



Protecting the Environment

Expectations are high for activities to protect that global environment at ICT companies. Thus far, we have established a Green ICT Vision 2020 that focuses on three areas—the realization of a low-carbon society, the promotion of a recycling-based society, and the preservation of biodiversity—and are promoting a multifaceted approach.

The proactive promotion of activities necessitates the upgrading and strengthening of an environmental management framework. We will make efforts to strengthen a global, seamless environmental management framework as the NTT Communications Group. To this end, we will aggressively pursue protection of the global environment in all processes pertaining to our business activities, ranging from reduced electricity usage and improvements in efficiency as well as procurement to operations and waste disposal.

We will thereby help to establish an environmentally friendly society and ensure that the Earth remains in a healthy state for future generations through our core businesses.

Basic Philosophy and Vision

While emphasizing the philosophy in the Global Environmental Charter established by the NTT Group, our environmental protection activities take shape as the Green ICT Vision 2020 that applies that philosophy to the characteristics of our business. We set initiative goals and implement measures on an ongoing basis.

▶ NTT Communications Group Global Environmental Charter

The NTT Group has established the NTT Group Global Environmental Charter to promote Group-wide consideration and action relating to environmental protection from a global perspective. This philosophy and policy form the basis for the NTT Communications Group Global Environmental Charter, which is being disseminated among employees of the Group as a set of guidelines for the implementation of environmental protection activities.

→Click here for details regarding the NTT Communications Group Global Environment Charter.

▶ Green ICT Vision 2020

In fiscal 2010, the NTT Communications Group formulated Green ICT Vision 2020, which sets forth new policies for environmental protection activities and numerical target values for fiscal 2020. We are promoting our three “eco” initiatives of Green of ICT, Green by ICT, and Green with Team NTT, in order to help enrich and streamline social activities as well as to support the harmonious coexistence of all living things on our beautiful planet.

The promotion of these initiatives enables us to address the need to achieve a low-carbon society, promote a recycling-based society, and preserve biodiversity, as well as to help create a society that cares and shows consideration for the global environment, humans, and other living things.

Green of ICT:	Reducing the increasing environmental impact of ICT equipment and facilities through the use of technology and process innovations.
Green by ICT:	Reducing society's environmental impact through the use of ICT to improve transportation efficiency for people and goods, and by moving away from resource-intensive operations to, for example, a paperless workplace.
Green with Team NTT:	Initiatives to reduce environmental impact in employees' homes and local communities.

→Click the following for details regarding Green ICT Vision 2020.

Activity Achievements in Line with CSR Indicators

In fiscal 2014, in line with the three focus areas—the realization of a low-carbon society, the promotion of a recycling-based society, and the preservation of biodiversity—we worked to reduce the environmental impact associated with our business activities and in particular took steps to reduce our CO₂ emissions and improve the final disposal rate both in Japan and overseas. In specific terms, we achieved results across the Group, including the expansion of environmental management at overseas bases, the extension of greenhouse gas reduction initiatives across our global operations, the implementation of PCB waste disposal and of measures to improve the final disposal rate.

In fiscal 2015, we will maintain our focus on reducing environmental impact both in Japan and overseas. In advancing a variety of global measures, we will continue to channel our energies toward reducing electric power consumption, recycling waste, cutting back the volume of paper use, and promoting initiatives aimed at preserving biodiversity.

Chart Showing Targets and Achievements

		Fiscal 2014	Fiscal 2014 Achievements	Achievements	Fiscal 2015 Initiatives	Fiscal 2020 Targets
CO ₂ Emissions	Telecommunications equipment	Target: 263,000 t-CO ₂ or less* ¹	254,000 t-CO ₂ * ¹ ● Power source equipment measures: reduction of 11,000 tons ● Air-conditioning equipment measures: reduction of 12,000 tons ● Telecommunications equipment measures: reduction of 4,000 tons ● New technology introduction measures: reduction of 1,000 tons	☘☘☘	Target: 262,000 t-CO ₂ or less* ¹ ● Power source equipment measures: reduction of 300 tons ● Air-conditioning equipment measures: reduction of 13,000 tons ● Telecommunications equipment measures: reduction of 5,000 tons ● New technology introduction: reduction of 100 tons	318,000 t-CO ₂ or less* ¹ (reduction of more than 15% from the fiscal 2008 level)
	Offices	Target: 16,000 t-CO ₂ or less* ¹	16,000 t-CO ₂ * ¹ ● Installing reflector lights and adopting automatic light level adjustment systems ● Lowering blinds before leaving the office, and ensuring that lights are turned off when not in use ● Continued promotion of dressing warmer in winter and cooler in summer	☘☘☘	Target: 16,000 t-CO ₂ or less* ¹ ● Using energy-efficient PC settings, unplugging PC power cables when leaving the office, turning off PCs when not in use ● Selective operation of elevators and air-conditioning systems ● Continued promotion of dressing warmer in winter and cooler in summer	
Waste	Recycling rate for dismantled telecommunications equipment	Target: At least 99%	99.9% ● Improving the recycling rate for glass and ceramic scrap (glass scrap, FTC,* ² and ball insulators)	☘☘☘	Target: At least 99% ● Internally using dismantled telecommunications equipment ● Promoting the internal use of unneeded articles of inventory and other items ● Promoting further recycling, including at Group companies Goal for all waste: Final waste disposal rate* ³ of 31% or lower	Goal for all waste: Final disposal rate* ³ of 1% or lower
	Recycling rate for construction waste	Target: Specified materials: At least 99% Other: At least 70%	Specified materials + metals: 98.1% Other: 79.6% ● Promoting measures to reduce final disposal volume ● Completely eliminating waste that must be transported directly to final disposal plants ● Promoting subcontracting to processing companies with higher recycling rates	☘☘☘	Target* ⁴ : Specified materials + metals: At least 99% Other: At least 75% ● Promoting measures to reduce final disposal volume ● Promote sending to intermediate processing plants that offer high recycling rates	Target* ⁴ : Specified materials + metals: At least 99% Other: At least 75%
	Recycling rate for office waste	Target: At least 84.0%	88% (for a total emission volume of 2,566 tons) ● Promoting thermal recycling ● Promoting the evaluation of telecommunications building and data center status and subcontracting to processing companies with higher recycling rates	☘☘☘	Good progress Target: At least 88% ● Promotion of thermal recycling ● Evaluation of the status of communications buildings and data centers; promotion of subcontracting to processing companies with higher recycling rates	—
Paper usage (office paper, A4 size equivalent)		Target: 8,500 sheets per person	8,081 sheets per person ● Strengthen measures at the level of individual organizations based on data on multifunction printer usage ● Promote paperless working style that utilizes ICT equipment	☘☘☘	Target: 8,500 sheets per person ● Strengthen measures at the level of individual organizations based on data on multifunction printer usage ● Promote paperless working style that utilizes ICT equipment	8,500 sheets per person (30% reduction per person from the fiscal 2008 level)

Self-assessment: ☘☘☘ Good progress ☘☘ Basically on target ☘ Slightly behind target

(Scope: 14 domestic companies of the NTT Communications Group)

*1 The CO₂ emission coefficient is 0.33 kg-CO₂/kWh.

*2 Fire-tight covers (FTC) are used to protect communication cables from fire.

*3 Final disposal rate is calculated as the volume of waste transported to the final processing site divided by the total volume of waste generated.

*4 Materials were reclassified in fiscal 2011.

Activity Indicators and Achievements (at Overseas Bases) Item

Item	Implementation rate*
Switch off unnecessary lighting, air-conditioning, and PCs	94%
Promote the sorting and recycling of waste according to the circumstances of each building	72%
Implement double-sided and double-page office paper printing	84%

*Implementation rate = Number of bases implementing target ÷ total number of bases

