPG	2,216 tons	3,018 tons	1,618 tons
Oil (crude oil equivalent)	6,620 kl	9,629 kl	230 kl
Water	6,290,000 m ³	2,240,000 m ³	1,870,000 m ³
Surface water	1,460,000 m ³	590,000 m ³	530,000 m ³
Industrial water	2,470,000 m ³	460,000 m ³	1,220,000 m ³
Groundwater	2,360,000 m ³	1,190,000 m ³	24,000 m ³
Others	0 m ³	0 m ³	100,000 m ³
Reuse of Water	2,850,000 m ³	1610,000 m ³	100,000 m ³
Controlled chemical substances (amounts handled)	6,889.8 tons	2,201.3 tons	4,544 tons
Ozone depleting substances (amounts handled)	26.5 tons	75.8 tons	1,641 tons
Greenhouse gases (amounts handled)	3,104.1 tons	45.9 tons	764 tons
Volatile organic compounds (amounts handled)	2,827.6 tons	1,148.1 tons	75 tons

¹ **Materials:** Total of shipping weight of Eco-Products, plus product packing plus waste disposal

Factory

OUT

Emissions			
	Mitsubishi Electric	Affiliates (Japan)	Affiliates (Overseas)
Water	4,940,000 m ³	1,630,000 m ³	1,110,000 m ³
Controlled chemical substances	13.2 tons	2.0 tons	0.0 tons
BOD (biological oxygen demand)	137.3 tons	5.1 tons	22.1 tons
COD (chemical oxygen demand)	36.8 tons	4.7 tons	55.1 tons
Nitrogen	90.7 tons	15.5 tons	2.3 tons
Phosphorus	3.4 tons	0.1 tons	0.1 tons
Suspended solids	93.2 tons	4.2 tons	27.9 tons
n-hexane extracts (mineral)	3.2 tons	0.4 tons	3.1 tons
n-hexane extracts (active)	4.0 tons	0.2 tons	0.1 tons
Total emissions of zinc	0.3 tons	0.0 tons	0.1 tons
Carbon dioxide (CO ₂)	474,000 tons-CO ₂	214,000 tons-CO ₂	263,000 tons-CO ₂
Controlled chemical substances (excluding amounts contained in other waste)	719.2 tons	103.2 tons	14.2 tons
Volatile organic compounds (toluene, xylene, styrene)	658.5 tons	97.0 tons	5.6 tons
Greenhouse gases	232,000 tons -CO ₂	167,000 tons -CO ₂	26,000 tons -CO ₂
Ozone depleting substances	0.11 ODP t	0.70 ODP t	9.80 ODP t
Sulfur oxide (SO _x)	1.5 tons	0.55 tons	0.00 tons
Nitrogen oxide (NO _x)	20.5 tons	7.8 tons	31.1 tons
Dust	1.5 tons	4.6 tons	9.2 tons
Amount of CFCs recovered	46.6 tons	418.2 tons	-
Waste			
Total waste emissions	86,200 tons	57,800 tons	57,800 tons
Volume recycled	72,200 tons	47,200 tons	44,200 tons
Waste treatment subcontracted out	14,000 tons	10,600 tons	13,600 tons
Final disposal	135 tons	830 tons	2,860 tons
Weight reduction in-house	2,560 tons	0 tons	0 tons
Product ²			
Weight of all Eco-Products sold	316,000 tons	48,000 tons	387,000 tons
Weight of packaging materials	42,000 tons	8,000 tons	47,000 tons

² **Products:** Weight related to Eco-Products

Selling and Distribution

	Mitsubishi Electric	Affiliates (Japan)	Affiliates (Overseas)
Fuel for trucks (gasoline)	70 kl	2,960 kl	170 kl
Fuel for trucks (diesel)	24,700 kl	6,300 kl	14,200 kl
Fuel for rail (electricity)	1,480 MWh	346 MWh	0 MWh
Fuel for marine transport (bunker oil)	460 kl	90 kl	10,800 kl
Fuel for air transport (jet fuel)	430 kl	100 kl	14,500 kl

