Pioneer

Pioneer Group Environmental Report 2010

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Editorial Policy

- This report has been created for general readers to promote Pioneer's environmental conservation activities in the global community. We aim to fulfill our role as a responsible corporation based on opinions and criticism from the public.
- During the production of the environmental report, we referred to the GRI* Guidelines and the Environmental Reporting Guidelines 2007 from the Ministry of the Environment. With the guidelines as our guiding principle, we will continue to strive for ever greater accuracy.
- The GRI Guidelines require disclosure of corporate information from three aspects, economic, environmental and social. This report covers the environmental aspect.

* GRI (Global Reporting Initiative) is an international organization established to improve the quality of corporate communications so as to realize sustainable development. (http://www.globalreporting.org/)

Environmental Impact Data

- The period covered by the data is FY2010 (April 2009 - March 2010), but whenever possible, the latest events have been included even if outside this period.
- Expansion of the range of the data and scrutiny of the figures has caused some changes from the figures released last year.
- There may be some discrepancies between subtotals and totals due to rounding off.
- The scope of this data is as follows. (Site name is as of March in 2010.)

Japan
- PIONEER CORPORATION
  - ○HEADQUARTERS (KAWASAKI, KANAGAWA)
  - ○MEGURO PLANT, the Company's former headquarters
  - ○KAWAGOE PLANT
  - ○CORPORATE R&D LABORATORIES
  - ○KANTO MATERIAL CENTER
- TOHOKU PIONEER CORPORATION (HEADQUARTERS, YONEZAWA PLANT, TENDO MINAMI PLANT)
- MOGAMI DENKI CORPORATION
- TSE CORPORATION
- PIOTECH, INC.
- PIONEER MICRO TECHNOLOGY CORPORATION
- PIONEER DISPLAY PRODUCTS CORPORATION (SHIZUOKA HEADQUARTERS, NIIKE PLANT)
- PIONEER COMMUNICATIONS CORPORATION
- TOWADA ELECTRONICS CORPORATION
- PIONEER SERVICE NETWORK CORPORATION World Parts Center
- PIONEER FINETECH CORPORATION
- PIONEER FA CORPORATION

NORTH AMERICA
- PIONEER NORTH AMERICA, INC. USA [PNA]
- PIONEER ELECTRONICS SERVICE INC. USA [PSE]
- PIONEER AUTOMOTIVE TECHNOLOGIES, INC. USA [PAT]
- PIONEER ELECTRONICS OF CANADA INC. CANADA [POC]
- PIONEER SPEAKERS, S.A.DE C.V. MEXICO [PSSA]

SOUTH AMERICA
- PIONEER DO BRAZIL LTDA. BRASIL [PBL]

EUROPE
- PIONEER EUROPE NV. BELGIUM [PEE]
- PIONEER TECHNOLOGY PORTUGAL SA PORTUGAL [PEP]
- PIONEER FRANCE SAS FRANCE [PFS]
- PIONEER SCANDINAVIA AB. SWEDEN [PES]
- PIONEER BENELUX BV NETHERLANDS [PEB]
- PIONEER DENMARK A/S. DENMARK [PDS]
- PIONEER ELECTRONICS DEUTSCHLAND GMBH. GERMANY [PED]
- PIONEER GB LTD. UK [PGB]
- PIONEER NORGE A/S NORWAY[PEN]
- PIONEER ITALIA S.P.A. ITALY [PEI]
- PIONEER ELECTRONICS IBERICA SA [ESP]

ASIA
- PIONEER ELECTRONICS ASIACENTRE PTE. LTD. SINGAPORE [PAC]
- PIONEER TECHNOLOGY [MALAYSIA] SDN.BHD. MALAYSIA [MPT]
- PIONEER MANUFACTURING (THAILAND) CO., LTD. THAILAND [PTM]
- TOHOKU PIONEER (THAILAND) CO., LTD. THAILAND [TPT]
- TOHOKU PIONEER (VIETNAM) CO.,LTD. VIETNAM [TPV]

CHINA
- PIONEER CHINA HOLDING CO., LTD. [PCH]
- PIONEER TECHNOLOGY (SHANGHAI) CO., LTD. [PSG]
- PIONEER TECHNOLOGY (DONG GUAN) CO., LTD. [PTD]
- DONGGUAN MONETECH ELECTRONIC CO., LTD. [MND]
- PIONEER ELECTRONICS (SHANGHAI EXPORT ZONE) CO., LTD. [PGE]
- PIONEER (HK) LTD.[PHK]
- SHANGHAI PIONEER SPEAKERS, CO., LTD. [SPS]
- MOGAMI (DONG GUAN) ELECTRONIC CO., LTD. [MDE]

OCEANIA
- PIONEER ELECTRONICS AUSTRALIA PTY. LTD. [PTY]

True Integration of Corporate and Environmental Preservation Activities Seeking to "Move the Heart and Touch the Soul" of People Everywhere

In recent years there have been astonishing natural disasters around the world, which may well be at least partly attributable to the rapid climate change resulting from global warming. In response to this growing threat, in September 2009 the Prime Minister of Japan showed global leadership at the UN Summit on Climate Change in New York by announcing in a speech at the opening ceremony that Japan will aim to reduce emissions by 25% by 2020, compared to the 1990 level.
Pioneer is facing an exceedingly difficult business environment today. We are focusing our efforts on achieving our medium-term management plan based on the growth strategy of our core business area in car electronics. Our new HDD-based "Raku-Navi" lineup of car navigation systems - developed to deliver on the key words of ecology and economy - offers high performance and superior operability to help customers realize what we call "Eco Driving." True to our name, Pioneer has a heritage of providing a wide range of world-first and industry-first products to the market. The current challenging economic conditions only strengthen our mission to provide the people of the world with the products they need. Needless to say, as shown by products like Raku-Navi, we are working to be "the Pioneer of environmental initiatives," as well.
Pioneer's corporate philosophy is "Move the Heart and Touch the Soul." By actively promoting true integration of our corporate and environmental preservation activities, we believe we can help to recover the irreplaceable natural beauty of the Earth, and that this, in turn, will truly "Move the Heart and Touch the Soul" of people everywhere.
I look forward to receiving your comments on our corporate activities.

Susumu Kotani
President
October 2009

Initiatives to Combat Global Warming

The Pioneer Group is participating in the Voluntary Action Plan on the Environment of the Japan Business Federation (Nippon Keidanren). In all its corporate activities, the company has worked toward the electrical and electronics industry's target of a 35% reduction in CO_2 emissions per unit of actual production in 2010, compared to the base year of fiscal 1990.(*1) In fiscal 2010, the company expects to surpass this target by achieving a 36% reduction.

Reducing the Environmental Impact of Products

Pioneer is promoting environmentally friendly design for the products that it provides to customers, emphasizing features for saving energy, reducing chemically hazardous substances, and resource saving. With the goal of reducing impact on the environment and improving environmental quality, the company is quantifying environmental loads and making the necessary improvements throughout the entire product lifecycle. This lifecycle covers activities from R&D, product planning, design, production, and sales, to consumer use, after-sales service, disposal, and recycling. The company is promoting research and product planning that creates and meets new demand, especially in its core business of car electronics. As a company known for its car navigation and car audio-visual systems, Pioneer is taking on the challenge of using environmental technologies to help build an automotive culture that emphasizes not only safety and reliability, but also environmental issues.

Corporate Activities Aimed at Reducing Environmental Impact

In order to improve the results of environmental activities, it is vital to promote strong and efficient environmental management. Since the then-named Tokorozawa Plant obtained ISO 14001 environmental management system certification in 1996, other Pioneer sites in and outside Japan have gone on to achieve the same. Today, these systems are being integrated group-wide. The environmental management systems for all business sites of Pioneer Corporation were integrated in 2007, followed by the systems for all sites of Pioneer Group companies in Japan in 2009. As a result, the entire organization has been working together to achieve even higher targets. The systems for group companies outside Japan will also be consolidated, focusing on four main hubs. The company is adopting integrated environmental management systems with the aim of achieving the efficient mechanisms that Pioneer is known for, including the sharing of strategic targets and expertise in how to achieve them across the Pioneer Group's environmental preservation initiatives. Pioneer is committed to reinforcing its environmental governance to realize even better results for its group-wide environmental initiatives.

(*1)Real output: Calculated by dividing the production output for each fiscal year by the Bank of Japan Domestic Corporate Goods Price Index for electronic products, with fiscal 1990 as the base year. The figure for fiscal 2008 was 0.443.

Global Environmental Issues

This is a representation of the Earth at night as it might appear when viewed from space. The bright areas are areas where lights have been switched on. They are an indication of just how much energy we are consuming even at night. Since the Industrial Revolution of the 18th and 19th centuries, technical progress has succeeded in bringing ever more comfort and convenience into our lives. Yet most of us gave no thought to the behind-the-scenes destruction that we were unwittingly wreaking on the global environment. As a result, we now find ourselves facing an array of daunting challenges, from global warming and depletion of natural resources to pollution by environmentally hazardous substances. To enable future generations to enjoy the benefits of the Earth, we must tackle these environmental issues head-on.

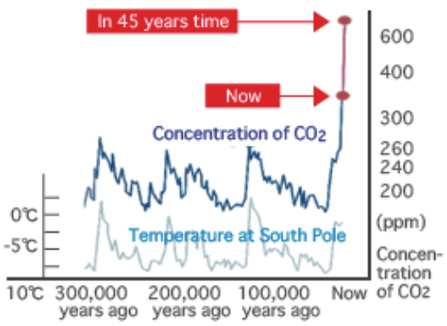
Source: NASA / This photo was created from several images of the Earth at night taken by weather satellite.

Global Warming

The average global land temperature is rising at a rate of approximately 0.74℃ per century. It is generally agreed that global warming is caused by the increasing concentration of CO_2. The resulting imbalance has wide-ranging impacts, damaging the ecosystem, bringing extreme weather conditions and causing the loss of low-lying land through rising sea levels.

Now: The average temperature is higher than that recorded at any time in the past 300,000 years.
In 45 years time: Failure to take immediate action now to bring about change is predicted to result in the level of CO_2 shown in the figure.
IPCC: Jointly established in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP)

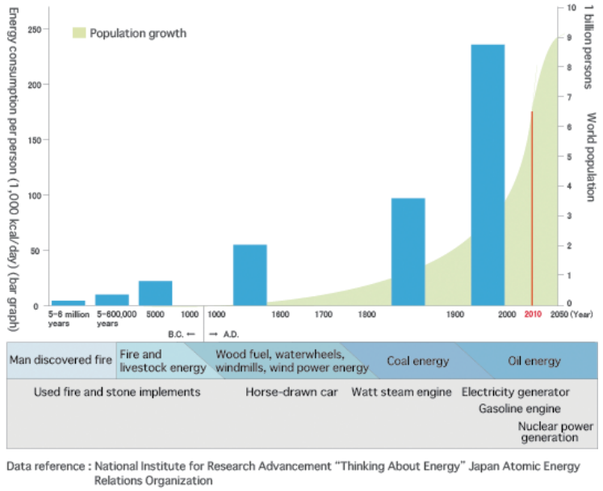
CO_2 concentrations and average global temperatures (over the past 300,000 years)



Source: IPCC Third Assessment Report

Depletion of Natural Resources

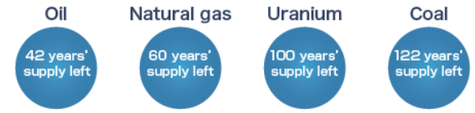
Relationship between humans and energy



Data reference : National Institute for Research Advancement "Thinking About Energy" Japan Atomic Energy Relations Organization

Development following the Industrial Revolution which started at the end of the 18th century was propelled by fossil fuel energy and led to a population explosion in the 20th century. This population explosion, in turn, is the source of the issues now confronting mankind, from environmental destruction such as global warming and depletion of natural resources to problems of energy and food security.

Oil is not available in inexhaustible supply, as it was once said to be. Nor are other natural resources limitless. We must leave as much as possible of these greatly depleted resources to future generations. To achieve this goal, development of technologies for safe nuclear power generation, production of fuel cells, etc. is essential.



* Number of years as of end of 2008.

Source: Energy in Japan 2010, Agency for Natural Resources and Energy, METI
Original Source: BP Statistical Review 2009 (Oil, Natural Gas, Coal:2008) OECD/NEA-IAEA URANIUM 2007 (Uranium:2007)

Pollution by Environmentally Hazardous Substances

Air pollution, ozone depletion, water pollution, soil contamination, erosion of biodiversity and health damage are just some of the problems caused by the effects of environmentally hazardous substances used by man, such as cadmium and chlorofluorocarbons. In the natural world, animals, water and air form a complex and mutually supportive ecological network. There is a need for appropriate worldwide management of chemical substances that do not degrade easily.

Japanese rice-fish threatened by water pollution

Biodiversity

Species are disappearing at an unprecedented speed. Erosion of biodiversity is not simply a matter of a decline in the number of species; it means the breakdown of the mutually complementary relationship of living organisms, in other words, the collapse of the ecosystem. This is a critical issue for human beings who are at the top of the ecosystem. The cause of this breakdown is linked to various environmental issues such as global warming, acid rain, deforestation and pollution of the oceans.
Prior to the 10th Conference of the Parties to the Convention on Biological Diversity (COP 10) scheduled for October 2010 in Nagoya, the Japanese government passed the Basic Law on Biodiversity in May 2008. Pioneer continues to work toward a balance between conservation of biodiversity and sustainable use from a legal perspective. Pioneer views reduction of greenhouse gases as the greatest challenge in its common biodiversity strategy and is striving to protect biodiversity through reduction of CO_2 emissions generated at its facilities and during use of its products. In addition, as measures focused on conservation and sustainable use, Pioneer employees and their families promote forest conservation and protection of biodiversity at Pioneer Forest, cooperated with Saitama Agriculture and Forestry Corporation.

Environmental Vision and Environmental Policies

Pioneer has adopted environmental conservation activities as a corporate mission and an important business challenge. Improvement of business efficiency, increased productivity and creation of corporate values are vital for business activities, and environmental conservation activities should share the same degree of importance.

Environmental Vision

True Integration of Corporate Activities and Environmental Preservation Activities

The Pioneer Group has adopted environmental preservation activities as a corporate mission and an important business challenge. The Group makes every effort to reduce the environmental impact in every process of the product lifecycle, from research and development to planning, design, manufacturing, sales, servicing and disposal.
Reducing environmental impact, i.e. improving environmental quality, is just as important as product quality such as QCD measures in manufacturing.
Pioneer has established the concept of environmental quality in its business processes as a contribution to the creation of a sustainable society and actively promotes the true integration of corporate activities and environmental preservation activities. Restoring the precious and irreplaceable Earth will move the hearts of many people.

Pioneer Group Charter for Corporate Operations

"Move the Heart and Touch the Soul" is the philosophy of the Pioneer Group. According to this philosophy, we, all the executives and employees of Pioneer, aim to continue our pioneering creation of new markets and conducting our business with integrity. We will operate our corporate activities based on a high standard of ethics, and aim to keep winning the confidence of our customers by contributing to society as responsible corporate citizens.

- **We will provide products and services that are useful, reliable and safe.**
- **We will operate our corporate activities fairly.**
- **We will continue efforts to conserve materials and energy, and reduce impact on the Earth's environment.**
- **We will strive for fair disclosure of information about our corporate activities.**
- **We will undertake effective risk management to deal with unforeseen incidents as quickly and sincerely as possible.**
- **We will properly manage and protect our assets and rights.**
- **We will endeavor to contribute to society from a global perspective.**
- **We will aim to pursue our corporate activities, always with respect for humanity.**

Environmental Policies

Philosophy of Environmental Preservation

The Pioneer Group will make efforts to always contribute to maintaining and realizing a rich and safe global environment through its corporate activities, based on the general understanding that it is one of its corporate missions to maintain, improve, and hand over the global environment to the next generation.

Basic Policies of Environmental Preservation

1. Compliance with Laws and Regulations
   The Pioneer Group will comply with all applicable laws and regulations, and agreed requirement items in connection with environmental protection, and when necessary, establish voluntary control standards to reduce the negative impact of its activities on the environment.

2. Preservation of Environment
   Ozone depleting substances and hazardous substances of environmental concern should be banned from use, switched with a substitute substance, and its discharge restrained. Business activities should consider effects on the ecosystem to reduce such environmental impact, and prevent contamination at the same time.
   Furthermore, efforts to reduce greenhouse gas emissions and saving of natural resources should be taken into account.

3. Eco Design Product Development
   From the designing stage of products, reduction of hazardous chemicals containment, as well as in parts, materials procurement stage, and until the disposal of the product on a total life cycle basis, attention to environmental evaluation and promotions in saving resources, energy, and recycling points for the "product assessment" should be made. Efforts to develop new eco-friendly technologies shall also be implemented.

4. Objectives Management
   The Pioneer Group will set goals with subjects and targets to reduce environmental impact by compliance to regulations and preservation of the environment in its products development, making best effort to achieve these targets.

5. System Promoting Environmental Protection
   An All-Pioneer system that contributes to the promotion of environmental protection will be established under the leadership of the officer in charge of the Environmental Management Group of Pioneer Group Headquarters. For such purpose, each division will establish corresponding organizations and optimize the environmental management system.