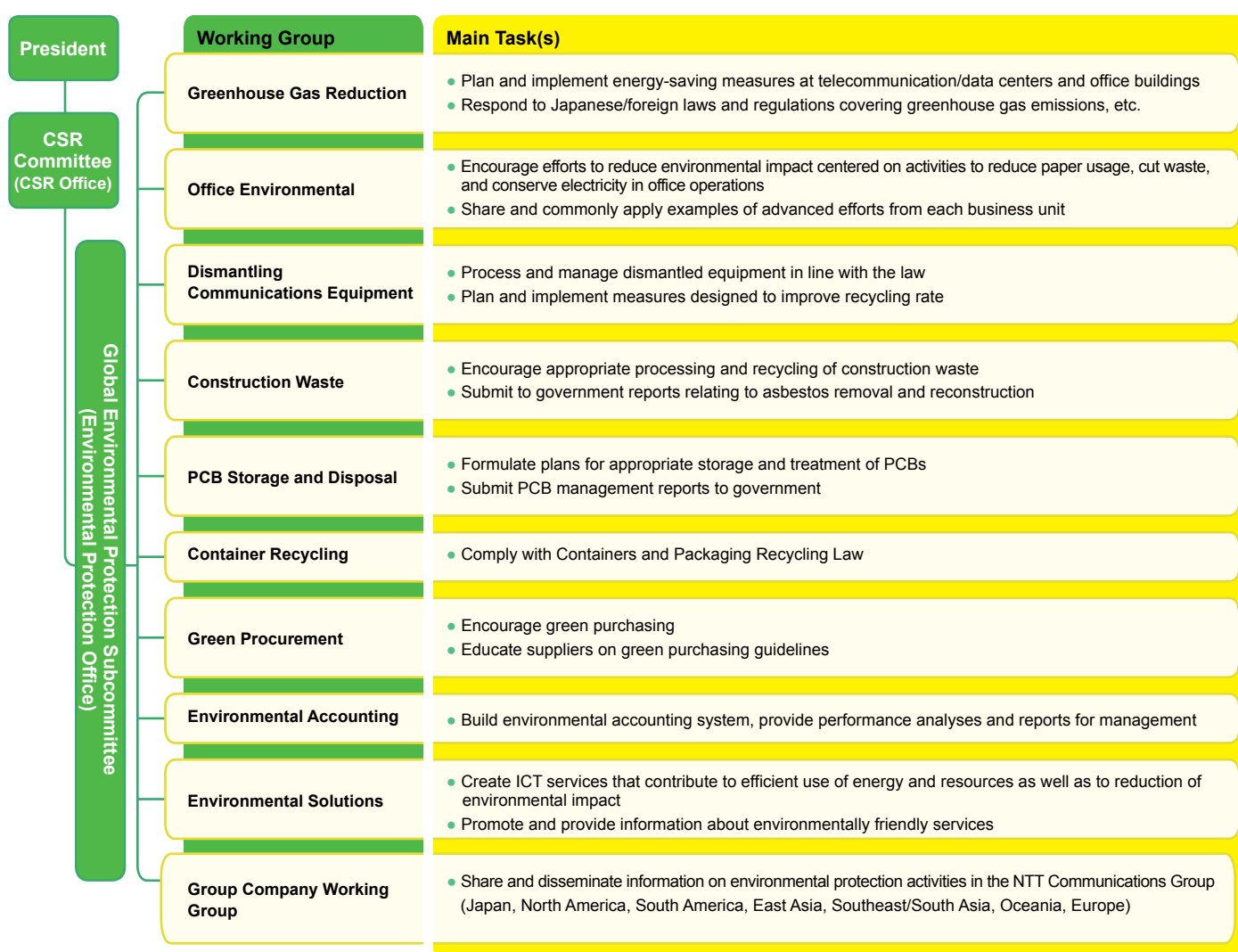
Environmental Management

Promotion Framework toward Reduction of Environmental Impact and Fiscal 2014 Initiatives

In order to continuously promote environmental protection initiatives, we formed a working group for each issue, involving the entire NTT Group in tackling environmental issues. Specifically, we hold Environmental Protection Subcommittee meetings at Group companies twice a year to formulate an overall plan encompassing a wide range of issues, including the reduction of greenhouse gas emissions and waste and the promotion of environmental solutions. Through these meetings, we also share information on the results of actions taken and promote the horizontal deployment of various initiatives. In recent years in particular we have been making efforts to ascertain and curb environmental impact by means of Scope 3 at the supply chain level and expanded the scope of the categories covered in fiscal 2014.

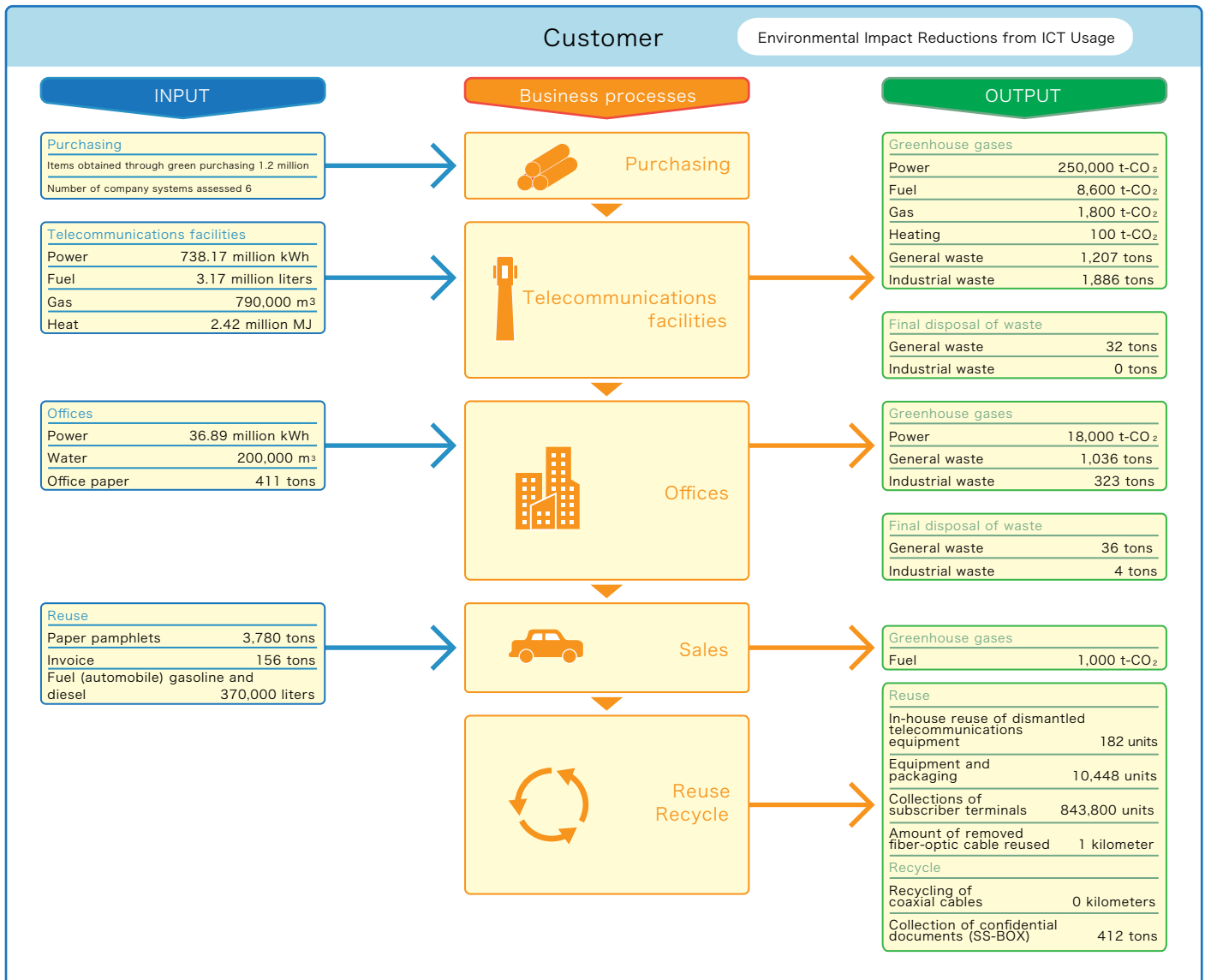
As far as the environmental management structure for our bases in Japan is concerned, we are promoting environmental protection activities at 14 companies. At our overseas bases, with a view to promoting global environmental management we are expanding our management bases, assigning officers responsible for environmental matters, gathering activity information, and working to share that information between bases in Japan and overseas. In the years to come, we will hold global environmental management meetings and would like for these to lead to further reductions in environmental impact.

Environmental Protection Framework



Environmental Impact of Business Activities

Fiscal 2014 Material Flow



In performing these calculations, we have referred to unit emission databases and other materials—produced through studies by the Ministry of the Environment and other government ministries and agencies—and expanded the scope of target categories. Of the 15 target categories, our calculations include 10 that are relevant.

■ Volumes of Scope 3 Emissions by Category

Categories	Greenhouse Gas Emissions (t-CO ₂)
1 Purchased goods and services	507,735
2 Capital goods	573,292
3 Fuel and energy activities not included in Scope 1 and 2	65,303
4 Upstream transportation and distribution	4,850
5 Waste generated through business activities	247
6 Business travel	14,345
7 Employee commutation	12,157
8 Upstream lease assets	0
9 Downstream transportation and distribution	0
10 Processing of products sold	0
11 Use of products sold	2,312,675
12 Disposal of products sold	109,655
13 Downstream leased asset	0
14 Franchise	80,593
15 Investment	0
TOTAL	3,680,852

Environmental Accounting in Fiscal 2014

The NTT Communications Group tabulates its environmental conservation costs (categories corresponding to business activities) and the economic benefit derived from its environmental conservation activities (real financial impact) in line with Environmental Accounting Guidelines 2005, issued by the Ministry of the Environment, and NTT Group Environmental Accounting Guidelines. The environmental conservation cost in fiscal 2014 increased by approximately ¥0.14 billion year on year to ¥3.02 billion, consisting of around ¥1.72 billion in investments and about ¥1.3 billion in expenses.

On the other hand, the economic benefit derived from environmental conservation in fiscal 2014 increased by approximately ¥0.83 billion from the previous fiscal year to ¥2.58 billion, which included around ¥0.8 billion (compared with an increase of ¥0.24 billion in the previous fiscal year) gained from the implementation of measures to reduce electricity use, including electricity saving and conservation efforts. Equipment re-use had the effect of reducing the cost of new purchases by around ¥1.11 billion (compared with ¥0.54 billion in the previous fiscal year).

■ Environmental Conservation Costs (Categories Corresponding to Business Activities) (Millions of yen)

Category	Key Measures		Investment		Expenses	
			FY2013	FY2014	FY2013	FY2014
(1) Business area cost			1,553	1,606	340	415
Breakdown	1. Pollution prevention costs	· Oil tank facility for power generator use · Management of items using PCBs	21	121	30	112
	2. Global environmental conservation costs	· Measures to reduce CO ₂ emissions resulting from electricity use	1,523	1,485	89	89
	3. Resource circulation costs	· Waste disposal and reuse expenses	9	0	221	213
(2) Upstream / downstream costs	· Measures to recover, recycle and reuse telecommunications equipment		19	114	795	755
(3) Administration costs	· Environmental conservation management activities		0	—	74	74
(4) R&D costs	· Allocated portion of NTT Group environmental R&D costs		—	—	1	56
(5) Social activity costs	· Costs of supporting volunteer participation		—	—	7	3
(6) Environmental remediation costs			—	—	97	0
Total			1,572	1,719	1,313	1,303

■ Economic Benefit Associated with Environmental Conservation Activities (Real Financial Impact) (Millions of yen)

		FY2013	FY2014
Revenue	Revenues from sales (cables, metal scrap, etc.)	125	185
Cost reductions	Reductions in expenses derived from measures such as reduced electricity usage	560	795
	Reductions in cost of purchases due to reuse of dismantled telecommunications equipment	571	1,114
	Decrease in postal and paper costs from utilization of Mypage	481	475
	Other	7	7
Total		1,744	2,576

Target period: April 1 - March 31

Scope: NTT Communications Group

Tabulation and disclosure: Figures were tabulated in line with the Ministry of the Environment's Environmental Accounting Guidelines 2005 and NTT Group Environmental Accounting Guidelines. Expenses include personnel expenses but exclude depreciation.