Logistics

Energy Consumption³

	Mitsubishi Electric	Affiliates (Japan)	Affiliates (Overseas)
Electricity ³	7,150 million kWh	1,420 million kWh	15,680 million kWh

³ **Energy Consumption, Electricity:** Amount related to Eco-Products

Products (Customer)

Selling and Distribution

	Mitsubishi Electric	Affiliates (Japan)	Affiliates (Overseas)
Carbon dioxide (CO ₂)	69,000 tons-CO ₂	25,000 tons-CO ₂	105,000 tons-CO ₂

Emissions⁴

	Mitsubishi Electric	Affiliates (Japan)	Affiliates (Overseas)
Carbon dioxide (CO ₂) ⁴	3,017,000 tons-CO ₂	599,000 tons-CO ₂	-

⁴ **Emissions, Carbon Dioxide (CO₂):** Amount related to Eco-Products

Products at End of Life⁵

	Mitsubishi Electric
Air conditioners	10,536 tons
Televisions	9,548 tons
Refrigerators	18,174 tons
Washing machines	6,009 tons
Personal computers	83 tons

⁵ **Products at End of Life:** Weight of products taken back and weight of recovered resources of four types of appliances subject to Japan's Home Appliance Recycling Law, plus personal computers

Recycle

Resources Recovered⁶

	Mitsubishi Electric
Metals	23,796 tons
Glass	4,715 tons
CFCs	248 tons
Others	8,050 tons

⁶ **Resources Recovered:** Weight of products taken back and weight of recovered resources of four types of appliances subject to Japan's Home Appliance Recycling Law, plus personal computers

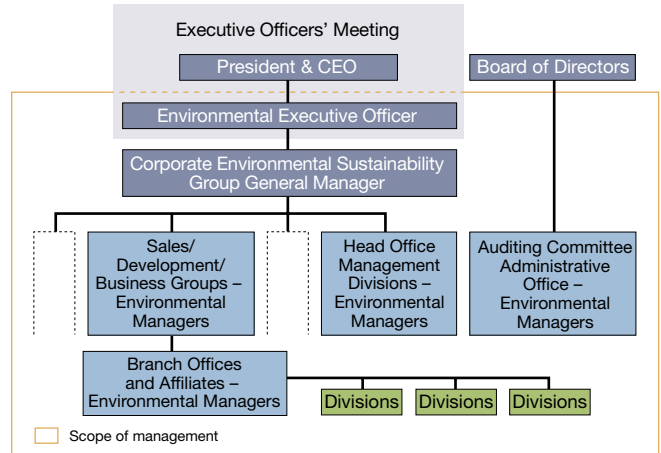
Environmental Management System

The Mitsubishi Electric Group is striving under our 5th Environmental Plan, running from fiscal 2007 to 2009, to integrate operation the Environmental Management Systems (EMS) operations for all of our companies on a group-wide basis.

In March 2006, at our head office and branches when updating systems to meet the requirements of ISO 14001: 2004, we undertook efforts to integrate the Environmental Management Programs (EMP) for each of our EMS-operating entities (such as at our Works) with our Environmental Plan.

In fiscal 2008, we formulated a protocol for our business headquarters to confirm whether the environmental EMPs for all EMS operations were in accordance with one another. In recent years, demands from the perspective of corporate social responsibility have heightened, requiring enhanced environmental consideration across the spectrum of corporate activities, including sales to supplier chains. To address this, from fiscal 2009 we expanded our integrated operations to include EMPs for non-production facilities.

Organization Chart for Environmental Management



Environmental Education

To continuously enhance the quality of our environmental management, the Mitsubishi Electric Group offers an array of general environmental education as well as specialized training.

Our general education, which is for Group company employees, is a program based on employee knowledge, career stages and attributes, and formulated in a way to yield optimal results.

Specialized education courses are implemented in each of the following areas: environmental management, materials, design, production, and sales. For example, since fiscal 2005 in the specialized education course for environmental management, the curriculum has consisted of teaching how to maintain the environmental management system, as well as educating key environmental personnel. Since its inception, the course has seen 94 people complete it successfully. In addition, from fiscal 2007, we have been stressing specialized education for employees that are

involved in work related to environmental governance.

In fiscal 2008, a total of 50,000 people among group companies received environmental education and training.