6. Educational Training
   The Pioneer Group will promote to cultivate environmental protection and its policies to all its employees and business partners, including specialized education when necessary.

7. Continuous Improvement
   The Pioneer Group will continuously maintain and improve its environmental management system and protection activities performance, by understanding its activities and conducting appropriate measures in accordance with the environmental audits and management reviews.

8. Disclosure and Communications
   The Pioneer Group will continuously disclose environmental information actively, in every field of its products and corporate activities, to improve environmental activities communicating with the stakeholders.

Pioneer Environmental Mark

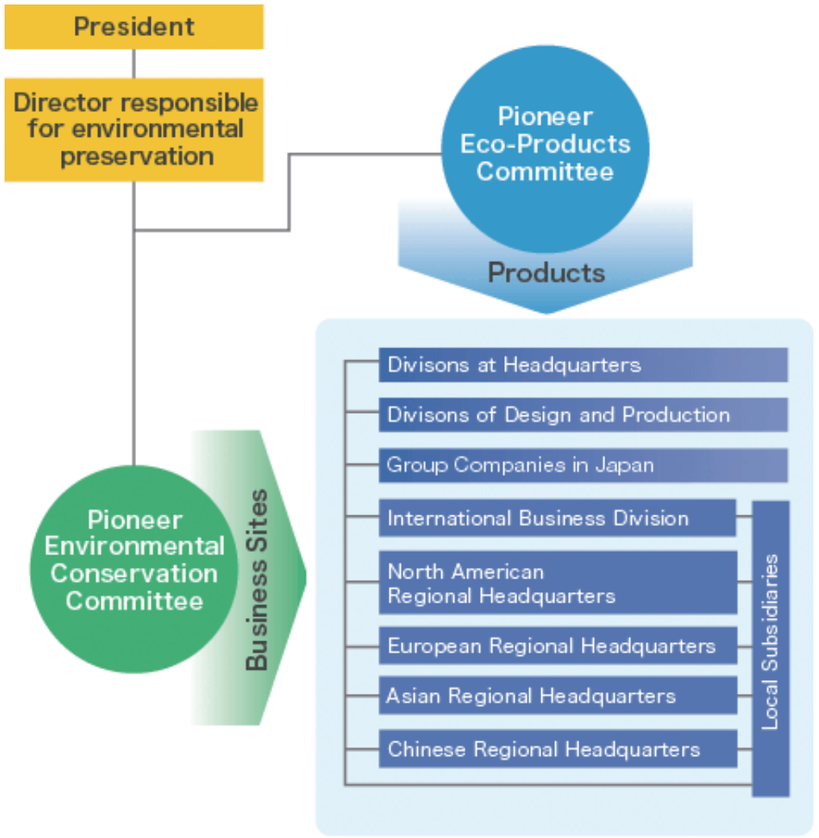
The Pioneer Environmental Mark, a motif of the Earth and two leaves, represents the Earth, the environment and living in harmony. Displayed in Pioneer catalogs, environmental education posters and related materials, the Company's environmental symbol is used throughout the world as both an education tool to raise environmental awareness within the Group and a promotion tool to advance Pioneer's green credentials externally.

Environmental Management Activities

With the aim of strengthening its environmental governance, Pioneer has created a structure that will enable integration of the environmental management systems promoted at each of its facilities and subsidiaries in Japan, thereby encouraging organization-wide activities toward common goals. In future, integration will be extended to cover all subsidiaries worldwide, thereby further enhancing the results of the environmental activities of the entire Pioneer Group.

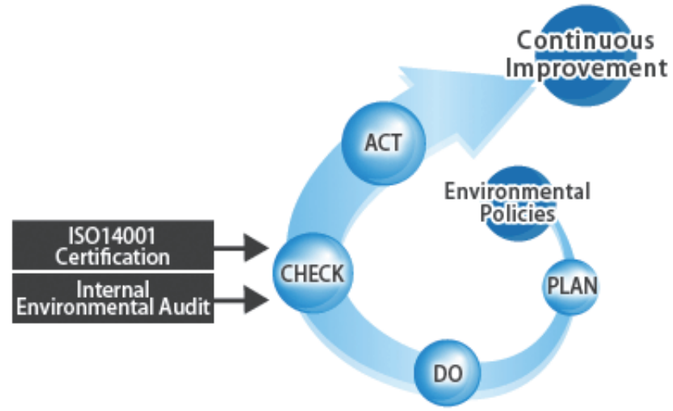
Organization of Pioneer environmental preservation activities

In 1991, Pioneer launched the Pioneer Environmental Conservation Committee to serve as a group-wide organization to discuss and take action on environmental issues related to business activities at Pioneer facilities, and moreover to enhance the group's efforts to produce environment-friendly products, focusing particularly on reducing the toxic chemicals contained in products. In 2006, the Company inaugurated the Pioneer Eco-Products Committee, which cross-divisionally controls those environmental preservation activities related to products. This current two-committee structure serves as horizontal and vertical axes in promoting overall activities of Pioneer's environmental preservation system to cover both facilities and products.



Environmental Management System

Pioneer is building an environmental management system based on ISO 14001 international standards. This system is used effectively in Pioneer Group companies worldwide to implement environmental preservation activities.



Creating opportunities through environmental audits

We conduct internal audits regularly at each facility to check the effectiveness of the environmental management system and promote continuous improvement. The Pioneer Group in Japan has some 80 active internal environmental auditors. In addition, our environmental management system is objectively assessed by regular external audit conducted by an ISO 14001 registration body. Problem areas or the need for improvement which are highlighted by the internal and external audits are dealt with appropriately and any measures taken are spread laterally throughout the group to ensure uniform improvement. In addition, self-assessment is conducted at all our facilities throughout Japan and this self-inspection creates opportunities for us to notice areas that need improvement and implement measures on our own initiative.

Main results of external auditing

In September 2009, Pioneer Corporation and its domestic group companies acquired ISO 14001 certification, an international standard for environmental management systems, for all their domestic facilities. Although an integrated audit revealed one minor fault, corrective action was taken and certification was acquired. In addition, 37 items to be monitored were highlighted. Efforts are being made to share information between all facilities in order to ramp up environmental activities in response.

Integrated Environmental Management System

With the growing importance of environmental preservation activities, particularly measures to combat global warming, it is essential to promote strong, efficient environmental management in order to achieve good results. At such a time, enhancement of the environmental governance of the Pioneer Group is a major issue. As the first step, the ISO 14001 environmental management systems at Pioneer Corporation's four sites (Head Office, Kawagoe, Kawasaki and Corporate Research & Development Laboratories) were integrated in August 2007. Integration enables the business sites to rigorously carry out Plan, Do, Check and Act (PDCA) activities, and ensures that all these sites work together toward more ambitious targets. In addition, integration has been extended to group companies in Japan in 2009. This is an opportunity to unify the Pioneer Group's environmental policy for an integrated environmental management system. Looking forward, integration will be extended to group companies worldwide, thereby further enhancing the results of the entire Group's environmental conservation activities.

*PDCA stands for Plan, Do, Check and Action.

Environmental Management Activities

ISO14001 Certification Status (As of March 2010)

[JAPAN]

- PIONEER CORPORATION (HEADQUARTERS)
  - ○ PIONEER CORPORATION KAWAGOE PLANT
- TOHOKU PIONEER CORPORATION HEAD OFFICE, TENDO PLANT
  - ○ TOHOKU PIONEER CORPORATION TENDO SOUTH PLANT
  - ○ TOHOKU PIONEER CORPORATION YONEZAWA PLANT
  - ○ MOGAMI DENKI CORPORATION
  - ○ TSE CORPORATION
  - ○ PIOTECH, INC.
- PIONEER MICRO TECHNOLOGY CORPORATION
- PIONEER COMMUNICATIONS CORPORATION
- TOWADA PIONEER CORPORATION
- PIONEER INVESTMENT CORPORATION
- INCREMENT P CORPORATION
- PIONEER SERVICE NETWORK CORPORATION
- PIONEER MARKETING CORPORATION
- PIONEER SOLUTIONS CORPORATION
- PIONEER SYSTEM TECHNOLOGY, INC.
- PIONEER MEDIA CREATES CORPORATION
- TECHNO ACCESS CORPORATION
- FUKUIN CORPORATION
- PIONEER WELFARE SERVICES CO., LTD.
- PIONEER FA CORPORATION
- PIONEER FINETECH CORPORATION
- TECHNICAL AUDIO DEVICES LABORATORIES, INC.
- PIONEER WORKERS UNION
- PIONEER PENSION FUND
- PIONEER HEALTH INSURANCE SOCIETY

[NORTH AMERIC]

- PIONEER NORTH AMERICA,INC. [PNA]
- PIONEER ELECTRONICS(USA)INC. [PUSA]
- PIONEER ELECTRONICS SERVICE INC. [PSE]
- PIONEER AUTOMOTIVE TECHNOLOGIES,INC. [PAT]
- PIONEER STRATEGIC BUSINESS SERVICES,INC. [PBS]
- PIONEER ELECTRONICS OF CANADA,INC. [POC]
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Environmental Accounting

Pioneer has kept environmental accounts since the internal Environmental Accounting Committee was formed in October 1999. Currently the list has a total of 27 companies, including 9 in Japan and 18 overseas. Pioneer discloses its environmental accounting results as an important tool in the promotion of corporate environmental preservation activities.

Pioneer's environmental accounting defined

Pioneer has established its own Group-wide Environmental Accounting Guidelines based on the "Environmental Accounting Guidelines (2005 Edition)" published by Japan's Ministry of the Environment. These guidelines stipulate that environmental investment depreciates in fixed amounts over a five-year period and the economic benefit extends to five years. Our environmental investment calculations, however, reflect figures from 1999 onwards, the year that Pioneer began keeping environmental accounts. It is possible to make comparisons in green purchasing as to when consideration has been made for the environmental or not; furthermore, only items which show a striking difference are calculated (low-pollution vehicles, LCD monitors, recycled toner cartridges). One hundred percent of wage costs are accounted for in the division that deals with the environment full-time, and other notable environmental activities are accounted for based on a pro rata or time-multiplied wage rate. Economic benefits such as sale profits from recycling and cost savings (savings on electricity and waste disposal expenses, external consultation fees, environmental impact measurement fees, etc.) are accounted for, but so-called "surmised benefits" (from risk avoidance) are not calculated.

Results in FY2010

Results: investment ¥309 million, expenses ¥1,909 million, economic benefit ¥284 million. In addition, there were no environment-related investment/loans*.

*Environment-related investment/loans: Investment and loans under the Environmental Consideration Law that take into consideration the environment

Environmental costs

(Millions of Yen)

Category	Description	Details	Investment FY2010/3	Expenses FY2010/3
Plants	1. Anti-pollution costs	Wastewater treatment and management, water quality analysis, smoke treatment, etc.	10	201
	2. Global environmental preservation costs	Energy saving-related costs (depreciation of solar power generation, demand control, inverter control, power measuring systems introduction, etc.)	47	152
	3. Resource recycling costs	Waste disposal and recycling costs	0	152
Upstream and downstream costs	Cost of reducing environmental impacts generated upstream or downstream in production and servicing activities	Difference from environment-friendly products (elimination of styrene foam, use of lead-free soldering, energy saving components, etc.) x no. of units produced, green procurement by introduction of EDX equipment, green purchasing	0	76
Management activities	Cost of acquiring and maintaining ISO 14001 certification, education and training costs, PR costs	Cost of acquiring and maintaining ISO certification, environmental organization personnel expenses Education and training costs, PR activities, cleanup activities	8	509
R&D	Environmental preservation costs in R&D activities	Cost of developing technologies including environmental factors (high-performance organic EL displays, ultrahigh-density storage, etc.)	244	802
Social activities	Environmental preservation costs in social activities	Voluntary environmental preservation activities (Zero Refuse Campaign, etc.) and donations to environmental groups	0	17
Environmental damage	Cost of environmental damage	No fines or charges	0	0
		Total	309	1,909

Environmental Management Activities

Economic benefits

(Millions of Yen)

Economic savings		
Category	Details	FY2010/3
1. Savings due to environmental preservation (energy saving, pollution prevention, etc.)	Power reduction by purchase of energy saving equipment, upgrading, etc.	194
2. Savings due to resources recycling (resource saving, recycling, waste disposal, etc.)	Reduction of waste disposal costs	53
	Profits from sales of valuable resources	23
3. Upstream and downstream savings (in procurement, production, distribution, green purchasing)	Reduction in component unit price, reduction in distribution costs, green purchasing effect	14
	Total	284

Environmental Risk Management

Strict voluntary management standards

In the unlikely event of an accident at a facility that resulted in environmental contamination of the surrounding area, it will take a lot of time and money to restore the contaminated environment and may cause serious problems and loss to the neighboring residents and many other concerned people. In order to avoid such risk, Pioneer has established and operates voluntary management standards that are stricter than provided by law.
There were no violations of the law at Pioneer's domestic facilities in FY2010. In addition, no environment-related complaints or requests were made to any facilities. There was, however, one case of ground pollution at a facility that had been shut down. Pollution by a hazardous substance was detected during a ground pollution study, and the government was notified. Study results indicated that the pollution did not extend to groundwater or outside the site. Cleanup efforts are currently underway.

Implementation of emergency response training

For facilities likely to cause major environmental impact in the event of an accident (such as crude oil tanks), we carry out emergency response training to handle every conceivable emergency. We have also devised a system for taking steps to quickly minimize the impact and promptly notifying the local authorities in which the concerned facility is located.
An emergency occurred in March of FY2010 at a domestic facility, where a pipe broke while being painted at a chemical tank yard. Although the chemical stored in the tank had been emptied, a residual amount leaked into the protective barrier. Appropriate measures were taken to rectify the situation. We take appropriate steps to immediately deal with any emergency and investigate the cause in an effort to prevent any recurrence.

Thorough management of PCBs

PCBs (polychlorinated biphenyls) were used in the past as insulating oil in appliances such as electrical condensers and fluorescent light ballasts, but improper handling can lead to human injury and damage. Until appropriately disposed of, PCBs must, by law, be securely stored and reported to the authorities to prevent leakage or loss.
As of June 2010, 36 pieces of equipment containing PCBs are being stored and awaiting disposal.

Risk management by PRTR

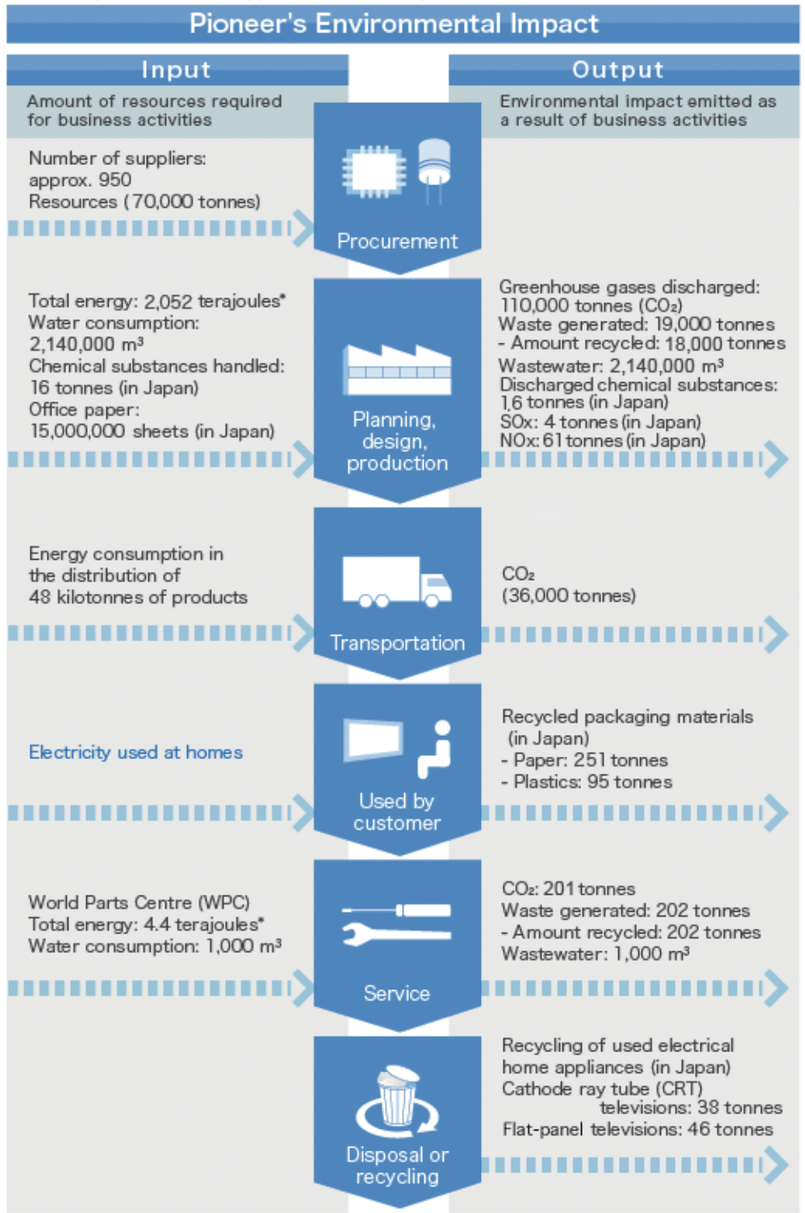
Data submission under the PRTR Law in Japan began in FY2002. In accordance with the Law, the Pioneer Group collects and manages environmental data for each facility and reports to the prefectural authorities. Utilizing this data, we are committed to raising the level of environmental risk management and reducing environmental ipact.