Environmental Management Structure

Acquiring ISO 14001 Certification

Five companies within the NTT Communications Group had acquired ISO 14001 certification as of March 31, 2015. Through contracts with outside environmental consultants, certified departments and companies undergo internal audits once a year to ensure appropriate implementation of environmental management and continual improvements that will allow a steady reduction of the environmental impact of business activities. Regular reviews and renewal examinations are also undertaken by an independent certification body. Outstanding issues are thus identified and remedial measures swiftly taken. Besides initiatives centering on reductions of office paper and electricity usage and the promotion of waste recycling, we are encouraging measures toward the creation of an environmentally friendly society.

■ ISO 14001-certified Company

ISO 14001-Certified Company		Date of Certification
NTT Communications Corp.	Procurement Dept.	October 1999
	Solution Services Dept.	March 2004
NTTPC Communications, Inc.		November 2003
NTT BizLink, Inc.		March 2007
NTT Com Solutions Corp.		April 2007
NTT Plala Inc.		December 2011

As of March 31, 2015

Environmental Audits and Environmental Surveys

Guided by its Global Environmental Charter, the NTT Communications Group issues, twice-yearly PDCA and other reports at the Global Environmental Protection Subcommittee, an organization that comes under the CSR Committee. These reports outline details of the various activities administered by the 10 working groups (WGs) that drive the Group's environmental protection activities. In addition to sharing information and calling for further development of effective initiatives, we are promoting environmental management on a Groupwide basis.

Compliance with Environmental Legislation and Regulations

The NTT Communications Group devotes itself to ensuring legal compliance and proper risk management while liaising closely with the other corporations of the NTT Group. Including environmental laws and ordinances that look to curtail pollution, emissions standards and the PRTR Law*, legislation of all kinds is fully communicated to related departments, and independent guidelines have been established for in-house application. We are also enhancing compliance education. We were not involved in any litigation or legal violations pertaining to environment-related accidents, infringements, fines or complaints during fiscal 2014. We plan to continue our companywide efforts to prevent environmental pollution and comply with related laws and regulations.

*PRTR Law: Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof

Promoting Green Procurement

NTT Communications issued its Guidelines for Green Procurement in 1999. In 2010, the Company brought these guidelines into compliance with the Energy-Saving Performance Guidelines enacted by the NTT Group and, at the same time as adding the energy-saving (Green of ICT) perspective of ICT itself that was considered an issue, renamed the Energy-Saving Performance Guidelines as the Guidelines for Green Procurement.

By applying these guidelines, NTT Communications has added an environmental conservation element to such areas as its own approaches to environmental conservation in the selection criteria of suppliers with which the Company allows dealings and in procurement.

Through its green procurement initiatives NTT Communications works to improve its environmental conservation activities hand in hand with all its suppliers and would like to continue to be of service in realizing further contributions to society.

■ Status of Green Procurement and Green Purchasing

	Fiscal 2010	Fiscal 2011	Fiscal 2012	Fiscal 2013	Fiscal 2014
Green procurement of goods excluding office supplies (1,000 units)	1,370	1,230	1,380	1,410	1,200
Green procurement of office supplies (1,000 units)	470	350	260	240	250

Environmental Education Initiatives

We offer environmental education to all employees, aiming to raise their awareness of environmental matters. We are also proactive in environmental awareness activities as part of our CSR efforts, extending the scope of participation to include not just employees, but also their families and business partners.

In fiscal 2014, while continuing to offer environmental education in a variety of places, including all-employee training sessions, we undertook a range of environmental awareness and education activities, including a cleanup of the areas surrounding our offices and promotion of the ecocap movement. In addition, woodland conservation activities were carried out at NTTPC Communications, NTT Com Solutions and NTT Com Marketing in a bid to raise the level of understanding regarding the importance of protecting the natural environment.

Creating a Low-Carbon Society

Although the advancement and spread of ICT have given rise to such benefits as an affluent society and convenient lifestyles, the increase in power consumption due to ICT-related equipment is placing enormous pressure on the environment. Fully aware of this situation, NTT Communications Group employees set targets from three viewpoints—telecommunications, offices and overseas bases—and are working together to reduce CO₂ emissions. Particularly in the case of improvements in the energy efficiency of telecommunications equipment, which account for around 90% of total CO₂ emissions from business activities, they are currently making efforts to be the first in the industry to introduce leading-edge technologies.

Reduction of Greenhouse Gases

Fiscal 2014 Results and Fiscal 2015 Outlook

When calculating the volume of greenhouse gas emissions that we generate, we include in the scope buildings owned by other companies, including those buildings where we rent space as well as data centers (DCs) that provide colocation services, in addition to buildings owned by the NTT Communications Group.

In fiscal 2014, CO₂ emissions by the NTT Communications Group totaled 270,000 t-CO₂. This was 9,000 t-CO₂ less than the Group's established target and a decrease of approximately 1.1% compared with the previous fiscal year. Furthermore, in fiscal 2014 sales per unit of CO₂ emissions improved around 4.0% compared with their fiscal 2013 level due mainly to a decrease in the amount of CO₂ emissions and an increase in sales.

In the case of telecommunications equipment, we concentrated our efforts on proactively curtailing the power used for air-conditioning by, for example, conducting "airflow improvement" initiatives in the server and machinery rooms at communication and data center buildings and installing integrated air-conditioning control systems such as SmartDASH. In offices, we continued with the detailed energy-saving measures that had been implemented previously. By taking these initiatives we had a major effect and data center sales remained robust, ending in the results given above.

In fiscal 2015, the NTT Communications Group will continue to make a concerted effort to save energy. By deploying R&D technologies and introducing energy-saving rules and other new measures, we set a target for CO₂ emissions of 278,000 t-CO₂ or less.

At our overseas facilities fiscal 2014 CO₂ emissions showed an upward trend, totaling approximately 237,000 t-CO₂ (approximately 231,000 t-CO₂ for data centers and 6,000 t-CO₂ for offices), reflecting a significant increase in demand for cloud services and data centers as well as the wider scope of calculation. We are working to reduce electricity use at overseas data centers by operating highly energy-efficient buildings and facilities, such as data-center buildings that have acquired LEED* certification. To the same end in Japan, we are also rolling out high-performance solutions designed to reduce air-conditioning energy consumption. We will continue these measures in fiscal 2015.

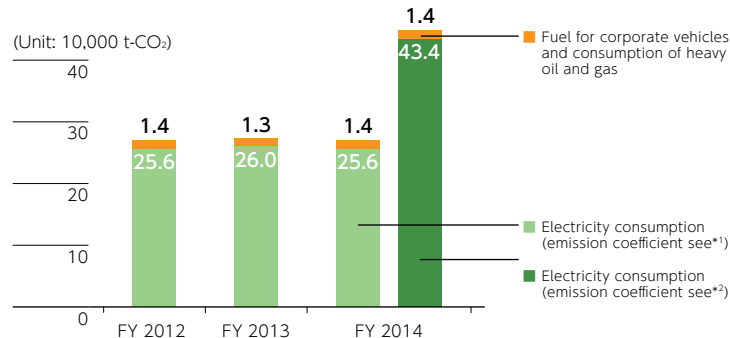
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conditioning energy consumption. We will continue these measures in fiscal 2015.

We are taking steps to consolidate the servers, air-conditioning, UPS, lighting, and other equipment and facilities previously set up and operated by customers at data centers and increase the efficiency of society's power consumption by providing data centers and cloud services.

* An acronym for Leadership in Energy and Environmental Design, LEED is a certification system for entire buildings promoted by the U.S. Green Building Council that evaluates energy savings and environmental impact.

CO₂ Emissions from Business Activities

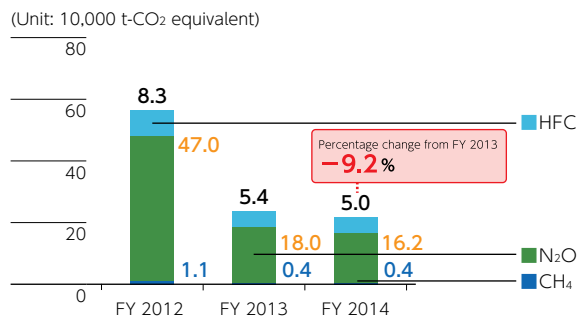


(Scope: 14 domestic companies of the NTT Communications Group)

*1 The CO₂ emission coefficients used in the light green bars are the fiscal 2020 target of 0.33 kg-CO₂ per kWh of the Federation of Electric Power Companies in Japan.

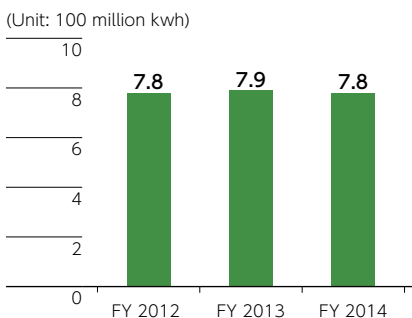
*2 The CO₂ emission coefficients used in the dark green bar are from electric power companies.

Other Greenhouse Gas Emissions (Converted to CO₂ Equivalents)



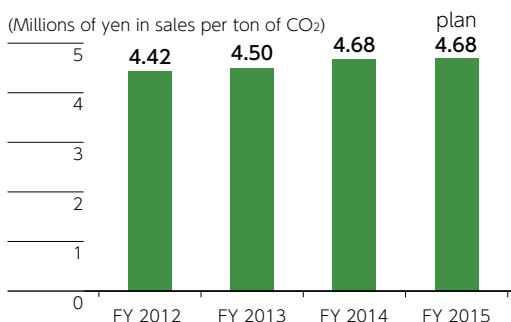
(Scope: 14 domestic companies of the NTT Communications Group)

Power Purchases



(Scope: 14 domestic companies of the NTT Communications Group)

CO₂ Emissions per Unit of Sales



Initiatives Related to Telecommunications Facilities

Fiscal 2014 Results and Plans for Fiscal 2015

In fiscal 2014, CO₂ emissions increased approximately 2% from their fiscal 2013 level, to 254,000 t-CO₂ (9,000 t-CO₂ below our target), due to factors such as the start of sales at our Tokyo No. 6 Data Center and the augmentation of cloud server equipment.