Education of environmental key persons. In fiscal 2008, 30 individuals successfully completed the end-of-course examination.



In the specialized training for the design sector, the lecture curriculum includes product dismantling experiments to instill a better appreciation for how to encourage product recycling through design.

Design for the Environment

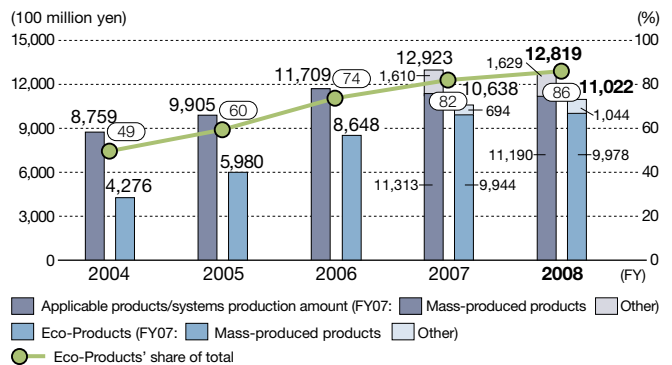
The Mitsubishi Electric Group has been working on design for the environment since 1991 to minimize the environmental impact of products over the entire product lifecycle. For evaluation purposes, the Factor X environmental efficiency improvement indicator is used to determine products which have achieved a superior level of environmental design, which are known as "Eco-products." Products that receive an extremely high environmental rating are certified "Hyper Eco-products."

In fiscal 2009 we are striving to record an Eco-product ratio of 100% for our mass-produced products and a ratio of 80% for other products. The reason for this delineation is that we felt all mass-produced products developed each year should be Eco-products.

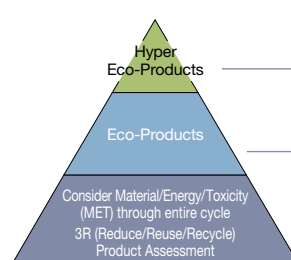
In fiscal 2008, of our total lineup of 167 products, 80 products were targeted as design-for-environment products, with an Eco-product ratio per production output for mass-produced products of 89%, and 64% for other products. A total of 24 products were certified as Hyper Eco-products.

From fiscal 2010, with our 6th Environmental Plan we will work to achieve our Environmental Vision 2021 and will review our product evaluation indicators, which are used to show the level of achievement we have attained with our products.

Emissions Per Unit of Real Sales



The Concept of Design for the Environment



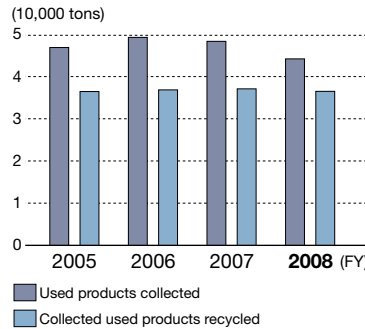
Definition
1) Introduce a new concept or innovative technology that contributes to sustainability 2) Or achieve a Factor X of higher than 2 (Our "Factor X" allows simultaneous assessment of MET [Material/Energy/Toxicity] and product performance). 3) Or receive a prestigious environment-related award of excellence.
Eco-products: 1) Satisfy predetermined quantitative criteria including a Factor X improvement and social contribution. 2) Or are recognized as the best products ("top runners") in their class or receives an environment-related award of excellence.
Environmentally Effective Products: Lead directly to environmental improvement when used

Recycling of End-of-life Products

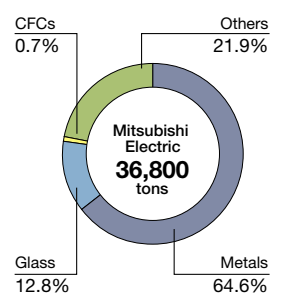
In fiscal 2008, we recycled 1.1 million, or 104% of the fiscal 2007 figure, of the four major home appliances (air conditioners, televisions, refrigerators/freezers, washing machines), resulting in a ratio of 82.5% being reused in products. We collected a total of 5,599 computers, including both business and home computers, 74.7% of which were reclaimed as resources.