Pioneer's Environmental Impact

Pioneer products go through various planning, design and manufacturing processes before they are delivered to the customer, used and then disposed of or recycled at the end of their useful life. Various impacts on the environment are unavoidably generated in each process. Pioneer continues to devote every effort to reducing such environmental impacts.

Material Balance

Figures in parentheses are approximate, based upon estimates　　* Tera is defined as 10^{12}



Pioneer's Environmental Impact

Trends in Past 3 Years

Input

		Unit	FY2008/3	FY2009/3	FY2010/3
Procurement	Material suppliers	Companies	1,159	1,100	950
	Resources	10,000 tons	15	10	7
Planning, design, production	Total energy	TJ	5,643	4,133	2,052
	Water consumption	10,000 m^3	521	414	214
	Chemical substances handled	Tons	86	42	16
	Office paper	10,000 sheets	2,890	2,490	1,500
Transportation	Goods transported	10,000 tons	11.5	7.7	4.8
Service (WPC)	Total energy	TJ	6	4.7	4.4
	Water consumption	m^3	1,100	1,100	1,000

Output

		Unit	FY2008/3	FY2009/3	FY2010/3
Planning, design, production	Greenhouse gases discharged	10,000 tons	27.3	21	11
	Waste generated	10,000 tons	3.4	2.6	1.9
	Amount recycled	10,000 tons	3	2.3	1.8
	Wastewater	10,000 m^3	454	414	214
	Waste chemical substances	Tons	0	0	1.6
	SOx	Tons	5	4	4
	NOx	Tons	49	25	61
Transportation	CO_2	10,000 tons	7.3	4.1	3.6
Used by customer	Recycled packaging materials (in Japan): paper	Tons	75	103	251
	Recycled packaging materials (in Japan): plastics	Tons	101	169	95
Service (WPC)	CO_2	Tons	223	214	166
	Waste generated	Tons	91	95	202
	Amount recycled	Tons	91	95	202
	Wastewater	m^3	1,100	1,100	1,000
	Recycling of used electrical home appliances (in Japan): CRT TVs	Tons	40	34	38
	Flat-panel televisions	Tons	-	-	46

Targets, Plans and Performance

The Pioneer Group is working to prevent global warming, to recycle resources and to reduce environmentally hazardous substances. In FY2010 we succeeded in achieving twelve out of our fourteen targets. Based on this result, we will set targets for our activities in FY2011 and FY2013.

Main Targets and Results in FY2010

Category	Objective	Target	Results	Self assessment
Eco products	Global warming prevention	Strengthen CAR NAVI eco-drive support functions and performance	Reduced CO_2 emissions by approximately 15%, through an improved traffic congestion avoidance system that accesses traffic information covering a greater area	○
		・Deliver products compliant with Lot 6 EuP directives ・Achieve compliance with various countries energy-saving regulations	Introduced products worldwide that meet energy-saving regulations in each country, such as standby power consumption	○
		・Attain a cumulative total of three or more Super Advanced Eco-Models ・Achieve a new product ratio of 20% or more for Advanced Eco-Models	・Super Advanced Eco-Models: No models applicable ・Advanced Eco-Models: 31% attainment	△
		Post LCA data for major models on the Company's website	Five key models announced on the Company's website	○
	Resource recycling(3Rs)	Promote efforts to reduce the size and weight of automotive products	・Approximately 53% size and weight reduction achieved with the GM-D6400 Digital Power Amplifier compared with previous model. ・Packaging volume for Raku-Navi reduced by approximately 18%	◎
	Reduction of environmentally hazardous substances	Expand the use of VOC-free adhesives in such products as car speakers	VOC-free adhesive introduced on all OEM models planned for this fiscal year	○
Eco factory	Global warming prevention	・Reduce greenhouse gas (GHG) emissions after a review of the reduction plan according to changes in the production system ・Reduce emissions per unit of actual production*1 by 36% or more compared with fiscal 1991, averaged over the period of the Kyoto Protocol; formulate a mid- to long-term reduction plan	Achieved 66% reduction, on track to achieve reduction targets for the 2008 to 2012 period	○
	Resource recycling(3Rs)	Reduce volume of paper used by office equipment and continue previous fiscal year's reduction of 28.9 million sheets (A4 equivalent)	Achieved 40% reduction compared with previous fiscal year	◎
Eco distribution	Reduction of environmentally hazardous substances	Continue to meet target in Japan and achieve zero emissions overseas	Achieved targets at all domestic operating bases and overseas operating bases	○
	Green purchasing	・Expand green purchasing for items other than production materials ・Achieve a green purchasing ratio of 95% or more	Achieved green purchasing ratio of 87%	×
	Improve product distribution and emissions per unit of sales	Reduce energy used in distribution by 1% compared with the previous fiscal year, in line with the Act on the Rational Use of Energy	Actual emissions per unit of sales*2 deteriorated 5.8%	×
Environmental communication	Public relations activities	Publish and distribute the environmental comic series in book form	Published and distributed three environmental comic series on website	○
	Continue activities according to the policy for social action programs	Provide environmental lectures and general education at all business sites	Conducted a series of environmental lectures, general environmental education and training	○
	Environmental andocial activities	Contribute locally by participating in zero garbage measures at all business sites, environmental events, and forest protection activities	Contributed locally through participating in zero garbage measures at all business sites, environmental festivals, and forest protection activities	○

(Note) Self-evaluation standards (broad estimates): ◎ Significantly exceeded the target: 110% or more / ○ Achieved the target: 100% to less than 110% / △ Fell slightly short of the target: 95% to less than 100% / × Failed to meet the target: less than 95%

*1 Emissions per unit of actual production: CO_2 emissions ÷ Real output (calculated by dividing the production output for each fiscal year by the Bank of Japan Domestic Corporate Goods Price Index for electronic products, with fiscal 1990 as the base year). The Goods Price Index for fiscal 2009 was 0.419.

*2 Emissions per unit of sales: CO_2 emissions ÷ Sales (calculated by dividing the sales for each fiscal year by the Bank of Japan Domestic Corporate Goods Price Index for electronic products, with fiscal 2006 as the base year). The Goods Price Index for fiscal 2009 was 0.884.

Future Environmental Targets

Category	Issue	Target for FY2011	Target for FY2013
Targets	Global warming prevention	CO_2 equivalent greenhouse gas emissions Japan: 36% reduction from FY1991 level	CO_2 equivalent greenhouse gas emissions Japan: 36% reduction from FY1991 level
	Resource recycling	Reducing valuable resources/waste materials Japan: 1% reduction from FY2010 level	Reducing valuable resources/waste materials Japan: 1% reduction from FY2010 level
Controls	Global warming prevention	Control of CO_2 emissions from the transport of products, Japan: 1% reduction over previous year per unit of sales	Control of CO_2 emissions from the transport of products, Japan: 1% reduction over previous year per unit of sales
	Resource recycling	Recycling rate for valuable resources/waste material ・Japan: Maintain 99.5% rate or higher ・Overseas: Maintain 99% rate or higher	Recycling rate for valuable resources/waste material ・Japan: Maintain 99.5% rate or higher ・Overseas: Maintain 99% rate or higher
	Chemical substance control	・Control of VOC emissions 30% reduction from FY2001 level ・Control of PRTR substances 60% reduction from FY2001 level	・Control of VOC emissions Target set for FY2011 ・Control of PRTR substances Target set for FY2011
	Atmospheric pollution prevention	SOx and NOx emissions reduction 20% reduction from FY 2005 level	Atmospheric pollution prevention: Target set for FY 2011
	Green purchasing	Green purchasing promotion Maintain guidelines (95%)	Green purchasing promotion Maintain guidelines (95%)

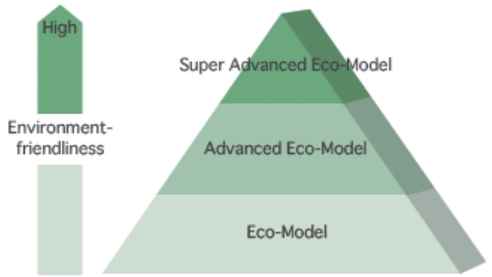
Pioneer considers the delivery of environment-friendly products to customers around the world to be one of its most important missions. The Company focuses on "Prevention of Global Warming", "Recycling of Resources", and "Reduction of Environmentally Hazardous Substances" as primary environmental challenges, aiming to reduce environmental impact through promotions of environment-friendly designs. Environmental impact and product assessment through the Life Cycle Assessment(LCA) enable the Company to continuously enhance the environmental friendliness of its products. In addition, Pioneer stimulates development of environment-friendly products by evaluating compliance with strict company standards relating to environmental friendliness.

Working toward a total lineup comprised of environmentally friendly products

Creation of a Super Advanced Eco-Model

To continually enhance the environment-friendliness of its products, Pioneer has introduced a unique system of evaluating the compliance of newly developed products to given levels of environmental awareness or above.

Evaluation system for environment-friendly products



Super Advanced Eco-Model	Products that exhibit industry leading environmental performance Examples of certified products: ・CYBER NAVI AVIC-VH9990, AVIC-ZH9990, AVIC-H9990 ・Pure Malt Speakers S-A4SPT-PM, S-A4SPT-VP, S-PM300
Advanced Eco-Model	Products that substantially exceed the environmental performance of conventional products Products that have undergone product assessment and that comply with critical requirements of Pioneer's environmental standards Examples of certified products: ・Raku-Navi AVIC-HRZ900 ・CDJ Player CDJ-2000 ・CYBER CONFERENCE SYSTEM CCS PRIME
Eco-Model	Products that exhibit basic environmental performance Products that have undergone product assessment and that comply with essential requirements of Pioneer's environmental standards

Environmental Product Information

Super Advanced Eco-Model certified products

carrozzeria "CYBER NAVI" AVIC-VH9990, AVIC-ZH9990, AVIC-H9990

Pure Malt Speaker series

Green IT Awards
Judging Committee Special Awards

Received the Judging Committee Special Award in the "Green IT AWARD 2010."
Received the Special Award from the Board of Review in the "12th Green Purchasing Award" in 2010.

経済産業省 産業技術環境局長賞

The Pure Malt Speaker series won the METI Industrial Technology & Environment Bureau Director General's Award at the 2009 Resource Recycling Technology & System Award Ceremony sponsored by the Clean Japan Center.

Eco product creation initiatives

Advanced Eco-Model certified products

Car electronics products

Category	Model Name	Model	Starting data of the sales	Principal items of eco friendly design
Car Navigation System	CYBER NAVI	AVIC-VH9900	May. '09	The backup electric current of the product is 3mA or less.
		AVIC-ZH9900		
		AVIC-H9900		
	Raku Navi	AVIC-HRZ990	Oct. '10	
		AVIC-HRZ900	Oct. '09	・Load efficiency of transportation has been improved. ・The backup electric current of the product is 3mA or less.
		AVIC-HRZ880	Oct. '10	The backup electric current of the product is 3mA or less.
		AVIC-HRZ800	Oct. '09	・Load efficiency of transportation has been improved. ・The backup electric current of the product is 3mA or less.
		AVIC-HRV200		Load efficiency of transportation has been improved.
		AVIC-HRV110G	Nov. '10	Product, system, or service which contributes to reduce environmental burden indirectly by using the product. (Smart Loop compatibility improves efficiency to avoid traffic jams, and reduces fuel consumption.)
		AVIC-HRV110		The backup electric current of the product is 3mA or less.
		AVIC-HRV100	Oct. '09	・Load efficiency of transportation has been improved. ・The backup electric current of the product is 3mA or less.
	Raku Navi Lite	AVIC-MRZ99	Oct. '10	
		AVIC-MRZ77		
		AVIC-MRZ66		
		AVIC-MRZ85	May. '10	The backup electric current of the product is 3mA or less.
		AVIC-MRZ90	Oct. '09	・Load efficiency of transportation has been improved. ・The backup electric current of the product is 3mA or less.
		AVIC-MRZ80	Nov. '09	Load efficiency of transportation has been improved.

Category	Model Name	Model	Starting data of the sales	Principal items of eco friendly design
Car AV System, Car Stereo	1D Main Unit	DEH-P01	Jun. '09	The backup electric current of the product is 3mA or less.
		DEH-P940	May. '09	
		DEH-P650	Jan. '10	Load efficiency of transportation has been improved.
		DEH-550		・Load efficiency of transportation has been improved. ・The backup electric current of the product is 3mA or less.
		DVH-P550	Feb. '10	
		DVH-P540	Jan. '09	The backup electric current of the product is 3mA or less.
		DEH-350	Jan. '10	・Load efficiency of transportation has been improved. ・The backup electric current of the product is 3mA or less.
		DEH-340	Jan. '09	The backup electric current of the product is 3mA or less.
		AVH-P900DVA	May. '07	
	2D Main Unit	FH-P530	Mar. '08	
Speaker	Unit Subwoofer	TS-W3010	Jun. '06	Load efficiency of transportation has been improved.
		TS-W2510		
		TS-W2010		
	13 ㎝ Separate 2way Speaker	TS-Z132PRS	Jun. '10	
	Custom Fit Speaker	TS-V171A	Sep. '08	
		TS-C1710A	Oct. '08	
Pre Amplifier	Universal Digtal Pre Amplifier	RS-P99x	Jun. '10	The backup electric current of the product is 3mA or less.
Power Amplifier	Bridgeable 4ch Power Amplifer	RS-A99x		
		GM-D6400	Jan. '10	・Load efficiency of transportation has been improved. ・The backup electric current of the product is 3mA or less.
	Monophonic Power Amplifer	GM-D6100		
	Bridgeable 4ch Power Amplifer	PRS-D8400	Mar. '08	The backup electric current of the product is 3mA or less.
	Bridgeable 2ch Power Amplifer	PRS-D8200		
	Monophonic Power Amplifer	PRS-D8100		
	Bridgeable 4ch Power Amplifer	PRS-A900	Dec. '07	
TV Tuner	Digital TV Tuner	GEX-P90DTV	May. '08	
		GEX-P70DTV		
Souce DVD/CD Player	DVD souce unit	AVX-P90DV		

Eco product creation initiatives

Advanced Eco-Model certified products

Home electronics products

Category	Model Name	Model	Starting data of the sales	Principal items of eco friendly design
iPod Speaker System	DVD SPEAKER SYSTEM FOR iPod	XW-NAV1	Jun. '10	The product with the auto standby function.
	DIGITAL SPEAKER SYSTEM FOR iPod	X-NAS50		
		XW-NAC1	May. '10	
		XW-NAS5	Nov. '09	
Audio Components	AV Multi-Channel Amplifier	SC-LX83	Oct. '10	The standby power of the product is 0.1W or less.
		SC-LX73		
		VSA-LX53	Jul. '10	
		VSA-LX51	Jun. '08	Load efficiency of transportation has been improved.
		VSA-1018AH	Jul. '08	
	Powered Subwoofer	S-LX70W	Oct. '07	The product with the auto standby function.
		S-W1EX	Dec. '05	
	Pure Malt Audio Rack	B-PM1000	Oct. '06	Recycled materials and recycled parts are used in major parts of the products. (except recycled plastic)
	Speaker Stand	CP-PM300	Nov. '06	
Blu-ray Disc Player/Recorder	Blu-ray Disc/DVD Player	BDP-LX91	Dec. '08	The product with the auto standby function.
		BDP-LX71	Nov. '08	
		BDP-LX54	Nov. '10	
		BDP-LX53	May. '10	
		BDP-LX52	May. '09	
		BDP-430	Nov. '10	
		BDP-330	May. '10	
		BDP-320	May. '09	
		BDP-120		
	HDD/BD Recorder	BDR-WD900	Oct. '08	
		BDR-WD700		
DVD Recorder	HDD/DVD Recoder	DVR-WD70	May. '08	
DVD Player	DVD Player	DV-610AV	Jul. '08	
		DV-420V	May. '10	
		DV-410V	May. '08	
		DV-310		
		DV-225V	Apr. '10	
		DV-220V	May. '10	
		DV-120	Apr. '10	

Category	Model Name	Model	Starting data of the sales	Principal items of eco friendly design
AV Accessories	Cordless Headphone	SE-DRS3000C	Jun. '08	Load efficiency of transportation has been improved.
	Inner-ear Headphone	SE-CL33	Jun. '10	
		SE-CE11	Mar. '10	
		SE-CL07-K	Jun. '10	
DVD/CD Writer for PC	Internal DVD/CD Writer	DVR-S17J	Dec. '09	Plant-based plastic and plant-based coating material are used in products, accessories, and packaging materials. (excluding inks used for instruction manuals)
		DVR-S16J	Sep. '08	
		DVR-A16J		
	External DVD/CD Writer	DVR-X162J	Dec. '08	
BD Writer for PC	BD-ROM DVD/CD Writer	BDR-S06J	Oct. '10	・Plant-based plastic and plant-based coating material are used in products, accessories, and packaging materials. (excluding inks used for instruction manuals) ・Load efficiency of transportation has been improved.
		BDR-S05J	Oct. '09	Plant-based plastic and plant-based coating material are used in products, accessories, and packaging materials. (excluding inks used for instruction manuals)
		BDR-S03J	Jan. '09	