We expect CO₂ emissions to trend upward in fiscal 2015 due to ongoing robust data center and cloud service sales. However, we have set our emissions target at below 262,000 t-CO₂, which we aim to achieve through new measures that include the application of R&D technologies and "airflow improvement" initiatives.

Acquisition of LEED, the international standard environmental certification, for data centers in various countries

Customers throughout the world are becoming more aware of the need to reduce their impact on the environment. As they explore initiatives to achieve this objective, they are increasingly looking at strong environmental performance and reliability as crucial factors in the selection of data centers, which are a major source of energy consumption. One selection criterion is LEED, a global standard for green building certification.

While making efforts to reduce the environmental impact of its data centers throughout the world and promoting the acquisition of LEED certification, NTT Communications is implementing a raft of initiatives and installing systems of the kind shown below. Through these initiatives, we are continuing to reduce the amount of energy and resources involved in the operation of data centers and proposing "green ICT," which is linked to levels of customer satisfaction and cost reductions.

◆ Air-Conditioning

We are working on the visual display of temperatures inside all server rooms. We are also introducing measures to reduce the amount of energy used in cooling, promoting measures such as SmartDASH*¹, which automatically controls temperatures; Aisle Capping*², which improves cooling efficiency by dispersing waste heat from air-conditioning and ICT equipment; and outdoor air cooling, which uses cold air from outdoors to efficiently cool ICT equipment.

◆ Lighting

We are reducing the amount of energy used for lighting by employing LEDs and motion sensors.

◆ Other measures

We are encouraging the use of solar power, wind power and other forms of natural energy. Introducing high-voltage direct current to decrease AC/DC conversion loss and supply power to ICT equipment more efficiently, we are using rotary uninterruptible power supplies (UPSs) with low power loss.

*¹ SmartDASH is a registered trademark of Vigilant Corporation of the United States.

*² Aisle Capping is a registered trademark of NTT Facilities, Inc.

Promoting Groupwide, Multifaceted Initiatives to Reduce Electricity Consumed by Air-Conditioning by 20%

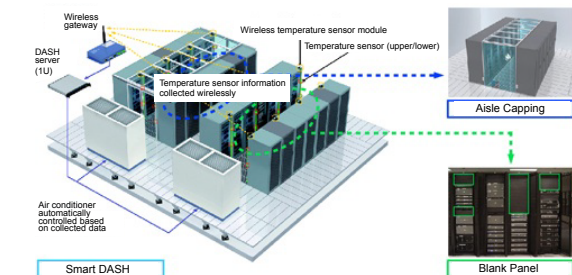
Having targeted a 20% reduction in the electricity consumed by air-conditioning, we are implementing a range of measures. In fiscal 2014 in particular, we promoted the Groupwide deployment of technologies brought together in the latest facilities as "airflow improvement" initiatives to include existing facilities.

In fiscal 2014, we installed SmartDASH, Aisle Capping and Blank Panel in 10 communications buildings and data center buildings (a cumulative total of 23 buildings). SmartDASH is a system that visualizes temperature zones in server rooms, detects areas that are too cold, and automatically readjusts temperatures. Aisle Capping is a technique that physically separates the intake (low

temperature) and exhaust (high temperature) air from IT equipment by strategically placing vinyl sidewalls and ceilings around IT equipment in the aisles between rows of server racks. By combining Aisle Capping with Blank Panel, a technique for enhancing cooling effectiveness within racks by blocking the front of unused spaces in server racks, we brought about an improved cooling effect between the racks.

When initially introduced, there were buildings that fell below the target. However, having investigated the cause and implemented measures, including the making of temperature adjustments and changing the positions of the underfloor panels, all the buildings have achieved reductions that are above the initial targets. NTT Communications will continue to roll out these solutions in a sequence in Japan and overseas and bring about further reductions in power consumption.

■ SmartDASH, Aisle Capping, Blank Panel

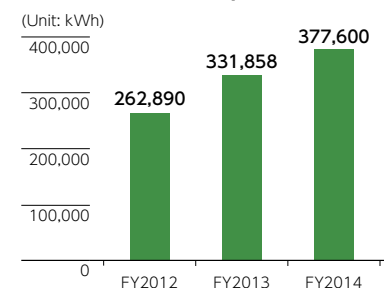


Introducing Solar Power Generation Systems That Actively Utilize Renewable Energy

NTT Communications has been engaged in power generation using solar power generation systems at its communications and data center buildings in Tokyo since 2009.

Currently having three system units in operation, we generated approximately 378,000 kWh of electricity in fiscal 2014. The power generated is used to light communal areas of the buildings. Overseas, we generate solar power at our data centers in Singapore and Malaysia. We have installed a solar-powered heating system at our Hong Kong data center, a wind power generation system at our data center in India, and a hydroelectric power generation system at our data center in Vietnam. In fiscal 2014, these facilities generated approximately 5.73 million kWh of electricity. In the years to come, we will continue to promote the utilization of environment-friendly renewable energy.

■ Overall Amounts of Electricity Generated by Solar Panels at Data Centers in Japan



■ Solar panels installed at Tokyo No. 5 Data Center



■ Solar panels installed on the rooftop of our data center building in Malaysia



→ [Click here for details regarding solar power generation.](#)

Office Initiatives

Fiscal 2014 Results and Plans for Fiscal 2015

From the perspective of supplying services to customers, communications facilities—including data centers and telecommunications buildings—necessitate the constant use of a specific amount of electric power. For that reason, drastic measures to save electricity in their offices are to be expected.

In fiscal 2014, we continued to follow energy-saving measures that have been in place since the Great East Japan Earthquake. Accordingly, CO₂ emissions amounted to 16,000 t-CO₂ (approximately on target), the same level as in fiscal 2013. Although we will relax these measures slightly in fiscal 2015, we are targeting emissions of 16,000 t-CO₂ or less. We intend to meet this objective by revising energy-saving rules and by increasing the deployment of thin-client PCs.

Summer and Winter Energy-Saving Measures

In addition to summer and winter energy-saving measures, the NTT Communications Group implements ongoing electricity-saving measures—including the use of energy-saving settings on PCs, the operation of fewer lighting fixtures and elevators, and the adjustment of air-conditioner settings—and strives to reduce its energy consumption in Japan.

During the summer months, the Group targeted a reduction in electricity consumption of 30% from the fiscal 2010 level. Over the period in question, the Group accordingly undertook a variety of measures. For example, every effort was made to maintain higher air-conditioner settings (at 28°C in summer), cut back the number of lights employed, encourage the use of stairs when going up four floors or down five, and encourage employees to wear summer clothing and switch off office automation equipment when leaving the office. Thanks largely to these endeavors, in fiscal 2014 the Group achieved a reduction in electricity consumption measured in kWh of approximately 32% at its three principal Hibiya, Shiodome, and Tamachi buildings. As in summertime, we introduced measures to save energy in winter, including setting air-conditioning temperatures at 20°C.

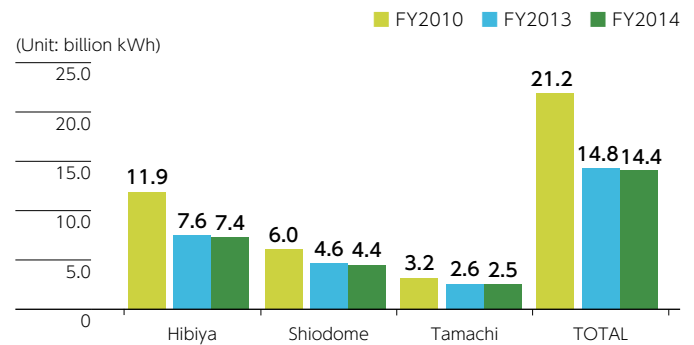
In the same way as at our bases in Japan, we are adopting an aggressive stance on measures to save energy at our overseas facilities, having established as an indication the switching off of unnecessary lighting, air-conditioning and personal computers. The main initiatives involve switching off lighting, air-conditioning and PCs when not in use and at the end of the work day; using the power saving setting on PCs; and making a thorough effort to adjust office thermostats. In this way we are promoting the same level of energy saving awareness as at our offices in Japan.

Besides these, we are implementing a variety of initiatives in each region.

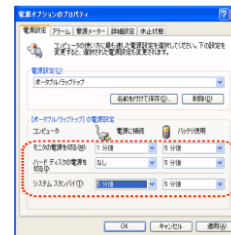
- China Temperature settings for air-conditioning and establishment of periods when its use is forbidden
- Hong Kong Temperature settings for air-conditioning and the establishment of periods when lighting is switched off
- Singapore Last person to leave the office confirms that power sources are switches off lighting
- Europe Use of equipment that switches off lighting automatically
- United States - Establishment of periods when lighting is switched off

In China and Vietnam we also set power saving targets, take a proactive and progressive approach to reduction measures and aim to meet these targets.

Average electrical consumption in office buildings between June and September



Automatically changing the settings of PCs to electricity saving mode



Elevator display promoting the 4 up, 5 down campaign



Office Database Visualization Site

To enable support to be given to the autonomous office-related environmental initiatives of each business operation, we have been operating the Office Database Visualization Website, which tallies and visualizes environmental impact data related to electricity, paper, and waste for each organizational unit, on our Company's intranet since August 2009.

In fiscal 2014, we posted in-house information, on a monthly basis by organization, showing the amount of electricity consumed by each existing organizational unit (the total amount as well as by floor space), paper use (total usage, double-sided printing rate, consolidated printing rate), and office waste recycling rate (on a per-building basis). In addition, we launched "Ecogy-san's Eco Department Visits" for the purpose of the internal horizontal development of each department's best practice measures for reducing the impact on the environment.

Employees responsible for promoting office-related environmental measures in each organization analyze the data posted on this website and give consideration to their business content and characteristics. Following autonomous PDCA cycles, they use this site to chart improvements toward meeting designated indicators through such means as the self-organized deployment of best practice measures.