In addition to efforts to make products easy to scrap, in order to heighten our reuse in product ratio and resource reclamation ratio, at Mitsubishi Electric we have developed our own advanced sorting and recycling technologies for hard-to-recycle plastics.

Collection Volumes for Principal Products



Breakdown of Resources Recovered



Reducing of Chemical Emissions

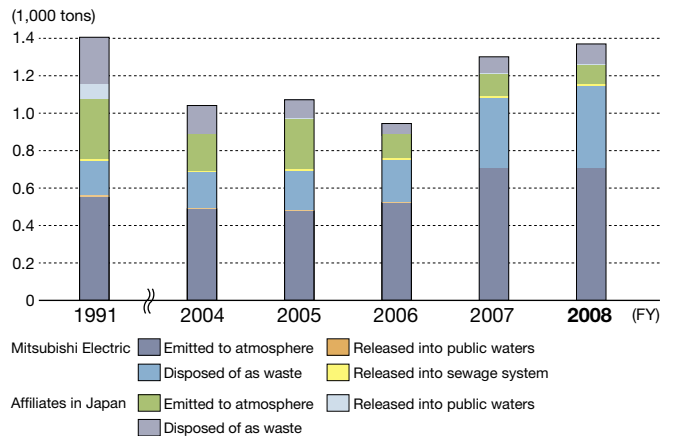
The Mitsubishi Electric Group at Japanese domestic production facilities manages some 580 chemical substances: those that are subject to the national PRTR¹ framework, and 226 chemicals that are managed on a voluntary basis. Substances that are managed on a voluntarily basis include refrigerant fluorocarbons used in air conditioners and refrigerators, volatile organic compounds, and the six RoHS substances.

In fiscal 2008, release and transfer of chemical substances increased in conjunction with production, rising 6.3% year-on-year.

Group release and transfer of styrene and xylene are especially abundant, so we are working to develop new technologies that can function as substitutes for these substances to enable further cuts of both in the future.

¹ PRTR: Pollutant Release and Transfer Register

Chemical Substance Releases and Transfers



Waste Reduction and Zero Emission Activities

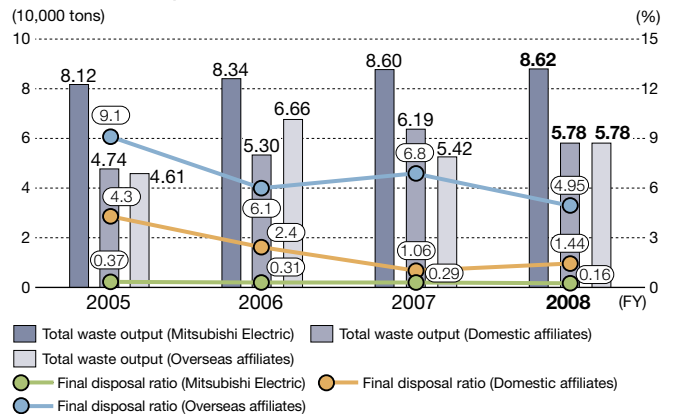
Under our 5th Environmental Plan, aiming to achieve zero emissions we have set targets to reduce direct landfill disposal volume to 0.5% of total waste emissions or less, and to reduce final disposal volume among affiliates and subsidiaries in Japan to 1% or less of total waste emitted.

In fiscal 2008, final disposal volume at domestic plants was 0.16%, the sixth consecutive year to record a figure of 1% or less and fourth consecutive year to achieve 0.5% or less.

The total for domestic affiliates and subsidiaries was 1.44%, while overseas plants improved to a ratio of 4.95%.

In the future, we are planning to compose indicators that will assign a priority ranking to recycling methods as well as review efficiency-enhancing measures in the production process to promote zero emissions of byproducts.