Eco product creation initiatives

Home electronics products

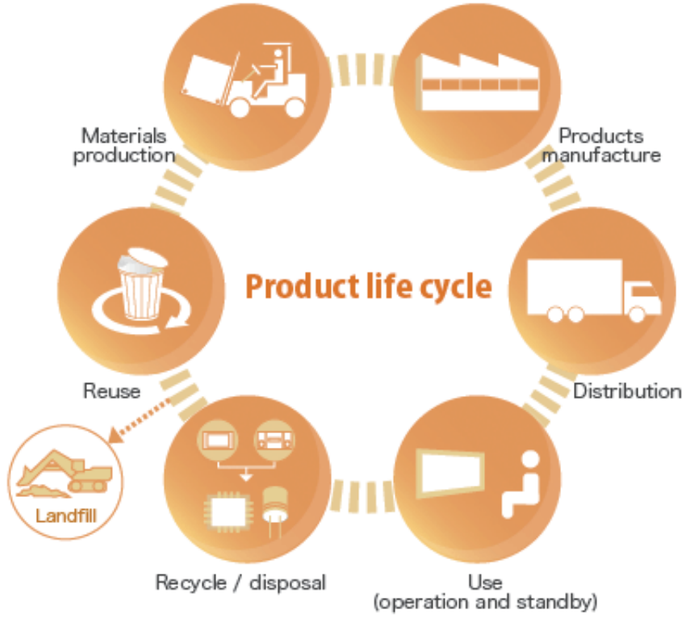
Category	Model Name	Model	Starting data of the sales	Principal items of eco friendly design
DJ Equipment	DVJ Player	DVJ-1000	Sep. '06	Load efficiency of transportation has been improved.
		DVJ-X1	Apr. '04	The standby power of the product is 0.1W or less.
	Video Switcher	VSW-1	Dec. '04	
	SOUND & VISION Mixer	SVM-1000	Jan. '08	
	CDJ Player	CDJ-2000	Nov. '09	The product with the auto standby function.
		CDJ-900	Dec. '09	
		CDJ-850	Aug. '10	
		CDJ-800MK2	Mar. '06	The standby power of the product is 0.1W or less.
		CDJ-400-K	Nov. '09	
		CDJ-400	Dec. '07	
		CDJ-350	Jun. '10	The product with the auto standby function.
		CDJ-200	Apr. '05	The standby power of the product is 0.1W or less.
		CDJ-100S	Sep. '98	
		MEP-7000	Apr. '08	
		CMX-3000	Dec. '01	
	DJ Mixer	DJM-5000	Oct. '09	
		DJM-3000	Apr. '02	
		DJM-1000	Mar. '05	
		DJM-909	Dec. '03	
		DJM-800	Feb. '06	
		DJM-700	Oct. '07	
		DJM-400-K	Nov. '09	
		DJM-400	Mar. '06	
		DJM-350	Jun. '10	・The product with the auto standby function. ・Load efficiency of transportation has been improved.
	DJ Effecter	EFX-1000	May. '05	The standby power of the product is 0.1W or less.
		EFX-500	Sep. '98	
		EFX-500-R	Mar. '05	

Industrial use products

Category (For product information)	Model Name	Model No.	Starting data of the sales	Principal items of eco friendly design
Cyber Conference Solution	Cyber conference system	CCS PRIME	Sep. '08	Product, system, or service which contributes to reduce environmental burden indirectly by using the product.
Business Products Professional Video Player	Professional HD Video System Player	HD-V9000	Jan. '10	The product with the auto standby function.
	System installation Professional Blu-ray Disc Player	BDP-V6000	Aug. '09	

Environmental Impact Assessment by Life Cycle Assessment (LCA)

Industrial products consume resources and energy and continue to emit CO_2 and other wastes throughout their life cycle, from the mining of the raw materials and the machining and manufacture of materials and parts, to product assembly, transportation, use and disposal. LCA is the process whereby products are comprehensively analyzed and assessed for their effect on the environment during their life cycle, in order to effectively reduce their environmental impact.
Analysis of the information obtained through LCA enables quantitative identification of the environmental impact at each stage of a product's life cycle, thus helping us to design more eco-friendly products.



Prevention of Global Warming

Pioneer is working toward conserving energy in product manufacture and use; and reducing the use of natural resources; and decreasing product weight with the aim of preventing global warming. In the area of in-car products, we promote reduction in weight and the enhancement of eco-friendly driving support functions linked to improve fuel efficiency. In the area of home appliances, we contribute to the reduction of CO_2 emissions through reduced power consumption during use.

Promote the Eco-friendly driving by CAR NAVI

Cutting-edge technology and the wealth of information unique to CYBER NAVI is giving rise to the truest form of eco-driving.

The CYBER NAVI (AVIC-VH9990/ZH9990/H9990) supports true eco-driving, as a car navigation function that proposes the most fuel efficient route.


AVIC-VH9990

The industry's first*1 eco-route search function.
CYBER NAVI estimates fuel consumption for all possible routes in advance, based on Smart Loop Congestion Information and Pioneer's proprietary fuel estimation technology. It then proposes the route with the lowest fuel consumption.
Eco-route driving reduces CO_2 emissions by about 20%*2 compared with car navigation systems that do not take into account traffic congestion (such as the FM-VICS). When the cost of gasoline is taken into account, eco-route driving delivers an approximate annual savings of 20,000 yen.

*1 For car navigation systems sold in Japan as of May 2010 (study conducted by Pioneer)
*2 According to a study by Pioneer (based on the results of a January 2010 comparative driving test on a Pioneer-specified course using 1500cc-class passenger vehicles by Japanese manufacturers).

A variety of eco-driving-related Features and Services.
The Eco-Status feature employs Pioneer's proprietary fuel estimation technology, so drivers can enjoy checking their level of eco-driving via ten user-friendly graphic displays and voice messages.

Green IT Awards
Judging Committee Special Awards

Received the Judging Committee Special Award in the "Green IT AWARD 2010."
Received the Special Award from the Board of Review in the "12th Green Purchasing Award" in 2010.

Supervisor's comment

Ecological friendliness is now a global pursuit and improved fuel efficiency is highly in demand for vehicles. The carrozzeria CYBER NAVI car navigation system, winner of the prestigious Environmental Prize, features the industry's first1 eco-route search function, which provides drivers an estimate of fuel consumption before they even hit the road. Proprietary technology developed by Pioneer for estimating fuel consumption enabled the creation of the eco-route search, absolute fuel consumption display, and eco-status features. They were perfected through the dedicated teamwork and exhaustive efforts of employees facing unprecedented industry challenges, and involved verifying data through repeated real-world test runs to ensure their application achieves high customer satisfaction.
Many arguably find eco-driving troublesome, having to avoid quick starts, stops and limiting idling, amongst other requirements. In response, Pioneer has included a variety of features that make it fun, such as implementing eco-driving evaluation guidance and a detailed eco-status display, which convey the degree of eco-driving to drivers through playful graphics and voice messages. The cutting-edge technology, advanced functionality, and advanced performance that the carrozzeria CYBER NAVI car navigation system is renowned for has been made more accessible and user-friendly. We hope you will try CYBER NAVI and see for yourself just how fun and effective eco-driving can be.

* For car navigation systems sold in Japan as of May 2010 (study conducted by Pioneer)


Kyoichiro Fujii
Car Electronics Engineering Division,
Software R & D Department


Development staff

Smart Loop - an even more advanced car navigation system

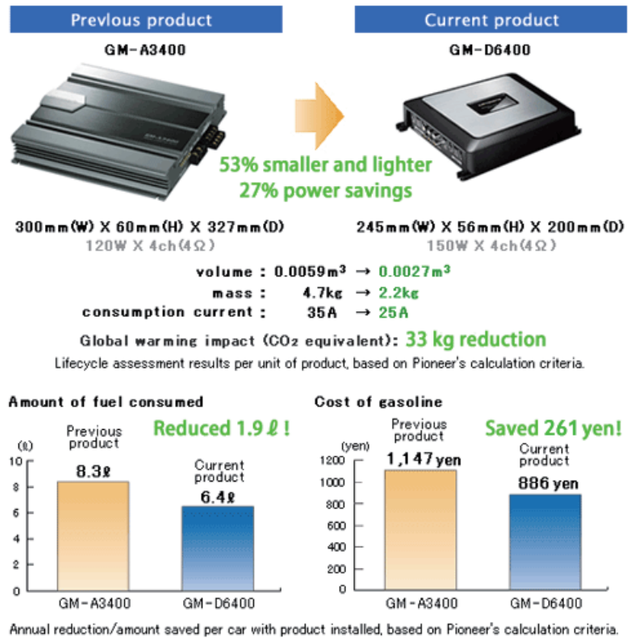
Smart Loop is an information network system that enables users to provide and share knowledge, acquire various traffic information such as information on traffic jams, and then apply it to route searches. The system acquires Smart Loop Congestion Information via a mobile phone or communication module and applies it to car navigation, enabling it to respond rapidly to ever-changing traffic conditions. Congestion information that cannot be acquired by VICS is supplemented to ensure extremely accurate route searches. Three CYBER NAVI models and two Raku-Navi models for 2009 support congestion information for all roads*, delivering improved route searching.
Avoiding traffic jams, not getting lost and reaching the destination as quickly as possible thus contribute to cutting wasteful fuel consumption and preventing global warming.
Advanced car navigation systems are essential for eco-friendly driving.

* Excluding roads/streets that are narrower than 5.5M.

Corresponding environment of automotive products

Reduction in size and weight, and increased power savings through digital amplification technology that delivers more power

The GM-D6400 digital power amplifier contributes to a reduction in CO_2 and efficient fuel consumption.



Supervisor's comment



Kazuyuki Kudo
After Market Car Electronics Business Division, After Market Designing Division

With eco-cars currently in demand worldwide, car audio must also be environmentally friendly, which is why we developed this product. We succeeded in reducing the size and weight of the heat sink for cooling the product, and decreased power use by switching to digital technology. The product offers high output and high efficiency; I'm completely satisfied with its performance, power and sound quality.

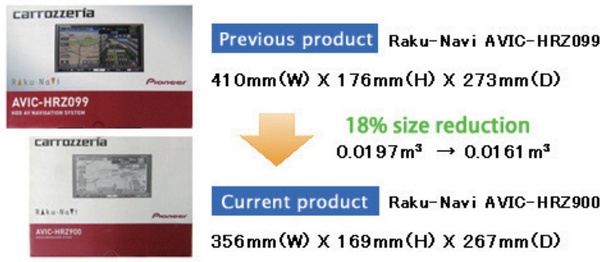
Prevention of Global Warming

Car navigation with increased transport efficiency thanks to reduced size and weight

Reducing packaging size increases the number of units that can be loaded onto trucks and containers during shipment. A larger number of units raises transport efficiency and cuts fuel consumption during shipping.

Package comparison

The size of the cardboard box for the product's accessories (red circle in the above photo) was reduced by revising the included antenna and shortening the cable. This enabled a reduction in total package size.



Previous product Raku-Navi AVIC-HRZ099

410mm(W) X 176mm(H) X 273mm(D)

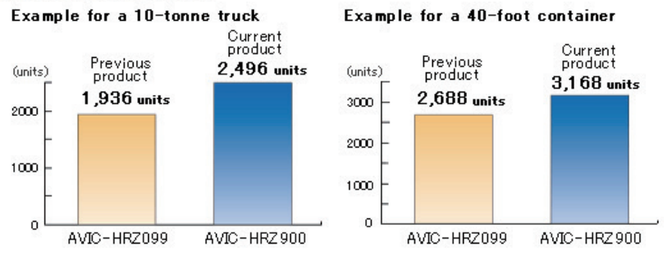
18% size reduction

0.0197m³ → 0.0161m³

Current product Raku-Navi AVIC-HRZ900

356mm(W) X 169mm(H) X 267mm(D)

Comparison of units loaded



Supervisor's comment

The size of the cardboard box for the product's accessories (indicated in the photos) was reduced by improving the included antenna and shortening the cable. This enabled a reduction in the overall package size.

Yoshifumi Takahashi
After Market Car Electronics Business Division, After Market Designing Division
Emiko Uehara
Engineering & Production Center, Engineering Division

GPS Automatic Daily Report Creation System “Sales Log+” Supports Eco-friendly Driving in Business Situations

Sales Log+ automatically creates a daily travel management report for company vehicles on the office computer, based on actual travel logs. Safe, eco-friendly driving can be verified and improved using the log which records sudden braking, sudden acceleration, sharp turns, speeding, idling and other driving situations. Safe, eco-friendly driving can also be stimulated by alerting the driver by alarm while driving. Users can select a car navigation system or GPS sensor system according to their needs. As up to 100 stop-off points can be registered efficiently and in correct order in the car navigation system by a single operation on a PC using the SD card, idling time before departure is reduced, thereby cutting wasteful fuel consumption.

Speed distribution	No. of times	Time	Max. speed	~30 km/h	~60 km/h	~90 km/h	Over 90 km/h
Ordinary road	3	00:00	72km/h	60.03%	38.69%	1.28%	0%
Expressway	0	00:00	100km/h	6.73%	22.77%	63.99%	6.51%

Sudden braking	1	Idling	
Sudden acceleration	11	No. of times	2
Sharp turn	6	Time	14 min

- Verification of the log arouses enthusiasm for eco-friendly driving
- CO_2 emissions are reduced by eliminating wasteful idling

Sales Log+ is compliant with EMS (Ecological-drive Management System) promoted by the Organization for the Promotion of Low Emission Vehicles (LEVO).

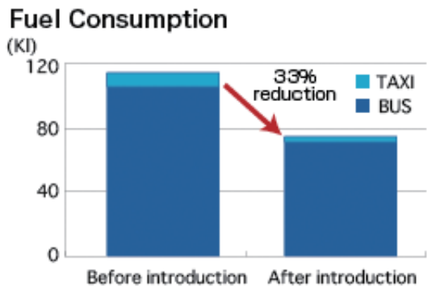
“Demand Responsive Transport Using Car Navigation System*1” reduces wasteful fuel consumption while boosting convenience

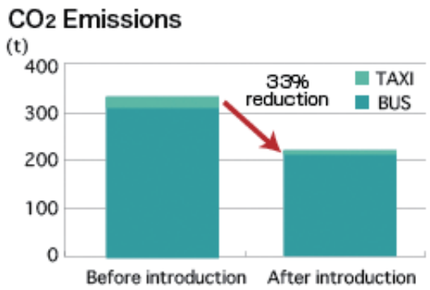
Since the town of Iizuna in Nagano Prefecture introduced Pioneer’s “Demand Responsive Transport Using Car Navigation System” in 2007, the system has proved very popular with residents of the town as a convenient and economical transport system that suits the community. Fixed route buses used to be the main means of transport, but they were inconvenient, especially for the elderly, with bus stops long distant from their homes, hilly streets, and snow in the writer. Passenger numbers fell and buses often ran empty during the day. The Demand Responsive Transport System introduced in Iizuna, called “i-bus” features ;

- the convenience of being picked up and dropped in front of your house
- the ease of making reservations by phone
- the reduction of wasteful fuel consumption by taking the shortest route using the car navigation system

Compared to fixed route buses, the new public transport system which combines convenience, lower costs, and environmental friendliness, is popular with residents. From such favorablie reviews, the number of users has increased by over 4,000 passengers per year*2. Fuel consumption has been reduced by 37.1 kl/year.

*1) Demand Responsive Transport: Bus service that takes routes other than basic routes according to user demand
*2) Comparison of demand before introduction (2006) and after introduction (2008)





<Supplementary Note>
Fuel consumption of taxis decreased because taxi usage dropped due to the convenience of the Demand Responsive Transport System.
The reduction in fuel consumption by buses includes comprehensive measures such as solving the problem of empty running buses and changing the type of buses.
The fuel consumption is the value reported by Iizuna. The reduction in CO_2 emissions is the value calculated by Pioneer.

Pioneer and the town of Iizuna,Nagano Prefecture were jointly awarded the "11th Green Purchasing Award" hosted by the Green Purchasing Network(GPN) in 2009 for the Demand Responsive Transport System.

Prevention of Global Warming

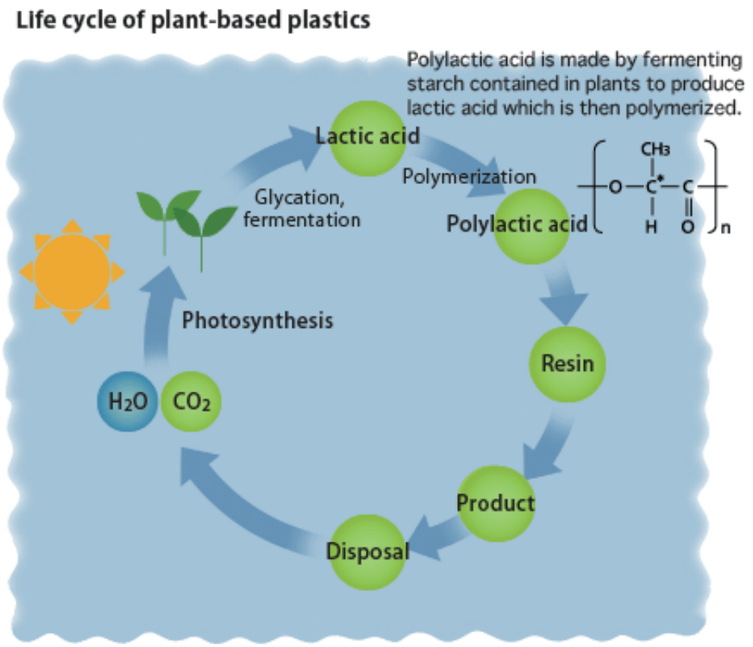
Adoption of Plant-based Resin

Used for the whole front panel of personal computer writers/drivers

Plant-based plastics with a Poly Lactic Acid base are used for the entire front panel of the BD/DVD/CD writer "BDR-S06J(-W, -BK, -KR)."