Office Database Visualization Site



Promoting Use of the Company's Internal Cloud

NTT Communications possesses a number of internal systems to provide its services to customers. Migrating these internal system networks to and integrating them with internal ICT infrastructure by means of a private cloud using server virtualization not only lessens environmental impact by rationalizing the number of servers, but the move also contributes to more robust service business continuity plans (BCPs) for customers utilizing the system. Based on the awareness of these kinds of aims, the Company is working to develop utilization of its internal cloud.

As of the end of fiscal 2014, we had migrated 220 internal systems to the internal ICT infrastructure, a move that reduced the number of servers that accommodate the migrated system by around 57%.

Looking ahead, we plan to migrate and integrate our internal ICT infrastructure in Japan with that overseas, while working on efforts to reduce environmental impact on a global basis.

Transportation Initiatives

Electronic Billing Initiative

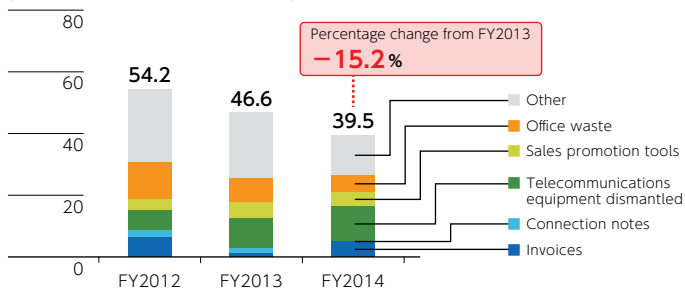
We annually audit the amount of transportation for invoices, sales promotion tools, and office waste. We voluntarily seek ways to streamline transportation, such as reducing the number of transportation trips, the volume of items transported and the transportation distance, and otherwise enhance logistics.

We have cut the use of transportation by promoting the convenience of our online billing information service. The volume of paper used for invoices fell to 140 tons in fiscal 2014, a year-on-year reduction of approximately 15.7%.

We also implemented various measures to improve our transportation efficiency. Our total transportation decreased 15.2% compared with the previous fiscal year to 395,000 ton-kilometers as a result of increases in sales tools and all types of manuals, a 26% decrease in waste, transportation efficiency gains and greater use of information technology.

■ Goods Transportation Volume under the Revised Energy Conservation Law

(Unit: 10,000 metric ton-kilometers)



(Scope: NTT Communications [non-consolidated])

Reducing Fuel Use by Company Vehicles

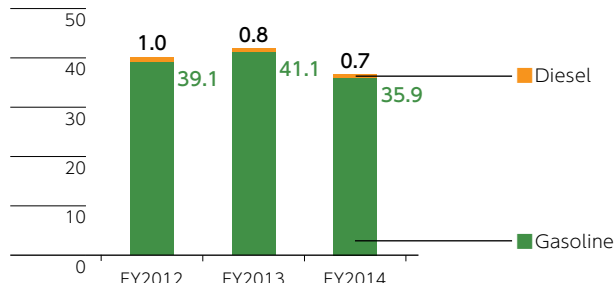
To help solve pollution problems and contribute to the realization of a low-carbon society, we have devised measures to introduce environmentally friendly vehicles and are addressing a reduction in the amount of fuel used by Company vehicles across the entire group.

The Company is currently reviewing the number of its sales vehicles and steadily promoting measures that include the more widespread adoption of driving techniques that show consideration for the environment. As a result, gasoline and oil consumption by Company vehicles in fiscal 2014 totaled 359,000 liters and 70,000 liters, respectively. Compared with the previous fiscal year, these figures represent respective decreases of approximately 55,000 liters (13%) and 1,000 liters (13%).

In the case of the introduction of eco-cars, the target set for fiscal 2015 was for 100% introduction. The Company is promoting the optimum stationing of vehicles and a switching over to eco-cars, while steadily promoting them in association with an organizational review. As a result, the rate of eco-car introduction showed a 1% increase from the previous fiscal year, and the Company was able to attain the ratio of 99% of its entire fleet.

■ Fuel Consumption by Company Vehicles

(Unit: 10,000 liters)



(Scope: 14 domestic companies of the NTT Communications Group)

Preventing Air Pollution and Promoting Energy Conservation through Electric Propulsion Ships

The undersea cable-laying ship Subaru is one of the few ships in Japan with an electric propulsion system (i.e. electricity from a generator drives the propulsion motor). The system helps prevent air pollution by reducing NOx and SOx contained in engine exhaust. Since the Subaru was built for a specialized use, unlike standard cargo vessels, the ship is characterized by low fuel consumption. Furthermore, in operating the ship, we realize energy savings of about 10% per year by efficiently controlling the number of generator-driven engines operating, for example, running three engines when heading to a construction site and running two engines when returning.

In addition, rust and seashells on the hull are eliminated by sandblasting to reduce resistance in the water, and very smooth paint conforming to the International Convention on the Control of Harmful Anti-Fouling Systems on Ships (AFS Treaty) is used to paint the hull after sandblasting, to conserve energy.

We are also conserving energy by introducing LED lighting for ships and reducing their environmental impact by replacing their air-conditioning systems.

■ Cable-laying ship Subaru (9,557 tons)



● Ship Energy Efficiency Management Plan (SEEMP) Implementation

The adoption of SEEMP became a mandatory requirement in July 2011 under the MARPOL international treaty for the prevention of marine pollution caused by ships. As a result, it is now a compulsory requirement for ship operators to adopt the most effective operating methods (which include speed reduction, selection of the most appropriate route taking into consideration ocean currents and weather conditions, and proper maintenance) in order to curtail the amount of CO₂ emitted and to promote improvements in energy efficiency based on a PDCA cycle. NTT Communications had formulated a plan by January 2013, a plan that has been retained for all its ship operations.

Reducing Environmental Impact through Our Services

Green ICT Initiatives

Green ICT involves aiming to reduce the environmental impact of ICT itself and utilizing ICT effectively to advance environmental impact reductions and environmental protection activities.

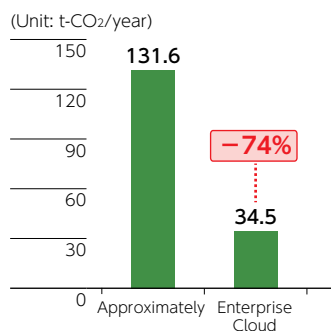
Reducing the environmental impact of ICT itself is referred to as “Green of ICT,” which specifically refers to initiatives for reducing negative environmental impact by reducing the power consumption of ICT systems and recycling resources. In contrast, utilizing ICT to reduce environmental impact and increasing positive impact on the environment is referred to as “Green by ICT” and includes measures such as improving the efficiency of transportation of people and goods. NTT Communications applies both Green of ICT and Green by ICT approaches to its pursuit of “Green ICT.”

Reducing CO₂ by Enterprise Cloud Service

On a global basis, NTT Communications provides ICT solutions, including networks, cloud services, applications and security. In addition to contributing to society, these solutions help reduce environmental impact by curtailing CO₂ emissions.

Linking data centers, networks and servers, Enterprise Cloud is one example of a cloud service for companies that we are uniquely positioned to offer as a telecommunications operator. The service features a host of options, such as the ability to allocate resources flexibly in accordance with customer needs. As the core service can be used for backbone operations, customers can utilize Enterprise Cloud as a virtual server in place of servers and storage that they previously had to install and operate themselves. This service reduces the number of servers that companies need to operate, achieving a decrease equivalent to 97 t-CO₂ per year (approximately 74%)* for small- and medium-sized companies. The service's system environment can be configured to use consistent specifications in Japan and overseas, thereby reducing configuration and operational costs substantially compared to what a client would experience if installing their own independent systems.

CO₂ Reduction Effect



Reducing CO₂ Emissions by Cloud-Based, Next-Generation Building Management System

In November 2014, NTT Communications together with Takenaka Corporation began providing a Next-Generation Building Management Platform that enables cloud-based management services for all types of building.

In recent years, growing needs from the environmental and safety aspects have resulted in a gathering of pace in the complexity of and advanced connectivity required in the management of buildings. Through the deployment of cloud-based building management, the newly launched platform helps in the efficiency of building management, an area in which a shortage of

human resources is causing concern, while controlling with pinpoint accuracy the power saving of all the electrical equipment inside buildings. In the years to come, we will contribute to the realization of smart communities with this platform, our aims including the widespread supply of power supply management that utilizes big data analysis technologies.

Environmental Solutions Label System

The NTT Group is exploring the idea of an Environmental Solutions Label System for self-certification of environmentally friendly ICT solutions and services. To qualify, ICT solutions and services will have to achieve CO₂ reductions of at least 15%, as assessed through objective evaluation of environmental impact reduction benefits. The entire NTT Group provides these environmentally friendly services in order to help reduce the environmental impact caused by society.

In utilizing this certification system, we at NTT Communications Group have registered a cumulative total of six solutions, NTT Bizlink having obtained the label for its TV conference systems in fiscal 2014. Details of these are described on the NTT BizLink website together with quantitative CO₂ reduction effects.

Environmental Solutions Label



→ [Click here for details on an Environmental Solutions Label System.](#)

Acquisition of eco-ICT Mark

After performing a self-assessment of our CO₂ reduction measures, we submitted an application in accordance with the ICT Ecology Guidelines created by the ICT Ecology Guideline Council* and acquired the eco-ICT Mark.

The council created and published guidelines for appropriate CO₂ reduction measures to be implemented by telecommunications carriers, clearly defining the standards for procuring systems and data center services from the viewpoint of reducing power consumption. These guidelines have been subsequently revised with a fifth version publicly announced in February 2014. We will continue to participate in this initiative and work to instill the guidelines throughout the Group on an ongoing basis.