Total Waste Output

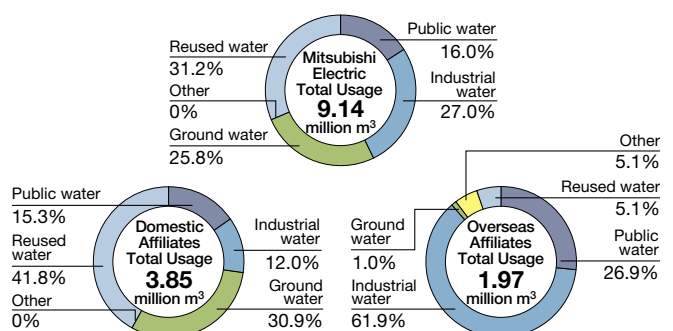


Efficient Use of Water

During fiscal 2008 we continued our water conservation activities from the year before, endeavoring to reduce water use in our plants and offices, as well as recycling of water for industrial use and tap water. Water usage as a company totaled 9.14 million cubic meters, with 2.85 million cubic meters, or 31.2% of this water being recycled. Compared with the prior year, the water-recycling ratio rose by 2.2%. Water usage at our domestic affiliates and subsidiaries totaled 3.85 million cubic meters and at our overseas affiliates and subsidiaries the figure was 1.97 cubic meters.

In fiscal 2009, we are expanding the scope of water usage surveys and reviewing again plans for the potential usage of rain and other means of reusing water.

Water Usage Overview



Environmental Accounting

Period: April 1, 2007 – March 31, 2008

Scope of Data Compilation: Mitsubishi Electric Corporation and 99 of its domestic and overseas affiliates and subsidiaries (77 domestic, 22 overseas)

□ Mitsubishi Electric Group □ Mitsubishi Electric (100 million yen)

Environmental Protection Costs				
Item	Capital Investment	Cost ¹	Year-on-Year Change	Main Costs
Business Area Activities	54.6	101.1	15.5	
	36.3	65.1	10.0	
Pollution Prevention	9.2	38.5	8.2	Maintenance cost of the renewal of exhaust and water treatment equipment, vehicle replacement (investment), PCB inclusion survey cost, etc.
	4.0	23.3	4.5	
Global Environmental Protection	42.6	27.9	6.0	Changing of high-efficiency type air-conditioner and refrigerator machines, introduction of photovoltaic generation, investment in green roofs, etc.
	32.2	19.6	4.2	
Resource Recycling	2.8	34.7	1.3	Expenditure on waste processing, reduced use of wood packing materials, product scrap recycling, etc.
	0.1	22.2	1.3	
Green Purchasing/Procurement and Product-Related Activities of Upstream and Downstream Production	1.4	13.5	(2.7)	Product survey for RoHS compliance, waste products recycling expense, etc.
	0.9	11.0	(2.9)	
Management Activities	0.1	34.8	(0.7)	Expenditure on environmental education, EMS activities, environmental exhibition, greening business sites, etc.
	0.0	24.5	0.1	
Negative Environmental Impact Reduction and R&D Activities	0.9	39.9	2.3	Development of HC Heat pump with natural refrigerant, development of technology to increase photovoltaic cell efficiency, development of new structure power modules, development of water quality control technology, etc.
	0.9	37.6	8.1	
Community Activities	0.0	1.2	0.1	Offsite cleanup activities, prepared woodland conservation activities, etc.
	0.0	1.1	0.1	
Environmental Damage	0.0	2.7	1.1	Expense related to the survey and cleaning of contaminated soil and underground water
	0.0	2.7	1.3	
Total	57.0	193.2	15.6	
	38.1	142.0	16.7	
Year-on-Year Change	(3.4)	15.6		
	3.4	16.7		

¹ Includes depreciation of capital investment over the past five years.

Environmental Conservation Benefits (Environmental Performance) ²				
Item	Unit	Fiscal 2007	Year-on-Year Change	Year-on-Year Per Net Sales
Total Energy Used	10,000 GJ	1,526	63	99%
		1,060	34	98%
Total Water Used	10,000 m ³	853	(70)	88%
		629	(54)	87%
Total Greenhouse Gas Emissions	10,000 tons-CO ₂	109	17	113%
		71	11	112%
Total Atmospheric Emissions of Chemical Substances	tons	822	6	96%
		719	5	96%
Total Water Discharged	10,000 m ³	657	(80)	85%
		494	(85)	81%
Total Discharge of Chemical Substances in the Water and Soil	tons	15	1	105%
		13	1	104%
Total Waste Discharged	tons	144,000	(3,931)	93%
		86,200	169	95%
Final Disposal	tons	965	(123)	84%
		135	(103)	54%