- Reduced oil consumption to prevent depletion of oil resources.
- Through the Carbon neutral status*, CO_2 is not added into the atmosphere (reducing our product CO_2 emission amount by 20% lesser than conventional oil-based plastics), thereby contributing to the prevention of global warming.

* Carbon neutral status refers to the carbon circulation theory. For example, although plants emit CO_2 like oil when they're burned, they absorb CO_2 through photosynthesis in their growth process, as plants are organic. Therefore, essentially burning plant material does not increase CO_2 levels in the atmosphere.



(Aside from the BDR-S06J, many of our other drivers / writers in PCs as well adopt the plant oil-based plastics.)
Furthermore, the package size (package box) for this model has been greatly reduced to lessen the environmental impact.

Package (package box) miniaturization・volume reduction

- The package volume was reduced by 46%, helping to improve loading efficiency for shipment deliveries. As a result, transportation fuel consumption and CO_2 emission amounts were reduced, contributing to the prevention of global warming.
- Also contributes to reduction of natural resources for the packaging material.

Package Comparison

[Previous product] BDR-S05J
[Current product] BDR-S06J

Green IT

Paperless No-Travel Remote Conference System

Pioneer's remote conference system "CYBER CONFERENCE SYSTEM PRIME", which was developed with the concepts of "transmit at once", "visible all", and "extremely understandable", brings the remote conference rooms together with the industry-leading quality's real-time data sharing, which responses to the various communication scenes.Smoother communications, just like talking face to face with people in far-away places, can contribute to prevent the global warming with less business travels and reduced fuel consumption in transportation.
Plus, saving the data written in the screen directly contributes to the paper-less conference, such as sharing the documents.

Special Features and Environmental Consciousness of Remote Conference System

Energy saving (CO_2 reduction)

* Conference with remote plants or business places contributes to less business travels and less transportations using airplanes or trains.
* It realized to transmit a real thing, such as a sample, as if they are watching right there without transporting it to remote places.
* Watching same screen each other and writing directly in the screen made it possible to transmit ideas at once.

Resource saving (Paperless)

* Sharing real-time high quality images with remote places and saving data in PC contribute to paper-less conference.

Pioneer Participates in the Energy Star Program

The United States Environmental Protection Agency introduced the Energy Star program as an energy saving standard. Pioneer Electronics(USA), Inc. (PUSA) participates in Energy Star for audio-visual products and attaches Energy Star labels to certified products.

DVD Player DV-420V-K registration approved under the "Audio/Video Version 2.0, Tier 2" Energy Star Program for the North American market

Supervisor's comment

Eiji Nakajima
Home AV Business Division, Designing Department

Although Energy Star is a voluntary program in the U.S.A. and not a mandatory regulation, it is an authoritative standard in energy preservation in which achieving this standard may significantly contribute to prevent global warming.
We worked in challenging to obtain certification from the more drastic and environmentally stringent standards of the new Ver. 2.0, Tier 2 program, as opposed to its previous Ver. 1.0. Through clear understanding of the new standard (specifications) requirements, thorough verification related to software changes, strict reviews on electric circuitry, succeeding new standards in power saving during playback mode/sleep mode, and in auto power down function; we were able to obtain certification for passing Energy Star's Ver. 2.0, Tier 2 standard.
With this certification for the North American models, this energy saving technology was exploited in models to Japan and other countries. In parallel with our pursuit for high quality picture/sound and high functionality, we make it our mission to constantly make efforts in developing and designing such environmentally friendly products.

Recycling of Resources (3Rs)

In countries all over the world, social structures hitherto centered on mass production, mass consumption and mass disposal are coming under scrutiny and there is a progressive shift toward recycling-oriented societies. At the core of recycling is the 3Rs (Reduce, Reuse, Recycle) concept. Pioneer promote 3Rs aggressive by using recycle material etc.

Recycling of used whiskey barrels Pure Malt Speakers and Audio Racks

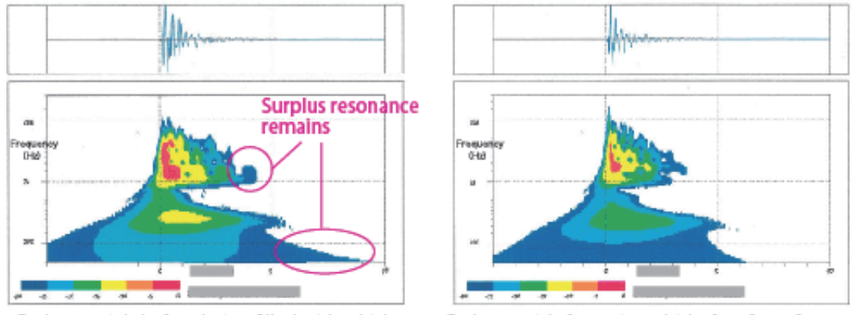
Available since 1998, Pure Malt speakers have gained worldwide recognition as a leading example of Pioneer's recycling efforts.
In the "Resource Recycling Technology & System Awards" presented by the Clean Japan Center and supported by the METI (Ministry of Economy,Trade and Industry), the Pure Malt speaker series won the "Clean Japan Center Chairman's Award" in 2005, and the "METI Industrial Technology & Environment Bureau Director General's Award" in 2009. In the same year of 2009 as commendation of meritorious action in the "Reduce, Reuse, Recycle Promotions" program, the same series received the "Chairman's Award of the Reduce, Reuse, Recycle Promotions Council."
Pure Malt speakers were developed in collaboration with brewing and distilling company Suntory Holdings Limited, which was seeking a way to recycle casks (made from virgin white oak) that were being used for fuels and other purposes after fulfilling their mission of aging whisky. Oak trees grow for 100 years before serving as whisky casks for another 50 to 70 years. After that, the wood is recycled into speaker cabinets that produce warm, rich sounds for many more years. Pure Malt speakers were commercialized in 1998 and the current models S-A4SPT-PM and S-A4SPT-VP are sold worldwide. As well as speakers, Pioneer also uses retired casks for making audio racks and other products, expanding the Pure Malt series lineup and promoting recycling of natural materials.

Main environment-friendly factors

- Using old casks for cabinets and ducts contributes to the recycling and reduced use of natural resources
- Low VOCs (volatile organic compounds) content
- Replacement of styrene foam packaging material with recyclable pulp molded material
- Use of lead-free solder
- A portion of revenue from product sales is donated to the Green Fund of the National Land Afforestation Promotion Organization as a contribution to government-led promotion of afforestation

Green Fund symbol

Data on sounds produced when beating cask material



・Cask materials before being filled with whiskey ・Cask material after aging whisky for 50 to 70 years

Experiment results indicate that casks used to age whisky have less resonance (eigentone) and produce a softer and more natural sound quality. These recycled casks can be said to serve a dual purpose: being environmentally friendly and having a positive effect on sound quality.

Reducing Environmentally Hazardous Substances

Pioneer has established procurement standards for its own components and materials that are stricter than those in the RoHS Directive*1 and is committed to reducing environmentally hazardous substances in all the products that it delivers to customers not only in Japan but worldwide. The Pioneer Group has already ensured that all new products launched since 2005 are RoHS Directive compliant. In addition, in response to the REACH Regulation*2, Pioneer has built a system to manage substances of very high concern contained in procured materials and to gather data on the properties of the chemical substances.

*1) RoHS is an EU directive prohibiting the use of specific hazardous substances in electrical or electronic equipment. The six prohibited substances are lead, mercury, cadmium, hexavalent chromium, PBB and PBDE.
*2) REACH is an EU regulation to register all chemical substances and manage the risks to the environment and human health from the perspective of harmful effect, production volume, uses, persistence, etc.

Using a Fluorescent X-ray Analyzer to check EHS* in Products

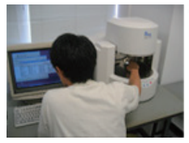
Pioneer endeavors to keep hazardous substances out of its products through green procurement. One of the methods we employ is analysis of EHS content by fluorescent X-ray analyzer at various bases throughout the group. Our credibility is enhanced by such in-house analysis of products using the analyzer in addition to information provided by suppliers on EHS in products.

* EHS stands for Environmental Hazardous Substances.

Using a fluorescent X-ray analyzer to rigorously check for hazardous substances

Setting up an Open House to Provide EHS Analysis Support for Suppliers

In April 2003, Pioneer established an Open House equipped with a fluorescent X-ray analyzer to measure EHS in components in its Kawagoe Plant. Since then, the analyzer has been used to measure EHS in all newly adopted components (test components). As the equipment is expensive to purchase and generates running costs after installation, it would be difficult for small or medium-sized suppliers to install and do their own analyses and tests because of the huge cost burden. Aware of the need for combined efforts with suppliers and other cooperating companies toward EHS reduction and elimination, Pioneer utilizes the Open House at its Kawagoe Plant to provide the equipment, lab and expertise to small and medium-sized suppliers free of charge, thus considerably reducing their EHS analysis costs.



Fluorescent X-ray analyzer

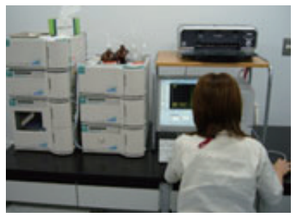
Reducing Volatile Organic Compounds

Setting up a Volatile Organic Compound (VOC*) Lab

A lab with equipment for analyzing the minute VOC radiation from car electronic products was set up in Pioneer's Kawagoe Plant in September 2005. Established in response to the voluntary VOC controls of the Japan Automobile Manufacturing Association that came into effect for new passengers cars in April 2007, the lab is equipped with a constant-temperature bath, high-performance liquid chromatograph (HPLC) analyzer, gas chromatograph mass spectrometer (GC-MS) and other devices, providing the ideal environment for stable analysis of VOCs.
The ability to conduct in-house analysis of VOCs allows us to respond better to problems and to study ways to reduce VOCs in all our processes, from planning to development and production. Other merits include lower analysis costs and reduced risk of leakage of classified information on new products before their release. We will utilize the expertise obtained from analysis for further improvements in the development of home electronic products and for providing feedback to component suppliers.

* VOC stands for Volatile Organic compound. VOC is a collective name for organic chemical substances that evaporate easily in the air at room temperature and room pressure, such as formaldehyde, acetaldehyde, toluene and ethyl benzene, which are widely used in the industry. VOCs can cause sick house syndrome and photochemical smog.

Constant-temperature bath (pre-treatment)

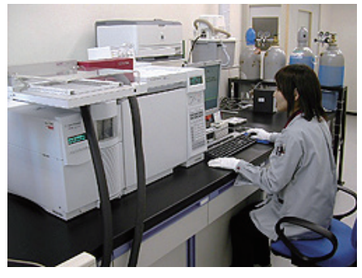


High-performance liquid chromatograph (HPLC) analyzer

Reduction of VOC Emissions from Unit subwoofer

Tohoku pioneer designs, and produces car speakers have abolished organic solvents such as hexane and ethyl acetate and have developed a new solventless VOC-free adhesive. As a result, production efficiency has increased, with greatly reduced VOC emissions and a drying time shortened to one-twelfth of what it was. In addition, not only have VOC emissions from products been reduced, but atmospheric emissions from the plants and organic solvent odors from the production lines have also been decreased, greatly improving the working environment.
Adhesive is an essential factor in terms of the audio quality of speakers, but one that presents many difficulties. To achieve a balance between high audio quality and environmental friendliness, new VOC measuring devices have been introduced to conduct repeated measurements and trial listening.

VOC-free adhesive application(for car)
Unit Subwoofer TS-W3010



Gas chromatograph-mass spectrometer (GC-MS)

Pioneer is committed to reducing the environmental impact of its products. Pioneer employs a life cycle assessment (LCA) method to quantify the environmental impact of the product by assessing the entire lifecycle from production of the materials, product to distribution, use, disposal, and recycling. The results of the assessment are reflected in the product development. Pioneer will continue to utilize LCA as an assessment tool for developing more environmentally friendly products, and will actively disclose the results of such assessments.

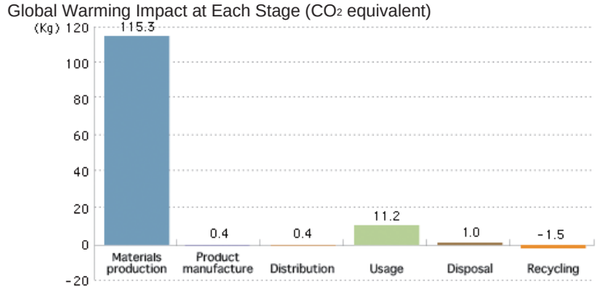
Car Electronics Products

Raku-Navi AVIC-HRZ900

Consumption & Emissions During the Life Cycle	Total for All Stages (kg)
Global warming impact (CO_2 equivalent)	126.8

AVIC-HRZ900

Global Warming Impact at Each Stage (CO_2 equivalent)

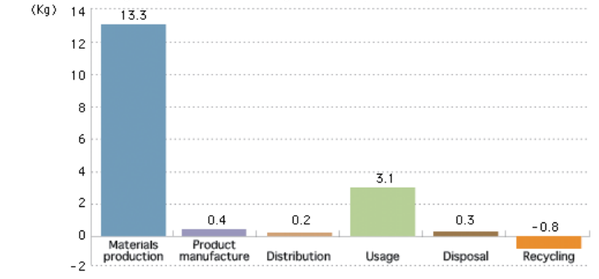


1D Main unit DEH-P650

Consumption & Emissions During the Life Cycle	Total for All Stages (kg)
Global warming impact (CO_2 equivalent)	16.5

DEH-P650

Global Warming Impact at Each Stage (CO_2 equivalent)



(Note) LCA calculation conditions for the two models mentioned above.
Fuel consumption: Weighted average for actual fuel consumption of top ten best selling cars in 2008, according to the Japan Automobile Dealers Association was used
Driving condition: 800 km per month
Car stereo is assumed to be operating while driving and duration of usage is one year

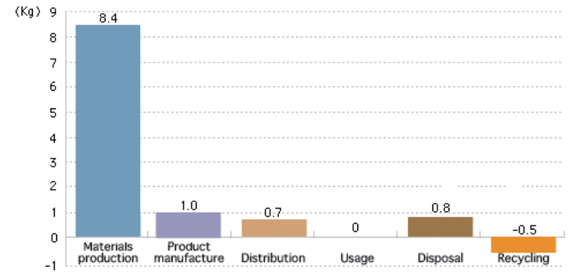
Environmental Data

Home Electronics Products

Pure Malt Speaker S-A4SPT-PM

Consumption & Emissions During the Life Cycle	Total for All Stages (kg)
Global warming impact (CO_2 equivalent)	10.4

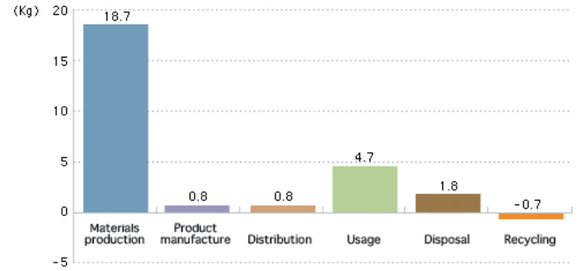
Global Warming Impact at Each Stage (CO_2 equivalent)



CDJ Player CDJ-350

Consumption & Emissions During the Life Cycle	Total for All Stages (kg)
Global warming impact (CO_2 equivalent)	26.1

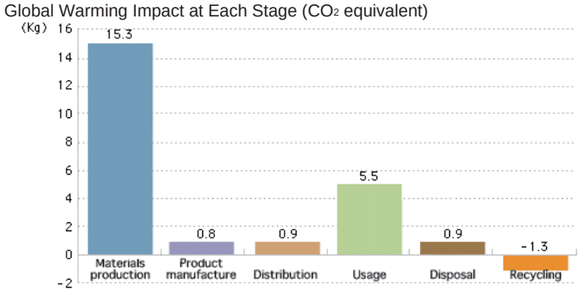
Global Warming Impact at Each Stage (CO_2 equivalent)



DJ Mixer DJM-350

Consumption & Emissions During the Life Cycle	Total for All Stages (kg)
Global warming impact (CO_2 equivalent)	22.1

Global Warming Impact at Each Stage (CO_2 equivalent)

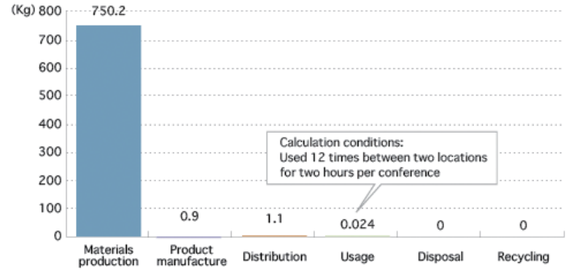


Products for Business and Industrial Use

Remote Data Conference Solution “Cyber Conference System Prime”

Consumption & Emissions During the Life Cycle	Total for All Stages (kg)
Global warming impact (CO_2 equivalent)	752.224

Global Warming Impact at Each Stage (CO_2 equivalent)

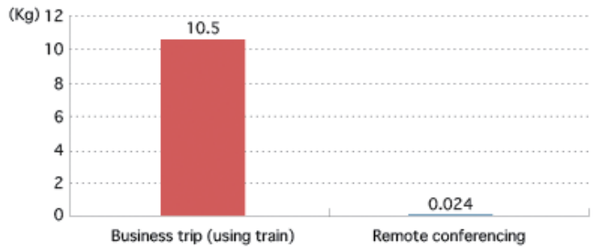


<Main Eco-Friendly Features>

- The remote conference system enables high-quality real-time data sharing between multiple locations, thereby reducing the number of business trips required. Major energy-saving effect (reduction in CO_2 emissions) is achieved compared with attending conferences using public transport.
- For example, the global warming impact (CO_2 equivalent) of traveling by train on a business trip from Tokyo to Osaka is 10.5 kg per person*. In contrast, the global warming impact (CO_2 equivalent) of using the remote conference system between Tokyo and Osaka 12 times (for two hours per conference) is 0.024 kg.