* ICT Ecology Guideline Council: The council was established on June 26, 2009 by the following five industry organizations: the Telecommunications Carriers Association, the Telecom Services Association, the Japan Internet Providers Association, the Communications and Information Network Association of Japan, and the ASP-SaaS Industry Consortium (a designated nonprofit organization).

eco-ICT Mark



→ [Click here for details on the self-assessment checklist.](#)

Promoting a Recycling-Oriented Society

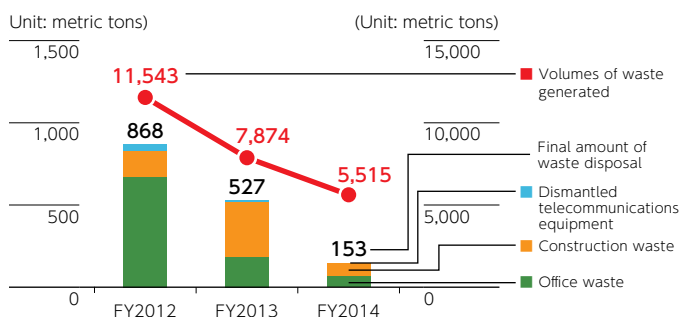
In aiming to contribute to the reduction of society's environmental impact, we will work to reduce the waste associated with business activities and undertake to improve our reuse and recycling rates on a daily basis. Specifically, the NTT Communications Group is working to reduce the volume of waste in three areas—dismantled telecommunications equipment, construction waste and office waste—and promoting reuse and recycling in various aspects of its business.

Achievements in Waste Reduction, Reuse and Recycling

In fiscal 2014, the final disposal of waste from dismantled telecommunications equipment amounted to 0.3 tons, construction waste 80.8 tons and office waste 71.5 tons. In overall terms, the total volume of final disposal waste decreased 374.5 tons compared with the previous fiscal year to 152.6 tons, while the total volume of waste generated decreased 2,358.6 tons to 5,515.2 tons.

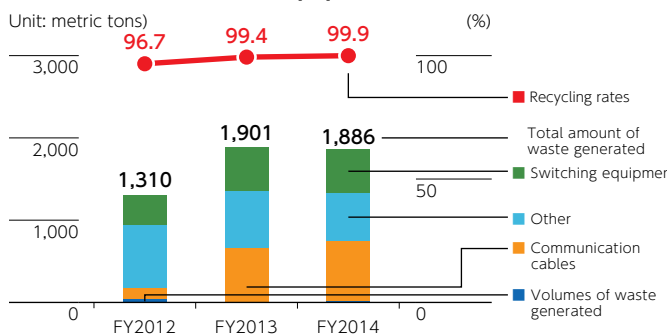
In fiscal 2014, the improvements in the recycle rates for office and construction waste were particularly remarkable. Comparing both with the previous fiscal year, we were able to increase the office waste ratio from 81.5% to 88.2% and that for construction waste from 89.0% to 92.5%.

NTT Communications Group Final Disposal Waste and Total Waste Generation



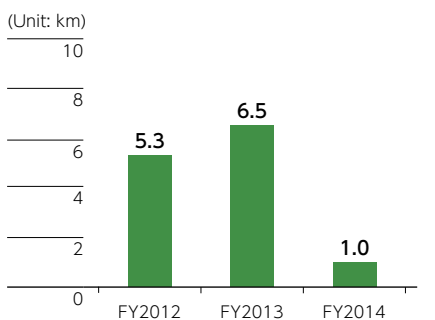
(Scope: 14 domestic companies of the NTT Communications Group)

Total Volumes and Recycling Rates of Dismantled Telecommunications Equipment



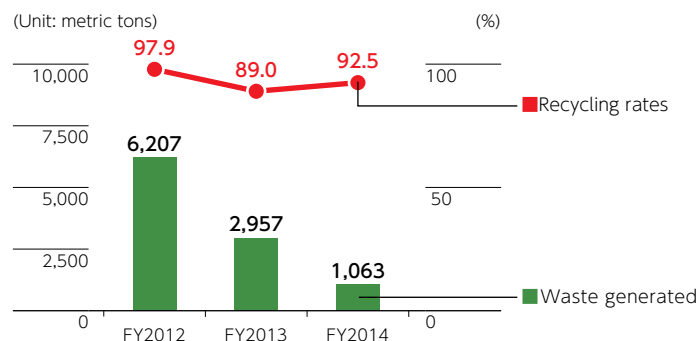
(Scope: 14 domestic companies of the NTT Communications Group)

Volume of reused fiber-optic cable



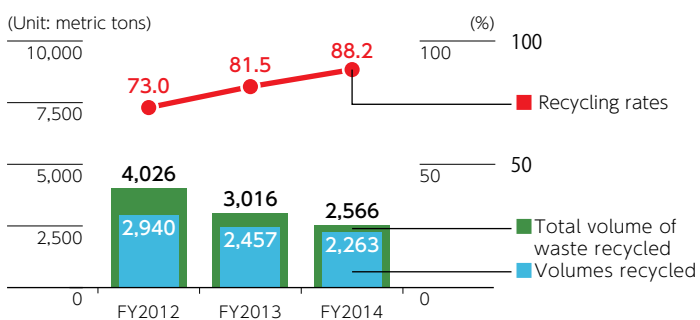
(Scope: 14 domestic companies of the NTT Communications Group)

Construction Waste Generation and Recycling Rates



(Scope: 14 domestic companies of the NTT Communications Group)

Total Office Waste and Recycling Rates



(Scope: 14 domestic companies of the NTT Communications Group)

Examples of Initiatives Designed to Reduce Paper Usage

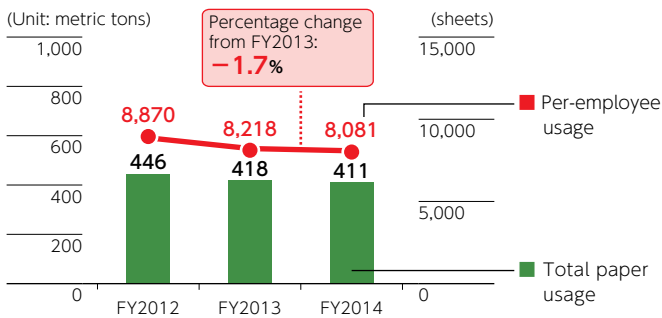
Reduction in Paper for Business Purposes

NTT Communications is working to reduce usage of all kinds of paper for business purposes, including paper for business purposes and paper for printing customer billing statements. In fiscal 2007, we established a paper usage indicator per full-time employee in order to reduce office paper usage.

Specifically, we encourage reduction efforts that include the number of sheets used and the double-sided printing rate by the use of printing log data from IC card multifunction printers. Initiative status data are collected by individual and section, with the results disclosed to all employees on a monthly basis. As a result of having continued to encourage the digitization of paper documents and paperless meetings that make use of projectors and tablets, in fiscal 2014 paper consumed per full-time employee (converted to A4-size office paper) was 8,081 sheets, which beat the target of 8,500 sheets.

Turning to our operations outside Japan, Group companies also reduced copy paper usage and promoted paperless meetings. Targets were set and initiatives accelerated in each of China, Thailand and Vietnam in particular.

■ Total and Per-Employee Office Paper Usage (Sheets)



(Scope: 14 domestic companies of the NTT Communications Group)

Encouraging Use of Tablet Terminals

Since fiscal 2011, we have been creating databases of service-related information and proposals as well as deploying and encouraging the use of tablet computers. From a sales perspective, the benefits are that the use of tablet computers enables easily understood, compelling proposals, including the showing to customers of videos showcasing and explaining our services. Having the benefit of not only enabling the creation of effective proposals, but also of dispensing with the need for proposal printouts and pamphlets outlining our services, it can be expected that tablet computers will have the added effect of reducing our use of paper.

The adoption of paperless meetings that make use of tablets continues at Group companies in an effort to further reduce paper use. Looking ahead, we will continue to focus our attention on this area while making more efficient use of the latest ICT equipment.

Effective Utilization of Food Waste

In addition to giving due consideration to the effective utilization of materials in offices, dealing with waste from cafeterias is taking on added importance. NTT Communications has introduced a raw garbage disposal machine to deal with the waste generated by its employee cafeteria. A system to recycle the waste into organic compost is in operation, with the Gunma branch of NTT East Kanshinetsu acting as subcontractor. In fiscal 2014, we processed 28.6 tons of kitchen waste. As a result, this was recycled and generated 2.86 tons of compost, which was put to use by farmers in the Kanto region and elsewhere.

This initiative is not merely an effective utilization of resources, as it is also important to note the CO₂ reduction effect from disposing of less waste by incineration. In continuing to promote this initiative we are strengthening environmental considerations in our day-to-day operations and at the same time improving employee awareness.

■ Bags of compost (Gunma Prefecture)



Biodiversity Conservation

Together with the prevention of global warming, the preservation of ecosystems, where living things co-exist in an intricate balance, has recently developed into a major environmental challenge with regard to the creation of a sustainable society.

NTT Communications has established a set of action guidelines with regard to biodiversity conservation in order to promote activities that take concerns in this area into consideration. Giving thorough consideration of all aspects of business activities, from the construction of facilities to their operation and dismantling, the Company implements multifaceted initiatives along the lines of environmental contribution activities that naturally include participation in local conservation activities and the dissemination of information.

Development of Activities in Line with Action Guidelines

Having formulated Biodiversity Conservation Action Guidelines, we are proactively developing approaches in line with each of the three environmental contributions through ICT—Green of ICT, Green by ICT and Green with Team NTT—that have been promoted for some time.

There is a growing awareness, on a global scale, with regard to biodiversity conservation. In the years to come, we will promote inspection efforts, identify issues and promote improvements across the Group as a whole, including at overseas bases.

■ Action Guidelines with Regard to Preservation of Biodiversity

1. Basic Policy: Compliance with NTT Group Biodiversity “Approach Concept,” Established by NTT Group

● Development Centered on Business Activities

The Group recognizes that all activity is inextricably linked to the planet and to biodiversity, understands that the scope and impact at home and overseas are related depending on the nature of a business, and promotes initiatives that are recognized as having a preservation effect.

● Development Centered on Contribution to Society

In partnership with its stakeholders the Group widely promotes initiatives toward the preservation of biodiversity, regardless of their relevance to its business.