² Exclude Overseas affiliates

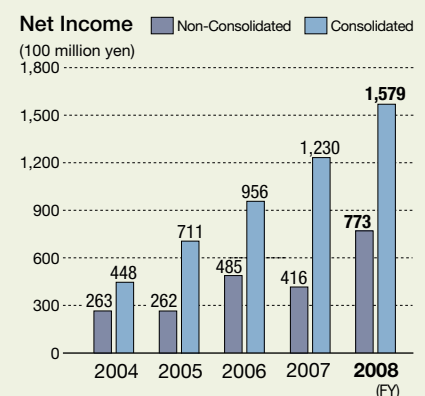
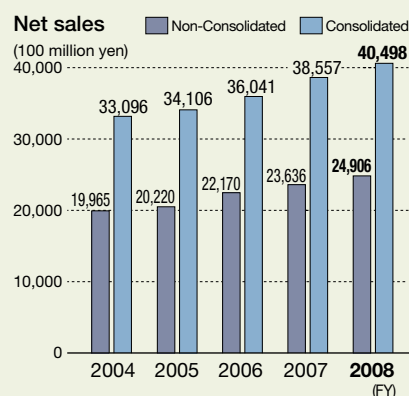
Economic Benefits from Environmental Protection Activities (Real Benefits)			
Item	Amount	Year-on-Year Change	Main Benefits
Earnings	40.7	10.9	Profit from the sale of valuable resources accompanying the recycling of scrap metal, etc.
	25.2	7.1	
Savings	37.9	6.3	Economizing on electric bills through high-efficiency equipment, Economizing on water bills through the reuse of water cutting the consumption of packaging wood through its return, etc.
	18.7	3.0	
Total	78.6	17.2	
	43.9	10.1	

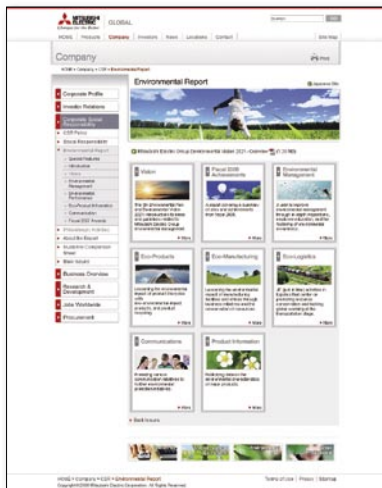
Economic Benefits from Environmental Consideration in Products and Services ²		
Item	Amount	Main Products
Customer Economic Benefits	1,176.8	Improved generation efficiency of turbine generators, total heat exchange ventilators (Lossnay), energy efficient refrigerators, air conditioners, electrical discharge machines, elevators with inverters, etc.
Environmental Improvement Effects	1,159.1	
	30.0	
	29.7	

² Exclude Overseas affiliates

Corporate Profile (As of March 31, 2008)

Company Name: Mitsubishi Electric Corporation
 Headquarters Location: Tokyo Building, 2-7-3, Marunouchi, Chiyoda-ku, Tokyo 100-8310, Japan
 Established: January 15, 1921
 Paid-in Capital: ¥175,800 million
 President: Setuhiro Shimomura
 Number of Employees: Consolidated: 105,651
 Non-consolidated: 27,803
 Number of Affiliated Companies: Subsidiaries: 147
 Affiliates: 43
 Business Segments: Energy and Electric Systems, Industrial Automation Systems, Information and Communication Systems, Electronic Devices, and Home Appliances





Mitsubishi Electric Group Environmental Information Disclosure

<http://Global.MitsubishiElectric.com/company/csr/index.html>

The Mitsubishi Electric Group has published the Environmental Sustainability Report 2008 on its website. This report showcases our corporate social responsibility (CSR) initiatives, and our accomplishments in fiscal 2008, and presents a special feature on our initiatives in confronting global warming. This is just one way we have taken advantage of the capabilities of the Internet to post content, including video.

 **MITSUBISHI ELECTRIC CORPORATION**
<http://Global.MitsubishiElectric.com>

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