*CO_2 emission value based on "Ekisupaato" software

Comparison of global warming impact (CO2 equivalent)
by business trip and by remote conferencing



- Data written directly on the screen can be saved to a PC, contributing to paperless conferences and thus conserving resources

Green Procurement

Pioneer is dedicated to environmentally friendly procurement of materials. It provides guidelines on management of environmentally hazardous substances to suppliers through its Green Procurement Standards, and works to improve the level of management of procured materials by using a comprehensive Green Score rating system as criteria for judging whether or not to proceed with deals.

Green Procurement Standards [Clarification of the EHS* controlled points]

Pioneer discloses its Green Procurement Standards to all its suppliers. Focusing on the management of environmentally hazardous substances, the Standards have been revised from time to time since it was first issued in July 2000. It sets out clearly the key points of EHS management for suppliers to enable them to satisfy environmental compliance and procure safe and environmentally friendly components and materials.

* EHS stands for Environmental Hazardous Substances.


Pioneer group
Green Procurement Standard
GGP-002-B
Pioneer
April 1st, 2008
Foreword

Green Procurement Standards

Evaluating the EHS Management Systems of Suppliers

Pioneer evaluates suppliers from three perspectives: environmental management system, EHS management and 3Rs (Reduce, Reuse, Recycle), and awards each supplier a Green Score based on the evaluation results. This Green Score serves as the criteria for judging whether or not Pioneer deals with a particular supplier.

Pioneer's environmental evaluation of suppliers (Green Score)

- A rank: Compliant
- B rank: Semi-compliant
- D rank: Improvement needed

In addition to the Green Score, we minimize the risk of EHS through spot measurement of procured components and EHS management audits at production sites.

EHS Management Audit by Qualified Auditors

Pioneer carries out EHS management audits of suppliers. Auditors are required to have the ability to carry out proper audits as well as the leadership qualities to promote maintenance and improvement of green procurement in cooperation with the audited suppliers. We, therefore, established an auditor certification system under which only those with specialist knowledge of EHS who passed the certification test may conduct audits. Training courses in the latest auditing standards and forums for exchange of views were held at key production bases in Japan and overseas and were attended by auditors and concerned parties interested in learning about the new standards and related know-how. Pioneer intends to continue training auditors and aims to improve the level of EHS management in cooperation with suppliers.

Explanatory meeting held for customers, covering REACH*1 regulation in Europe

Pioneer held an explanatory meeting on the REACH regulation in Europe at the Kawasaki Plant on Jan. 22, 2009. At a meeting room of the Tohoku Pioneer Corporation's head office in Tendo City of Yamagata Prefecture, a TV meeting system (cyber conference system) was held simultaneously, totaling roughly 400 attendees from 300 companies from both venues.
Explanations regarding the outline of the REACH regulation, Pioneer Group challenges to the issues, AIS*2 format (a General Chemical Materials Information Sheet), and requests for presentation of material information were made. Many of the attendees had fervent questions during the Q&A session, reflecting high interests in environmental issues.
It is our intention to administer information of such chemical materials, and enforcing the framework to meet the REACH regulation through cooperation with our customers for the continuation of future sales in Europe.

Many customers attending the European REACH Regulation Explanatory Meeting with keen interests.

*1: REACH (Registration, Evaluation, Authorization, and Restriction of Chemicals)
Regulation is a law in Europe that administers the registration of all chemical materials, with reference to toxicity, production volume, usage, and residual characteristics involving risks to the environment and natural life forms.
*2: Article Information Sheet

Green Procurement and Green Purchasing

Pioneer tackles green procurement and green purchasing separately.

Green procurement

Procurement of environment-friendly parts and materials for use in the manufacture of our products from suppliers who are active in environmental conservation.

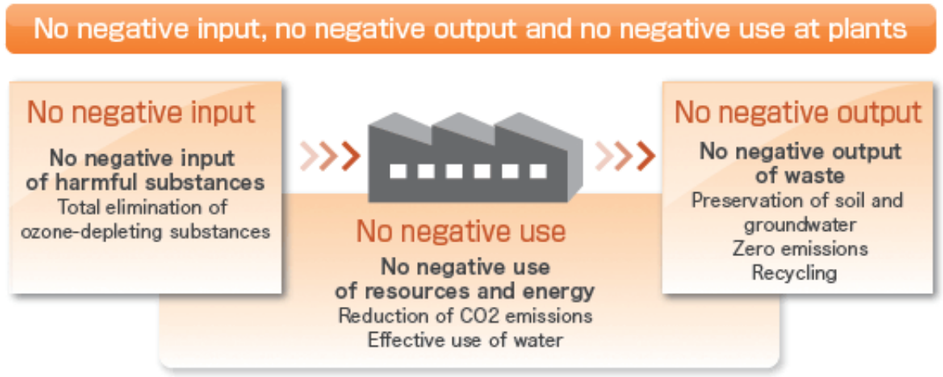
Green purchasing

Preferential purchasing of environment-friendly products when buying items not directly related to product manufacture, such as office supplies and vehicles.

Philosophy and Approach

Pioneer is committed to reducing the environmental impact of all its plants in Japan and overseas. We are working towards CO_2 reduction, zero emission of waste and promotion of recycling in our manufacturing processes and management activities under the slogan "No negative input, no negative output, no negative use."

Basic Efforts



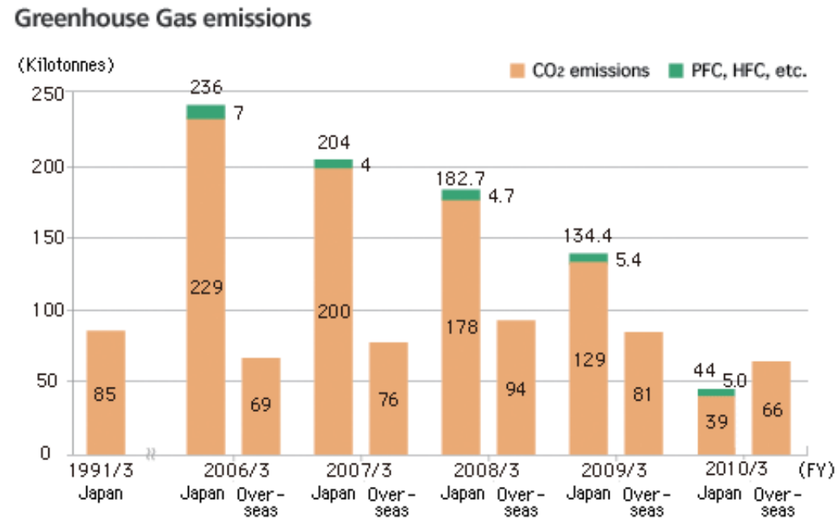
Prevention of Global Warming

Prevention of global warming is a corporate mission
The Kyoto Protocol commitment period started in April 2008. Japan has set a target of reducing CO_2 emissions by 6% from 1990 levels. To achieve this target, the whole country from government to businesses and homes must take concrete steps to reduce CO_2 emissions. The electric and electronic industries have formulated their own voluntary environmental action plans and are working to achieve their program goals. Pioneer participates in the voluntary environmental action plan of Nippon Keidanren (Japan Business Federation) and has set a voluntary target of 36% in an effort to achieve the 35% reduction in CO_2 emissions per unit of actual production* from 1990 levels during the commitment period of the Kyoto Protocol from 2008 to 2012 which is the target of the electric and electronic industries. In addition, the company is also working to reducing total emissions.

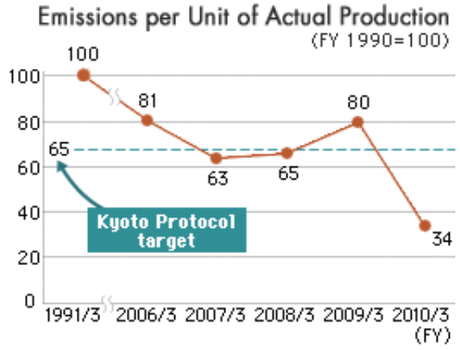
* Actual production is calculated by dividing the fiscal year production by the Bank of Japan domestic corporate goods price index for electrical equipment based on FY1990 (0.419 for FY2010).

Reducing CO_2 Emissions

Pioneer is striving to reduce its CO_2 emissions by tackling reduction of energy consumption at its production plants head-on. Until FY2006, CO_2 emissions increased over 1990, the base year for measuring emission reductions, but they have since fallen as a result of our energy conservation efforts and reduced production.



As a member of the electrical and electronics industry, Pioneer is working towards a 35% reduction in CO_2 emissions per unit of actual production from 1990 levels during the commitment period of the Kyoto Protocol from 2008 to 2012. In addition, Pioneer has set a voluntary reduction target of 36%. In FY2010 the index of domestic GHG emissions became 34% of FY1991 emissions.



Prevention of Global Warming

Promoting the use of photovoltaic power

Photovoltaic system at Pioneer's Kawagoe Plant

Pioneer is actively promoting the introduction and use of photovoltaic power as a part of its overall greenhouse gas reduction efforts. In this context, the Company is currently conducting field tests for new photovoltaic technologies in conjunction with the New Energy and Industrial Technology Development Organization (NEDO). In its initial phase, this joint research project involved the installation of a photovoltaic power system at Pioneer Micro Technology Corporation (MTC) in Yamanashi Prefecture in March 2007. This system is producing electricity at a rate of 150kW annually, powering part of MTC's manufacturing line. More recently, a 30kW photovoltaic power system was installed at the Company's Kawagoe Plant in Saitama Prefecture in February 2009. This system is being used to power the business site. Utilizing a dedicated line, the status and details of solar power generated at the Kawagoe Plant are relayed hourly to NEDO. At the same time, electricity output is displayed on a real time basis through a monitor located in the Plant lobby. Through these means, Pioneer has established a framework that allows interested parties to visually confirm the Company's efforts to contribute to the environment. Looking ahead, the Pioneer Group will proactively promote efforts to reduce greenhouse gas emissions by leveraging the benefits of such clean energy alternatives as photovoltaic power generation and further enhancing electricity consumption efficiency.

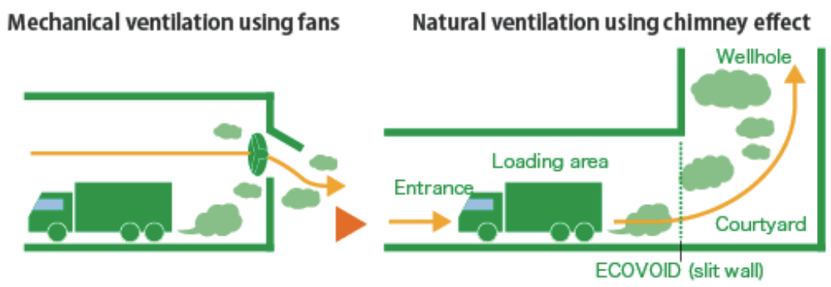
Energy Saving Ideas

Kawasaki Plant

Pioneer's Kawasaki Plant, completed in April 2007, is a design and development base for home electronic products and many of its engineers are working on energy saving and environmental impact reduction of products. Various measures were incorporated into the construction of the plant in order to reduce energy consumption in its daily business activities. The plant embodies the Pioneer approach of reducing the environmental impact of its products and the energy consumed in its daily production activities.
The Kawasaki facility became the Company's headquarters starting in November 2009.

Natural ventilation using the chimney effect of the loading area

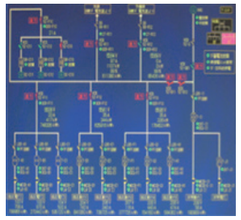
Normally, loading areas require fans to ventilate the exhaust fumes from trucks in the area, but at the Kawasaki Plant we have switched to natural ventilation using the chimney effect created by connecting the vehicle entrance/exit with the wellhole. This has eliminated the need for mechanical ventilation using fans, thereby reducing power consumption.



Reducing air-conditioning energy

The Kawasaki Plant has adopted an ice thermal storage system for the air conditioners in the office area. The system produces ice at night when energy demand is low and uses the ice for air conditioning during the daytime, thus reducing power consumption. In addition, the executive offices use total heat exchangers to reuse the heat discharged from warm rooms during wintertime heating, further reducing air conditioning energy.

Adopting a building energy management system



BEMS monitor

The plant's equipment management office collects data on power consumption and utilization using the building energy management system (BEMS). This data is then utilized to support power consumption management, including daily monitoring of optimized operations, checking departments with conspicuously high power consumption and analyzing reductions in consumption.

LEDs used to illuminate Pioneer logo

Logo illumination by LEDs

LEDs are now being used to illuminate the Pioneer logo on the north and south sides of the building. This has reduced energy consumption to one-third of the amount compared with fluorescent lighting.

Brightening dining areas with natural light from large windows

The Employee Cafeteria

Other energy saving measures

- Measures against the summer sun and west sun
- Transformer operation by appropriate load factor
- Adoption of high-efficiency transformers
- Adoption of automatic power factor regulators
- Adoption of high-efficiency fluorescent lighting
- Adoption of water-saving sanitary appliances
- Maintaining appropriate illuminance with light sensors and controllers
- Turning off lights in empty rooms using motion sensors

Prevention of Global Warming

Energy Saving by Heat Discharge

Reflow furnace area

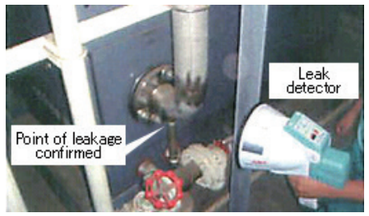
At Towada Pioneer in Aomori Prefecture, we succeeded in saving energy by focusing on the heat discharged from the reflow furnace on the circuit board assembly line. More precisely, we increased the heat exhaust speed by changing the setting on the duct fan inverter that discharges the heat from the reflow furnace to outside. In this way, we were able to create a comfortable environment of about 25℃ around the reflow furnace. In addition, there was no longer any need to operate the special blower which previously was keep running for 24 hours to lower the room temperature. In four months, CO_2 emissions were reduced by approximately 19 tonnes.

Introduction of NaS Batteries

NaS batteries introduced by Pioneer Micro Technology

In May 2009, Pioneer Micro Technology Corporation in Yamanashi Prefecture commenced usage of NaS batteries, which can store large quantities of electric power with a rated output of 2,000 kWh. This is possible thanks to the battery's ability to store electricity during nighttime hours when energy use is low, and then discharge it in response to daytime usage peaks.

Saving-energy through preventing air leaks



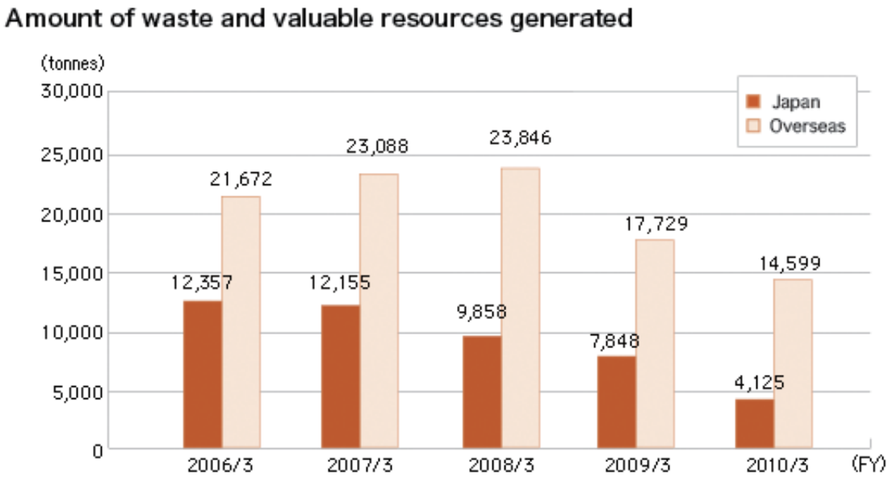
Air leak inspection

Pioneer Micro Technology Corporation in Yamanashi Prefecture periodically conducts leak inspections for compressed air, nitrogen and other gases at its plants. This has a dramatic energy-saving effect as it reduces the energy used by compressors and prevents gas leakages. Continuing such efforts allows the early detection of leaks and reduces wasteful leakage, thereby saving energy and reducing costs.