2. Action Guidelines

- Implement actions that take into account the preservation of biodiversity in business activities (Green of ICT)
- Contribute to preservation of social biodiversity in business activities (Green by ICT)
- Deepen understanding of biodiversity, promote nature conservation activities together with employees, their families and the planet (Green with Team NTT)

■ NTT Communications Group Initiatives Relating to Preservation of Biodiversity

Initiative Items	Outlines of Initiatives
We implement actions that take into account the preservation of biodiversity in business activities (Green of ICT)	At the time of construction of a wireless relay station, conducting a habitat survey of the area's plants, birds and insects, and implementing a construction plan that does not destroy ecosystems. Removal of wireless relay stations should be carried out in the same way.
	Providing wireless relay station space in an effort to facilitate the observation of wild bird protection
	Decreasing electric power consumption by making air-conditioning more efficient and improving lighting in communications and office buildings as well as through PC energy-saving measures
	Reducing the impact on ecosystems of product procurement by procuring best-selling devices and green purchasing
	With the prevention of marine pollution as a basic policy, laying submarine cables that protect coral reefs and cleaning the ocean floor before and after laying cables
	Rainwater, recycled water used at data centers in Singapore, Hong Kong and Malaysia for air-cooled chillers and for watering plants. Reducing the amount of electricity used for lighting by efficiently applying natural daylight at data centers and office buildings in Vietnam
	Implementation of initiatives toward 5% year-on-year reduction in amount of water used at Taiwan office
We contribute to preservation of social biodiversity in business activities (Green by ICT)	Including biodiversity special features and disseminating information on the environment from home and overseas in “eco-goo.”
	Undertaking wildlife damage countermeasures that efficiently employ IT
We deepen understanding of biodiversity and promote nature conservation activities together with employees, their families and the planet (Green with ICT)	Elimination of disposable chopsticks in cafeteria
	Forest maintenance, logging and tree-planting in cooperation with NPOs (Ome City, Tokyo and Shiroy City, Chiba Prefecture)
	Encouragement of personal cup use at vending machines
	Participation by NTT Taiwan in flora and environmental protection activities organized by the Taiwan Environmental Information Association
	Forest environment conservation and tree planting through Tokyo Greenship Action

Considerations during Data Center Construction

As a global ICT company, we promote biodiversity considerations at our data centers. We promote a multifaceted approach at data centers in Japan and overseas.

Minimizing the Influence and Impact on Local Ecosystems

Large-scale facilities like data centers make it necessary to keep in mind the effect they have on the surrounding ecosystem, such as the use of water resources at such facilities, pollution and drought. Without compromising any unique vegetation in the surrounding area, times of construction and on-site maintenance require a basis that implements ways to derive benefit from them while conserving biodiversity.

Naturally, at the Serangoon Data Center that commenced operations in fiscal 2012, a way was thoroughly developed to ensure that hazardous substances such as oil do not become mixed into the on-site water and cooling water that makes effective use of rainwater and recycled water (desalination and re-treated water). While actively incorporating a wide range of trees that are native to the area, great consideration is given to the on-site vegetation by conducting felling of those trees through consultation with the National Environment Agency (NEA).

■Data center plantings give consideration to indigenous species



Consideration for Local Landscaping and Greening

We feel it is important to show consideration for biodiversity in facility designs that contribute to local greenery and in the surroundings.

At the Tokyo No. 6 Data Center, a large-scale urban facility that opened in fiscal 2013, we took advantage of funding from the Tokyo Metropolitan Park Association's Urban Green Fund, working closely with the community to promote greening activities. The green spaces within the site have been planted into two zones: spring/summer and autumn/winter, so that visitors can enjoy seeing flowers at the site throughout the year.

We have sought to achieve harmony between the data center and the surrounding community. For example, we have set up a wind-simulation environment and planted evergreen trees in the southwest corner, which is affected by wind.

■Spring/summer zone



■Autumn/winter zone



Laying of Submarine Cables

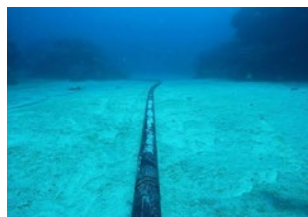
In constructing its undersea network infrastructure, NTT Communications' fundamental policy is to prevent marine pollution. We are signatories to treaties on the prevention of marine pollution and, in addition to complying with environmental legislation, undertake initiatives that place importance on coexistence with marine organisms and the fishery industry. Group company NTT World Engineering Marine Inc. (NTT-WE Marine), which handles the laying, burying and maintenance of underwater cables, promotes a strong awareness toward the preservation of the marine ecology.

Consideration Given to Impact of Cable-Laying

We conduct assessments prior to laying underwater cables and work with related government authorities and municipalities in carefully designing cable routes and drawing up construction plans. For example, we seek to avoid coral reefs and other inhabited areas in our efforts to avoid affecting the marine environment.

Moreover, before laying or burying submarine cables, we clean the planned ocean seabed route, bring to the surface debris from the seabed, including discarded nets, rope and wire for proper disposal as industrial waste to preserve the marine environment.

■Cables laid on sand, away from coral reefs



■Trash collected from the bottom of the ocean



Consideration for the Impact of Cable-Laying Ships

Marine organisms that infest the chain lockers and safety-maintaining ballast water of submarine cable-laying vessels have the potential to threaten native ecosystems in other parts of the ocean as vessels navigate from one area to another. As a result, the cable-laying vessel Subaru undertakes thoroughgoing measures to clean its anchor chain locker as part of its efforts to protect ecosystems. With regard to ballast water, ballast water treatment equipment that meets the standards set by the International Maritime Organization (IMO) was installed in January 2014. Since the equipment has an ultraviolet sterilization system that does not use chemical substances, impact on the environment is minimized.

In the case of ship paints, the effect that tin has on ecosystems has been recognized as an issue in recent years. We are therefore thorough in our use of tin-free paints in compliance with the AFS Convention (the International Convention on the Control of Harmful Anti-fouling Systems on Ships).

■Prior to hull painting



■After hull painting



Upon Construction and Dismantling of Relay Stations

Underpinning data communication networks, wireless relay stations are often located in rich natural areas, such as on hills and islands. We thus emphasize consideration for biodiversity in their operation.

As of March 31, 2015, 15 of our 106 wireless stations were in national parks or quasi-national parks. The NTT Communications Group carefully builds micro-roads, recognizing that we need to patrol and maintain these facilities, while adhering strictly to the law and our own environmental assessment methods. In undertaking assessments, we establish specific areas of concern and align construction processes accordingly. We adopt a multifaceted approach toward avoiding and minimizing any impact on the ecosystem. In addition, we strive to restore the environment to its original state prior to construction when dismantling wireless stations. We consult with local residents and use local soil in our restoration activities.

We have also been acting appropriately and conducting activities that provide facilities from the perspective of wildlife conservation. For example, every year since September 2012, the Amami Ornithologists' Club NPO has held a Chinese sparrowhawk migration birdwatching meeting within the NTT Communications wireless relay station in Amami City, Kagoshima Prefecture. Wireless relay stations are normally off limits, but having received a request saying that the area is suitable for monitoring the status of the ecosystem, events are held with employees in attendance.

Chinese sparrowhawk migration



Water Conservation Initiatives

NTT Communications is working to reduce the amount of water used in its offices. As one aspect of these activities, in May 2013 we began installing water-saving valves on the toilet units at our head office building (the NTT Hibiya Building). As the water-saving valves are capable of measuring and separating the flow of the amount of water necessary, we were able to cut our water use by around 45%. The valves also employ usage data to verify water savings and degree of environmental contribution.

We have installed these water-saving valves in 90 toilet units within the NTT Hibiya Building. The annual water-saving effect for fiscal 2014 was a decrease of approximately 9% compared with the NTT Hibiya Building's overall water usage prior to the valves' installation.

Water-saving automatic washing unit



Contributing to Ecosystem Conservation Using ICT

The damage to agriculture caused by wild boars and deer is becoming an issue of increasing concern across Japan's farming and mountain communities. The setting of traps is being used as one countermeasure to minimize the damage caused by wildlife. NTT PC Communications Inc. has developed "Mimawari Rakutaro" as one part of its "field cloud service." This is a wildlife observation and alarm device which utilizes an outdoor sensor that transmits data. In this manner, the company is contributing to countermeasures aimed at minimizing the damage caused by wildlife. Employing the communication services of NTT Docomo to automatically transmit a message to a designated mail address when a trap has been activated, the Mimawari Rakutaro device has brought about a significant reduction of the burden placed on patrols. As one version of Mimawari Rakutaro also comes equipped with a camera, the transmission of images further ensures an immediate response should a person be caught in a trap by mistake.

Since first going on sale in July 2011, Mimawari Rakutaro has been adopted by 40 local governments across Japan and contributed to ecosystem conservation in woodlands.

Mimawari Rakutaro



Educational Activities by goo Green Label Information Dissemination

The goo Green Label portal donates a portion of the profits generated through use of the site to organizations engaged in environmental protection and social activities. All users can participate in this initiative simply by changing over to "goo Green Label," the top design version of the "goo" web portal, and using the search engine. A total of 98 companies, including those in the NTT Group, have currently signed up as "Corporate Partners," a program that has been recommended for in-house use within those companies. Since its inception in August 2007, donations totaling 53.8 million yen have been made to 86 organizations, the majority of which are NPOs engaged in global environmental protection activities.

In fiscal 2014, we contributed a total of one million yen to the National Land Afforestation Organization, a public utility association, which undertakes tree-planting activities as part of revival efforts following the Great East Japan Earthquake. Working in cooperation with the artist/music management group Office Augusta under the theme of "music and ecology," we employed a plan linking Web and real events to promote awareness of environmental protection through education.

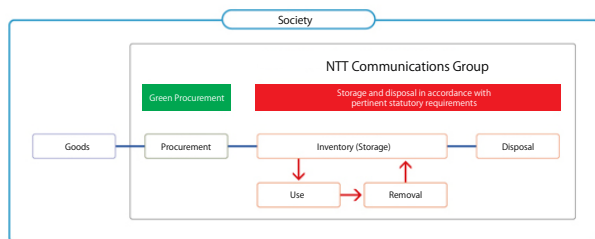
"goo Green Label" site



Preventing Environmental Pollution

The NTT Communications Group is taking various steps to avoid a broad range of environmental risks stemming from business activities, such as environmental pollution and hazardous substance leaks. Measures include the formulation of guidelines covering the introduction of low-emission vehicles, improvements to facilities and methods of operation, the bolstering of management, and education and training.