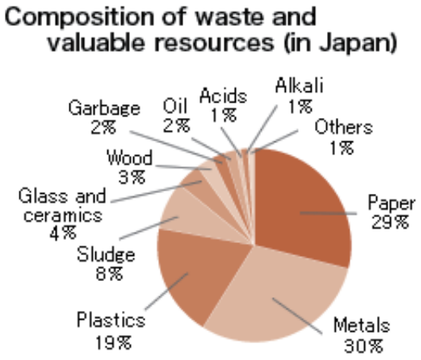
Recycling of Resources (3Rs)

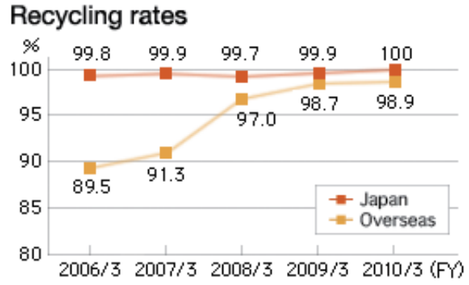
The Pioneer Group is promoting environmental activities at its plants worldwide with the aim of achieving Zero emission of waste(*). In FY2006, we achieved this goal at our group companies in Japan. FY2010, We achieved it at target companies of our overseas group too. We will continue and futher improve for the activity.

*Zero emission of waste (Pioneer's definition)
Recycling of exceeds 99.5% of waste generated at our plants so as to eliminate landfill disposal in Japan. Besides in foreign countries, the recycling rate exceeds 99%.



Amount of waste and valuable resources generated
The amount generated at Pioneer plants in Japan in FY2010 decreased by 47% from the previous year, and at overseas plants by 18%. Total amount in Japan and over seas were decreased due to activities of waste reduction and decline in production.





Improvement of recycling rate
We maintained a recycling rate of 99.9% in Japan in FY2010.
At 98.9%, the recycling rate at our overseas plants was up on the previous year. The recycling rate is calculated based on the method of waste management established by the law and regulations in each country.

Recycling of Resources (3Rs)

Recycling Centers

Product waste is generated at our development and production plants. To improve the recycling rate, Pioneer has established recycling centers at these plants to disassemble and sort waste.

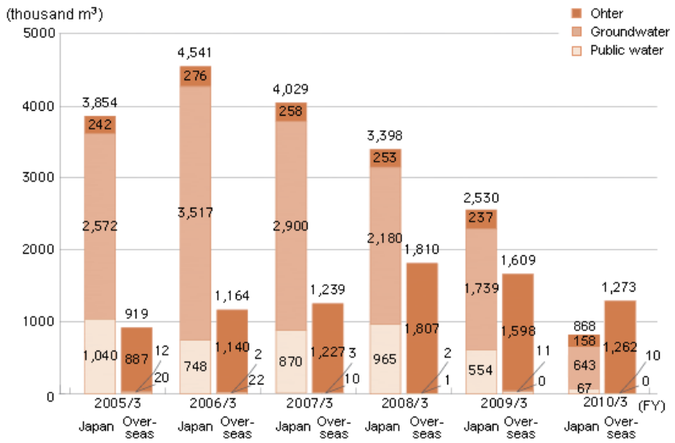
Recycling car products at Kawagoe Plant

Kawagoe Plant Recycling Center

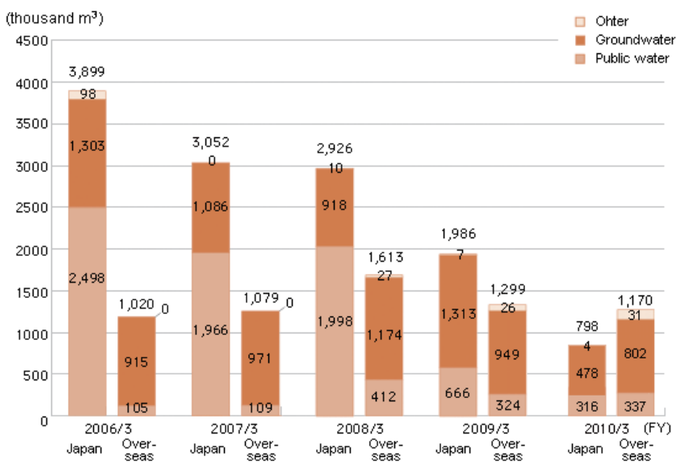
Trends in Water Usage and Wastewater Volume

Pioneer succeeded in reducing water usage and the volume of wastewater at its plants in Japan in FY2010.
We will continue to make efforts to reduce wastewater by reuse and other water-saving measures.

Water usage

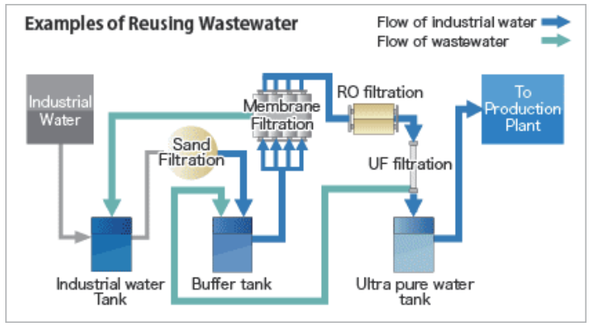


Wastewater



Wastewater Reuse

Production of semiconductors and organic EL displays requires pure water.
Pure water is created by passing raw industrial water through various filters.
Wastewater is generated when the water passes through the filters, but it is recovered and reused as industrial water.
In FY2010, we reused 34,000 m³ in this way.



Green Purchasing (in Japan)

The basic concept underlying green purchasing is not to buy unnecessary items, only buy required items, and ensure all items bought are environmentally friendly.
The Pioneer Group promotes green purchasing based on a list of items with a 100% green purchasing target. In FY2009, Pioneer achieved its 100% green purchasing target for ten out of thirteen items.
Green purchasing was not achieved for the other three items, as they did not include green-compliant products in terms of functionality and performance.

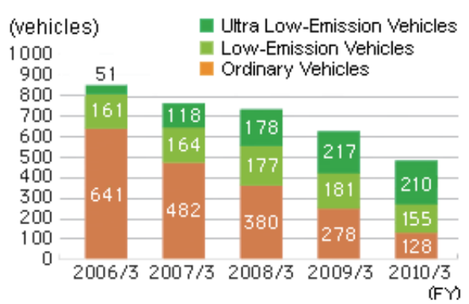
○ Fax machines	○ TVs	○ Printers	○ Company Vehicles	○ Toilet Paper
○ Refrigerators	○ Office paper	Uniforms	Copiers	○ Multifunction Printers
Office fumiture	○ Electronic chalkboards	○ Personal computer		

(O: 100% green purchasing was achieved)

Approximately three-quarters of the Company's car fleet has been replaced with Low-Emission Vehicles*, with Ultra Low-Emission Vehicles* comprising 58% of them. Initiatives to reduce office paper usage compared to the previous fiscal year were promoted, resulting in an approximate 40% reduction in FY2010.

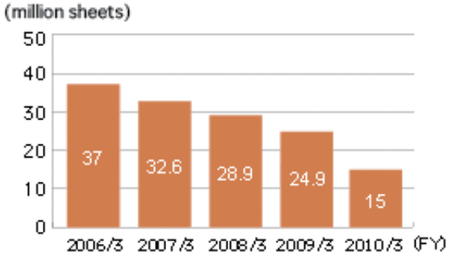
* Low-Emission Vehicle (LEV) Environmental Performance Certification: System of indicating how much hazardous substances have been reduced from exhaust gas emissions from the reference value.
Ultra Low-Emission Vehicles (4-star ranking): Reduced by 75% or more
Low-Emission Vehicles (3-star ranking): Reduced by 50% or more

Number of Low-Emission company vehicies



The number of vehicles in FY2009 was revised from the previous year's report as the tabulation range was increased.

Office paper purchases (Converted in A4)



Reducing Environmentally Hazardous Substances

Pioneer is committed to reducing emissions by conducting environmental impact assessments and reducing the discharge of chemicals used in the production process into the air or water, changing to alternative substances where technologically practicable or improving the process. We are currently engaged in deciding the procedures for appropriate management of chemical substances required in the production process.

Management by PRTR System

Under the PRTR Law*, Pioneer is required to notify the government of emissions/transfers of chemical substances, starting with our business activities in FY2002. This obligation applies to Class 1 designated chemical substances handled in volumes of one tonne or more per year, and the 4 substances indicated in the table were all subject to this obligation for Pioneer's FY2010 activities. The volume handled decreased by 69% from the previous year by changing to alternative substances and other measures, and 1.6 tonnes atmospheric emissions were also maintained. We will continue to reduce our environmental impact by improving the management level of chemical substances.

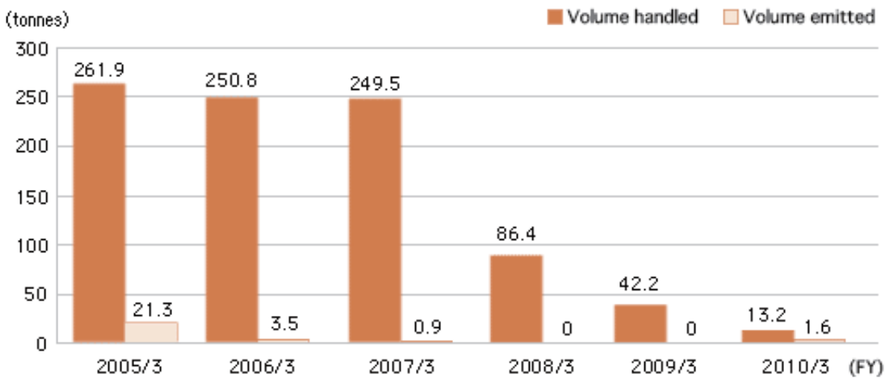
*PRTR Law: Law Concerning Reporting, etc. of Release of Specific Chemical Substances to the Environment and Promotion of the Improvement of Their Management
PRTR : Pollutant Release and Transfer Register

Handling, transfer and emissions of PRTR chemical substances

Aggregate volume of chemical substances: tons

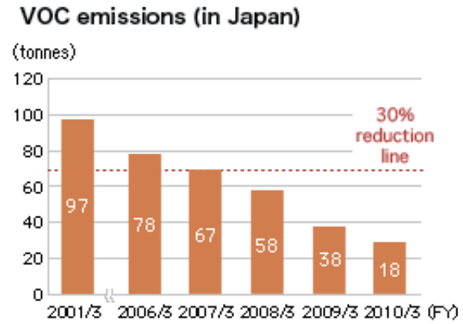
Substance	Number of facilities	Volume handled	Volume emitted into atmosphere	Volume transferred			Volume consumed	Volume removed or disposed of	Volume recycled
				Volume transferred as waste	Volume transferred to sewers	Total			
Hydrogen fluoride and its water-soluble salts	1	5.7	0	0	0	0	0	5.7	0
N,N-dimethylformamide	1	3	0	3	0	3	0	0	0
2-amino ethanol	1	2.7	0	2.7	0	2.7	0	0	0
Toluene	1	1.8	1.6	0.2	0	0.2	0	0	0
Total	4	13.2	1.6	5.9	0	5.9	0	5.7	0

Volumes of PRTR chemical substances handled and emitted (in Japan)



Reduction of VOC Emissions

Pioneer has also been working to reduce emissions of volatile organic compounds (VOCs) used in the production process. We aim to reduce emissions by 30% by FY2011 from the FY2000 (2001/3) level in accordance with the industry's voluntary action plan. In FY2010, we succeeded in reducing emissions by 82% from the base year.



Total Elimination of Ozone-depleting Substances

As early as 1992, Pioneer had totally eliminated specified chlorofluorocarbons with high ozone depletion potential whose use was banned by international regulations in 1995 from the production processes of all group companies. In addition, by 1996 we had totally eliminated chlorofluorocarbon alternatives*, whose use will be banned by international regulations by 2020, from the production processes of all group companies by switching to cleaning with alcohol or not cleaning at all.

*Chlorofluorocarbon alternatives: Hydrochlorofluorocarbons (HCFCs) and hydrofluorocarbons (HFCs)

Strict Water Quality Control

Pioneer has set voluntary water quality standards that are stricter than those set by Japanese law and implements strict water quality control throughout the group.

Example of water quality measurement results (Pioneer Micro Technology)

	Legal standard	Pioneer standard	Measured value	Volume transferred as waste
BOD	30	6	1.8	4 times/year
SS	50	5	N.D.*1	4 times/year
n-hexane extracts	5*2	0.6	N.D.	4 times/year

BOD: Biochemical oxygen demand (mg/l)
SS: Suspended solids (mg/l)
n-hexane extracts: General name for oil (mg/l)
*1: N.D. - Not detected (= less than the detection limit)
*2: Including more stringent prefectural and municipal effluent standards

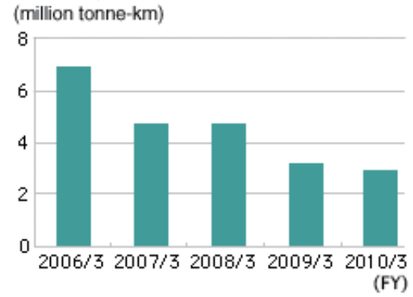
Prevention of Global Warming

Pioneer is working toward energy conservation in distribution. We are making various efforts throughout the entire distribution system, from transportation of production materials to sales-related transportation.

Logistical Initiatives

Modal shift

Amount handled by modal shift

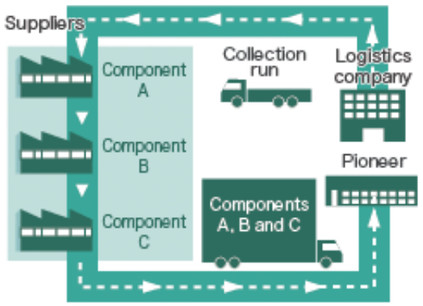


Modal shift refers to shifting transportation methods from trucks to railways or marine transport. Pioneer has been promoting such a shift for many years. In FY2010, the volume of freight handled by railways and marine transport amounted to 2.98 million tonne-kilometers* following a decline in sales. This represented an 11% decrease over the previous year. As a percentage of total transport tonne-kilometers, it represented an increase of 4.3% to 26.1% due to efforts that included transport aggregation.

*tonne-kilometer (tonne-km) is the unit used to indicate volume of freight transport.
For example, if 1 tonne of freight is transported 1 kilometer, this is expressed as 1 tonne-kilometer.

Transport reform using milk runs

Milk run concept



To ensure the efficient transportation of materials from multiple component suppliers, Pioneer employs the "milk run" system of one truck visiting several suppliers to pick up the required components. In FY2010, 22 component suppliers were incorporated in the milk runs, resulting in a reduction of 107,800 km in the cumulative traveling distance for 2-tonne and 4-tonne trucks. This corresponds to a fuel saving of 19.4 kiloliters and a reduction in CO_2 of 50.8 tonnes.

Recycling of Resources (3Rs)

Pioneer is committed to reducing the environmental impact of its sales, distribution and service activities by promoting recycling based on the 3Rs(Reduce, Reuse, Recycle) concept.

Reuse of Sales Promotion Items

As part of our environmental preservation activities, Pioneer makes every effort to reuse items used in sales promotions. For example, the display stands used in sales campaigns can be used over again by changing the decorations.

Example of continuously using sales promotion display stands

Collecting Repair and Replacement Parts for Recycling

Pioneer undertakes 3Rs (Reduce, Reuse, Recycle) of service parts as part of our environmental preservation activities. We collect repair and replacement parts such as large printed circuit boards and mechanical units that customers find it difficult to dispose of and dispose of them appropriately. With the cooperation of customers, we collect recyclable components and reuse them as service parts under our environmental preservation policy.

Factory Refurbished Products

From the perspective of every effort to reduce waste and minimize our environmental impact, Pioneer uses a specific refurbishing line to restore products returned to us after being put on the market to revive them as refurbished products and sells them online under the category "Factory Refurbished."(Japan domestic only)

Communicating our Message

At Pioneer we believe it is our duty to continue to play a leading role in the creation of new markets, promote preservation and improvement of the global environment as a responsible corporate citizen and maintain a high level of ethics as a member of local as well as international society. Together with various stakeholders, we can realize the Pioneer Group philosophy of "Move the Heart and Touch the Soul" by our adherence to this belief.

Stakeholders

This illustration shows the role Pioneer should play in the preservation of the global environment through our relations with a variety of stakeholders.

Environmental exhibition

At the Eco-Products 2009, we introduced our leading environmentally friendly products based on the theme and desire to be “Also the Pioneer in our Environmental Initiatives.” The car navigation systems as “Raku Navi,” “Raku Navi Lite” equipped to meet eco-driving standards, and the “Pure Malt Speakers” produced from re-used whiskey barrels winning 2 environmental awards were displayed and demonstrated, including various environmental technologies. Furthermore, “Ecological & Economical Demonstrations” of actual Raku Navi drive reports using photo slides, and the revelation of “The Birth of Pure Malt Speakers with Actual Audio Demonstration” were made enjoyably at the booth stage.