With regard to chemical substance management systems, in which society has shown a growing interest, the Company has implemented proper management in maintenance departments over the course of its history—based, for example, on the Waste Disposal and Public Cleansing Act, the Law Concerning Special Measures Against PCB Waste and the Electricity Business Act—including the assigning of vice presidents as managers. While conducting storage inspections on a regular basis, we are thoroughly overhauling the system to implement the rapid coordination of information to include senior management under the leadership of the President in the event of an earthquake or other disaster. By means of training sessions on environmental laws, we always keep abreast of the content of law revisions, share information among all Environmental Working Groups and plan optimization of our operations in a timely manner.



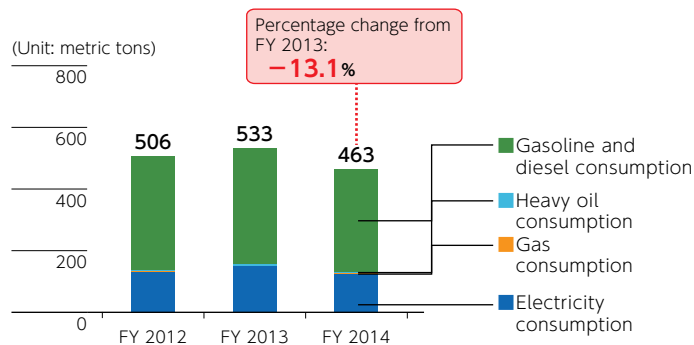
Handling of Environmentally Hazardous Substances

Air Pollution Countermeasures

Our business activities emit NOx and SOx, which cause air pollution. Approximately 70% of the NOx emissions are attributable to the use of gasoline and diesel in our operational vehicles, with the remaining 30% are emitted during the generation of electric power in communications buildings and other facilities. Most SOx (around 93%) is emitted during generation of the electricity we use.

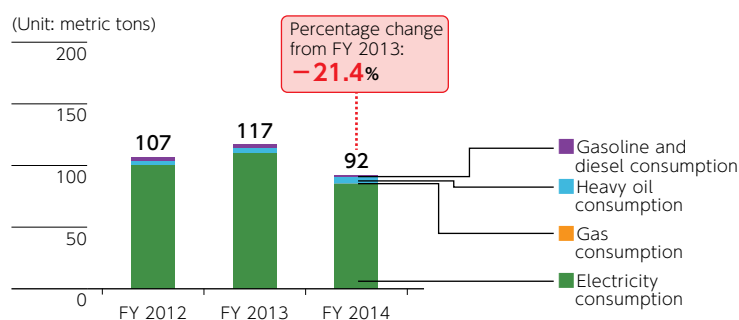
In fiscal 2014, we reduced our emissions of both NOx (by 70 tons year on year, to 463 tons) and SOx (by 25 tons to 92 tons) due in both cases to the lower levels of electric power consumed. In the years to come, we will encourage driving techniques that show consideration for the environment and review our vehicle fleet numbers while promoting the mitigation of global warming and the prevention of air pollution by taking steps to reduce electricity usage in our businesses.

NOx Emissions



(Scope: 14 domestic companies of the NTT Communications Group)

SOx Emissions



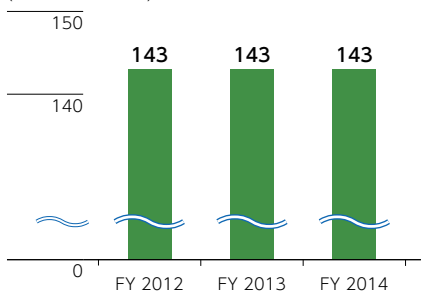
(Scope: 14 domestic companies of the NTT Communications Group)

Ozone-Depleting Substance Countermeasures

We dispose of ozone-depleting substances in an appropriate manner. The volume of specified halons used in our fire extinguishing equipment in fiscal 2014 was approximately 143 tons, roughly the same as in the previous fiscal year. Meanwhile, the volume of specified Freon gas (CFCs) used in our air-conditioning equipment in fiscal 2014 was up 12 tons from the preceding fiscal year to approximately 275 tons.

■ Volume of Specified Halons Used in Fire-Extinguishing Equipment

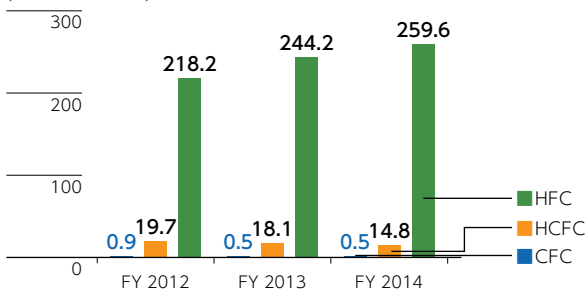
(Unit: metric tons)



(Scope: 14 domestic companies of the NTT Communications Group)

■ Volume of Specified CFCs Used in Air-Conditioning Systems

(Unit: metric tons)



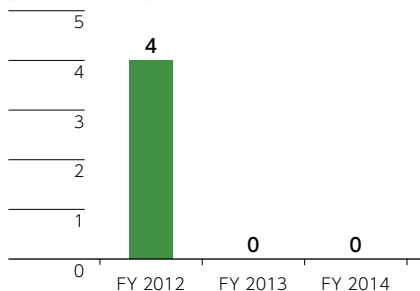
(Scope: 14 domestic companies of the NTT Communications Group)

Asbestos Countermeasures

Asbestos countermeasures for buildings and offices involved implementation of airborne asbestos surveys of buildings for which asbestos had been spray-applied to confirm that levels did not exceed statutory limits, which were revised in September 2006. As there were no buildings demolished in fiscal 2014, there were no asbestos emissions. We are going to continue systematic implementation of appropriate measures such as removal, containment or enclosure of asbestos in buildings where it is present in line with manuals issued by the Japan Construction Occupational Safety and Health Association and individual local authorities.

■ Asbestos Emissions

(Unit: metric tons)



(Scope: 14 domestic companies of the NTT Communications Group)

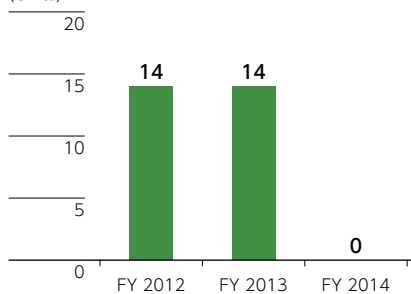
Storage and Management of PCB

NTT Communications appropriately manages devices that contain polychlorinated biphenyl (PCB). Such devices were used in the past as insulators for electrical facilities. As a policy for PCB storage, we have established a set of guidelines prescribing early detoxification treatment as well as methods for ascertaining conditions and management when the use of equipment containing PCBs is to be continued.

In fiscal 2014, we undertook the proper detoxification processing of 1,415 systems, comprising high-concentration PCB systems stored in Kyushu and Hokkaido and trace PCBs from all over Japan. Work on the remaining 2,203 high-concentration PCB systems, which are stored in Tokyo and Osaka, will commence as soon as the processing center preparations are complete.

■ Number of Transformers Stored

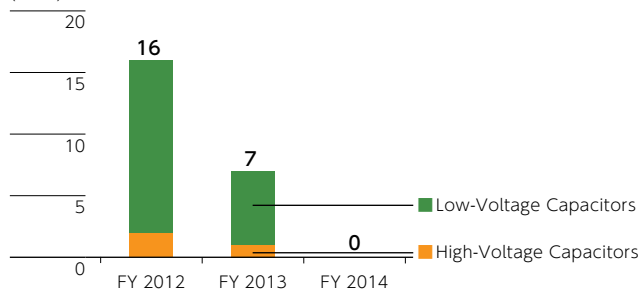
(Units)



(Scope: 14 domestic companies of the NTT Communications Group)

■ Number of Capacitors Stored

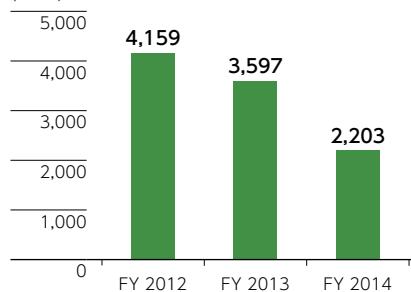
(Units)



(Scope: 14 domestic companies of the NTT Communications Group)

■ Number of Ballasts Stored

(Units)



(Scope: 14 domestic companies of the NTT Communications Group)

Chemical Substance Management in Anticipation of Emergency Situations

Against a backdrop of natural disasters that are occurring frequently on a global scale, in recent years society has shown a growing interest in the management systems needed for environmental pollutants in times of emergency. Owning and operating IT infrastructure throughout the world, we have been thorough in establishing storage and management systems while bearing “unlikely events” in mind for some time.

In the management of pollutants and PCBs in particular, we have implemented measures that recognize such factors as earthquakes, fires, flood controls, lightning protection, puncture resistance, ventilation and security. By carrying out periodic inspections, we are constantly confirming that such substances are properly managed. With regard to such events as major earthquakes and disasters, we have built a rapid verification system designed not only to prevent damage when a disaster first strikes but also from the perspective of preventing secondary disasters. We exercise great care in conducting uninterrupted operations in safety and security.

■ Number of PCB storage locations



■ Number of devices containing PCBs in storage



Cases of Major Leakage

There were no incidents involving major leakages in the NTT Communications Group in fiscal 2014.

Transport, Import or Export of Toxic Waste

In line with our policy of making an early effort to conduct the detoxification processing of PCBs, in fiscal 2014 we conducted the processing of those stored in Kyushu and Hokkaido. We will process the remainder, held in Tokyo and Osaka, as soon as processing center preparations are complete. We have no plans to transport, import or export any toxic waste.