Pioneer Booth

Presentation Stage

New Environmental Technology Permanent Exhibition in China

Pioneer booth

Pioneer China Holding Co., Ltd. (PCH) set up a booth at the Permanent Exhibition on Japan Energy Conservation and New Environmental Technology being held in Liaoning Province. The exhibition is being hosted by the Japan-China Economic Association until May 2012 at the Liaoning Technology Transfer Centre Building in the city of Shenyang, Liaoning Province, with support from the Liaoning Science and Technology Department and Liaoning Environmental Protection Department. The exhibition aims to promote business in the fields of energy conservation and the environment in both Japan and China. Pure Malt Speakers were showcased at the Pioneer booth. Displays explained the speakers' main environmental technologies, such as the use of whiskey barrels instead of new wood, low VOC emissions, and the reduced use of petroleum-derived parts.

Nature Festival

Pioneer's current headquarters, the Kawasaki Plant, participated in a local nature festival held in September 2009. Many members from the local government, companies and NPOs participated, making for a very lively event enjoyed by large crowds. Pioneer exhibited its Pure Malt speakers, and set up a plasma TV at its booth that was made of Japanese cedar obtained from forest thinning. A documentary titled "Shintsurumi Soshajo (marshaling yard)" was screened.

Scene from event

Screening of archive film

Kawagoe Environmental Forum

The 8th Kawagoe Environmental Forum was held by the Kawagoe Environmental Network in February 2010. Pioneer's Kawagoe Plant in Saitama Prefecture has participated in this event since it was held for the first time. This year, reports included "AVIC-HRZ900 Car Navigation System with Fuel Efficiency Analysis Function", "Environmental Efforts at Pioneer Facilities" under the title of "Pursuing Eco-Friendly Products" and "Environmental Practices at Pioneer's Kawagoe Plant."

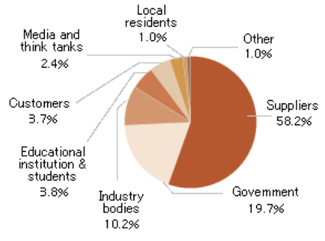
Elementary School Pupils Visited the Kawagoe Plant

118 third grade students from the nearby Yamada Elementary School took a field trip to Pioneer's Kawagoe Plant in May, 2010. After a brief orientation session, the students were divided into groups for a tour of the plant. The tour focused on the anechoic room, studio, recycling center, facilities on the roof of building 5 that include photovoltaic panels, and racing cars used in actual eco-car races. A commemorative photo was taken of each group on the roof of building 5 during the tour.

In front of the recycling center

Eco-car

External Inquiries



In FY2010, Pioneer received 294 inquiries about its environmental conservation activities. (in Japan)

Social Activities to Preserve the Environment

As a responsible corporate citizen, Pioneer undertakes various environment-related social activities aimed at realizing a sustainable society.

PET Bottle Cap Collection for Vaccines

Pioneer collects caps as well as, and separately from PET bottles. As the caps are made from high-purity polypropylene, they can be sold as recycled resources. After collection, the caps are recycled by a recycling company, but the profits on sales are used to purchase vaccines under a JCV sponsorship program*.On March 2010 we have donated the amount enough vaccine for approximately 2,000 children.

* JCV sponsorship program: Program aimed at enlisting the cooperation of companies in fund-raising activities to provide vaccines against infectious diseases for children all over the world whose lives might thereby be saved, as well as related facilities and equipment, and at actively promoting support activities.

Some of the PET bottle caps collected by Pioneer


Loading caps collected (200kg per bags)

Cleanup Activities

Pioneer makes a group-wide effort to keep the streets around company plants and commuter routes free of refuse by volunteer employees under its Zero Refuse Campaign. The campaign not only preserves the local environment, but improves environmental awareness among employees and contributes to environmental communication with local residents.


Headquarters (Kawasaki, Kanagawa)


Kawagoe Plant (Saitama Prefecture)


Pioneer micro technology3 (Yamanashi)


Pioneer communications (Saitama)


Oirase Gorge Clean Project Towada Pioneer (Aomori Prefecture)

Cleanup Activities Overseas

PHK Cleanup Activities


Group photo of participants

As part of its social action program, PHK (a Pioneer-owned manufacturing and sales company in Hong Kong) cleaned up an uninhabited island populated by Chinese White Dolphins in the surrounding waters. Held on August 23, 2009, the event was a joint effort between the PHK CSR Committee and Eco Association Limited, aimed at observing the Chinese White Dolphins to gain an understanding of their ecology.

PAT Cleanup Activities


Group photo of participants

PAT (a Pioneer-owned manufacturing company in Ohio, USA) is carrying out a volunteer cleanup effort at the nearby Great Miami River Recreation Trail, as part of its local beautification support. It is cleaning up all areas surrounding a scenic 2.5 mile section of a paved bike path within the conservancy park district.

Forest Conservation Activities

The Pioneer Group conducts continual forest conservation activities.

Pioneer Forest

In May 2010, approximately 70 employees and their families participated in the 11th Pioneer Forest Event near Lake Kamakita in Saitama Prefecture. The adults spent most of their time pruning trees on steep slopes deep in the mountains, while the children tried their hand at making bread and name plates. "It was a much better experience for the kids than I had expected," one participant commented. "My kids even said they want to make bread at home now." Another participant remarked: "It was fun baking bread and exploring the forest." Other participants praised the event as a meaningful experience.


Tree pruning


Bread making

Corporate Forestry


Forest thinning

Tohoku Pioneer is participating in the Corporate Forestry Project, sponsored by Yamagata Prefecture. The project brings together four companies from Tendo city in an agreement with the Yamagata Prefecture Forestry Incorporated Foundation to support the diverse functionality of the Tendo city Nukuzu-area mountain forest. Located next to Tendo city's Jagaramogara, it has been declared a national treasure. The employees of Tohoku Pioneer joined in to help plant trees, clear brush, prune branches, and cut down trees.

Forestation/Tree-Planting Activities


In front of the tree planted

An environment week was established at the Manaus Plant, PBL (Pioneer-owned manufacturing company in Brazil), and with help of the local staff there, Ipê trees (the national tree of Brazil) were planted around the plant. Once the trees mature, they will bloom with beautiful flowers of yellow, purple, or pink.

Light-Down Campaign

Since 2003, the Ministry of the Environment has conducted its CO_2 Reduction/Light-Down Campaign to encourage facilities and homes to turn off lights in an effort to combat global warming. In 2009, Pioneer turned off all lighting at its facilities nationwide, including signs and advertising lights, during the Black Illumination 2009 campaign on June 21, the day of the Summer Solstice, and the Tanabata Light-Down campaign on July 7. Lights were turned off on both occasions from 8:00 PM to 10:00 PM, saving some 246 kWh of electricity.

lights on
Pioneer Finetech (Pioneer logo) Pioneer FA (parking lot lights)


lights off

Environmental Education

The Pioneer Group educates all its executives and employees in environmental conservation. Pioneer' s educational activities are not restricted to within the company, but extend to families too, and enable the company, unions, employees and their families to act together. The company also presents awards for outstanding contributions to conservation activities.

Internal Education

To strengthen the environmental governance of the Pioneer Group, Pioneer has integrated the ISO14001-certified environmental management systems at its facilities in Japan, with the facilities sharing the same environmental training content. In addition, information concerning the independent environmental efforts of each plant are added to e-learning materials.

Pioneer Environmental Contribution Award

Award winners
(by remote conference system)

The Pioneer Group presents the Pioneer Environmental Contribution Award to the company's plants, groups and individuals that have contributed to environmental conservation activities. Patents judged to have made a particular contribution to environmental conservation are recognized by receiving the Environmental Patent Award. The Pioneer Environmental Contribution Award was presented to nine groups and individuals out of 48 candidates in FY2010. The top award in the business category went to "Efforts in Reducing Use of Materials that Impact the Environment." In the private theme category it went to "Environmental Contribution Efforts by all in the department." In the Environmental Patent Award category, one patent judged to have contributed to improving the environment was selected from patents that had their applications filed in FY2009. The award ceremony was carried out via remote conference system (CCS-Prime Cyber Conference System) for remote plants.

COCO-chan Campaign

COCO-chan and friends

The COCO-chan Campaign aims to reduce electric power consumption in the homes of employees in order to cut CO_2 emissions, the main cause of global warming, by calling for companies to cooperate in the efforts of the Japanese Electrical Electronic & Information Union to reduce CO_2 emissions. The campaign is held over the four months from June to September every year. In FY2010, 802 people participated in the campaign. 60% of the families succeeded in lowering their electrical usage compared to the previous year, and 10% reduced their usage by 40% or more.

Environment Monthly Photo Contest

My Favorite Autmn is Almost Here

The Kawasaki Plant, the Company's current headquarters, held the Environment Monthly Photo Contest for the June 2009 issue of the Environment Monthly. 24 photos were submitted by 12 photographers. Five winners were selected by the Photography Club.

Number of Holders of Main Environment-related Qualifications

FY ended March 2010

	Qualification		No. of qualified persons
National qualification	Pollution-related	Environmental Pollution Control Operator (Air, Water, Noise, Vibration)	22
	Energy	Registered Energy Manager	12
		Qualified Person for Energy Management	9
		Boiler Operator	25
	Waste	Administrative Officer for Special Management of Industrial Waste	40
	Handling of hazardous materials	Hazardous Materials Officer	195
		Specified High Pressure Gas Handling Supervisor	42
		High Pressure Gas Handling Supervisor	5
		Work Supervisor (Organic Solvents, Lead, Specified Chemical Substances)	384
		Toxic Substances Handling Officer	5
	Other	Industrial Safety and Health Manager, Waste Disposal Facility Technology Manager	35
	Environmental management	Internal Environmental Auditor (in Japan)	83
		Internal Environmental Auditor (Overseas)	171

Topics

Local Production for Local Consumption at Employee Cafeteria

Chinese Quince trees

Chinese Quince trees on the grounds of the Kawagoe Plant bear a great deal of fruit during autumn. As part of the local production for local consumption effort, the cafeteria used the fruit to make a seasonal Chinese Quince based salad dressing. This fresh and tasty new dressing was a major hit among employees.

Winner of Sainokuni Green Plan Award

Presentation of award

Trees near entrance

Pioneer FA (PFA) received the Sainokuni Green Plan Award for excellence under the Saitama greening plan notification system. To promote the creation of green spaces, Saitama Prefecture has introduced regulations for obligatory notification of greening plans when constructing buildings with a site area of 3,000m2 or more. Particularly outstanding plans are awarded the Sainokuni Green Plan Award. PFA was commended for “locating benches around the green zone with its diverse variety of trees and providing the opportunity to come into close contact with greenery” ; “positioning the symbol tree near the entrance to the building as a means of catching visitors’ attention” ; “conducting good management of old trees through regeneration by sprouting"; and “the president himself being involved in upkeep and management and the company engaging in a Value Greenery campaign.” The award was presented by Kiyoshi Ueda, Governor of Saitama Prefecture, on May 17, 2009.

Environmental Education

2009

Month	Awarding Body	Description	Recipient
November	Green Purchasing Network	The Demand Bus System using a Pioneer car navigation system wins the 11th Green Purchasing Award	Jointly awarded to Pioneer and Iizuna-machi, Kamiminochi-gun, Nagano Prefecture
October	3R Promotion Council	The Pure Malt Speakers wins the 3R Promotion Council Chairman's Award in the 3R Promotion Contributors Awards	Pioneer
	Ministry of Economy, Trade and Industry, and Clean Japan Center	The Pure Malt Speaker series wins the METI Industrial Science and Technology Policy and Environment Bureau Director General's Award at the Resource Recycling Technology System Awards	Pioneer
May	Saitama Prefecture	Sainokuni Green Plan Award	Pioneer FA

2008

Month	Awarding Body	Description	Recipient
November	Eco-Products Awards Steering Committee	CYBER NAVI AVIC-VH9000 won the Chairperson's Award (Excellentprize), Eco-Products Awards Steering Committee	Pioneer
June	MOI (Thai Ministry of Industry)	Prime Minister Industry Award 2008 (Thailand)	Pioneer Manufacturing (Thailand) Co., Ltd. [PTM]
March	Aomori Prefectural Government	Grand Prix in the Aomori Environmental Activity Partnership Awards	Towada Pioneer Corporation
January	The Energy Conservation Center, Japan	2007 Excellent Energy Conservation Manager in the Agency for Natural Resources and Energy Director-General's Awards	Hideo Maeda, General Affairs Department, Pioneer Plasma Display Corporation

2007

Month	Awarded by	Description	Awarded to
November	Yamanashi Center for Climate Change Actions	Award for Excellence in the Eco-Energy Category of the 2007 Stop Global Warming-Activity Contest	Pioneer Micro Technology Corporation
	Miyagi Prefectural	Grand Prix in the Implementation Purchasing Awards	Pioneer System

2006

Month	Awarded by	Description	Awarded to
October	3R Promotion Council	3R Promotion Council Chairman's Award in the 3R Promotion Contributors Awards	Pioneer Service Network Corporation World Parts Center
March	Corporate Liaison Council	Excellent Corporation Award 2005 awarded by the Corporate Liaison Council on the Environment of Yamanashi Prefecture	Pioneer Display Products Corporation Yamanashi Plant
February	Chubu Bureau of Economy, Trade and Industry	Chubu Bureau of Economy, Trade and Industry General Director's Award in the 2005 Awards for Excellence in Plant Energy Management	Pioneer Display Products Corporation Headquarters & Shizuoka Plant
February	Kanto Area Electricity Use Rationalization Committee	Grand Prix in 2005 Chairman's Awards	Pioneer Headquarters
February	Green Purchasing Network	Economy, Trade and Industry Minister's Award in the 8th Green Purchasing Awards	Pioneer

2005

Month	Awarded by	Description	Awarded to
October	3R Promotion Council	3R Promotion Council Chairman's Award in the 3R Promotion Contributors Awards	Pioneer Micro Technology Corporation and Pioneer Communications Corporation
October	MOI (Thai Ministry of Industry)	Pure Malt Speaker Project won the Clean Japan Center Chairman's Award in the Resource Recycling Technology System Awards	Pioneer Tokorozawa Plant
February	Aomori Prefectural Government	Plasma TV PDP-435SX won the Energy Conservation Center Chairman's Award in the 15th Energy Conservation Grand Prize	Pioneer

2004

Month	Awarded by	Description	Awarded to
October	3R Promotion Council	3R Promotion Council Chairman's Award in the 3R Promotion Contributors Awards	Pioneer Precision Machinery Corporation and Towada Pioneer Corporation
February	Japan Electric Association	Economy, Trade and Industry Minister's Award for Excellence in Plant Energy Management	Pioneer Plasma Display Corporation (former NEC Plasma Displays)
February	The Energy Conservation Center, Japan	Kyushu Bureau of Economy, Trade and Industry General Director's Award	Pioneer Plasma Display Corporation (former NEC Plasma Displays)

Environmental Education

2003

Month	Awarded by	Description	Awarded to
October	3R Promotion Council	3R Promotion Council Chairman's Award in the 3R Promotion Contributors Awards	Pioneer Headquarters, Tokorozawa Plant, Kawagoe Plant, Omori Plant, Pioneer Display Products Corporation Headquarters & Shizuoka Plant and Yamanashi Plant
April	Japan Federation of Printing Industries	AVIC-DR2500 "DVD Raku-Navi" won the Special Award in the Japan Packaging Competition	Pioneer Kawagoe Plant
March	Ministry of Economy, Trade and Industry, and Clean Japan Center	The "DVD Mini Rakura" project won the Encouragement Award in the Resource Recycling Technology System Awards	Pioneer Tokorozawa Plant

2002

Month	Awarded by	Description	Awarded to
October	3R Promotion Council	3R Promotion Council Chairman's Award in the 3R Promotion Contributors Awards	Pioneer Headquarters, Omori Plant, Tokorozawa Plant, Kawagoe Plant, Corporate Research and Development Laboratories, Pioneer Video Corporation Kokubo Plant and Tatomi Plant, Shizuoka Pioneer Corporation, Tohoku Pioneer Corporation Tendo Headquarters
February	Kanto Bureau of Economy, Trade and Industry	Kanto Bureau of Economy, Trade and Industry General Director's Award in the 2001 Awards for Excellence in Plant Energy Management	Pioneer Tokorozawa Plant

2001

Month	Awarded by	Description	Awarded to
October	3R Promotion Council	3R Promotion Council Chairman's Award in the 3R Promotion Contributors Awards	Pioneer Headquarters, Tokorozawa Plant, Kawagoe Plant, Omori Plant, Corporate Research and Development Laboratories, Tohoku Pioneer Corporation Tendo Headquarters, Pioneer Plasma Display Corporation (former NEC Plasma Displays), Shizuoka Pioneer Corporation, Pioneer Video Corporation Tatomi Plant
June	Sainokuni Saitama Environmental Promotion Council	Saitama Environmental Award	Pioneer Tokorozawa Plant

2000

Month	Awarded by	Description	Awarded to
October	3R Promotion Council	3R Promotion Council Chairman's Award in the 3R Promotion Contributors Awards	Pioneer Tokorozawa Plant, Kawagoe Plant, Pioneer Plasma Display Corporation (former NEC Plasma Displays), Shizuoka Pioneer Corporation, Pioneer Video Corporation Tatomi Plant

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