

## Environment <Material Issue 3> Initiatives to Conserve the Global Environment

We are undertaking a variety of initiatives to contribute further to environmental conservation through our business operations and social contribution activities.

 <p>▶ <b>Environmental Management</b></p> <p>KDDI has prepared the “KDDI Environmental Charter” and “Medium-term Environmental Conservation Plan” to serve as the KDDI basic policy and plan on environmental preservation activities. In order to execute activities in an ever more effective way throughout the entire company, KDDI is constructing an “Environmental Management System” for checks on and improvements of the creation and action status of specific planning.</p>	 <p>▶ <b>Low-Carbon Society</b></p> <p>While the expansion of ICT use results in an increase in CO<sub>2</sub> emissions in some aspects, greater utilization of ICT could contribute to CO<sub>2</sub> emissions reduction by reducing the use of materials and transport. KDDI is promoting ICT-based energy conservation solutions to help bring about a low-carbon society.</p>	 <p>▶ <b>Recycling-Oriented Society</b></p> <p>KDDI promotes the 3R (reduce, reuse, recycle) with the aim of bringing about a recycling society. We make particular efforts to reduce landfill waste generated by removal of communications and other equipment, and set aggressive materials recycling ratio targets.</p>
 <p>▶ <b>Biodiversity</b></p> <p>KDDI is engaging in a variety of activities so as to make a diversified contribution to the preservation of biodiversity based upon the KDDI Action Guidelines on the Preservation of Diversity.</p>	 <p>▶ <b>Compliance with the Green Purchasing Law</b></p> <p>See information on KDDI’s status of compliance with the standards required by the Law on Promoting Green Purchasing.</p>	 <p>▶ <b>Eco ICT Mark</b></p> <p>KDDI acquired the Eco ICT Mark established by the ICT Ecology Guidelines Council as part of our endeavor to further environmental conservation and the reduction of environment load.</p>

## Environmental Management

### KDDI Environmental Charter

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KDDI Environmental Charter is composed of two tiers, the Manifesto (Approach to Global Environmental Problems) which is the highest concept, and the Action Guideline for defining the direction of concrete initiatives.

#### Manifesto

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KDDI Group recognizes the importance of fulfilling its duty as a responsible global corporate citizen to conserve and protect the Earth's irreplaceable environment so that it can be inherited by future generations. We are committed to pursuing our business in eco-conscious ways, through programs of activities that span the entire company.

#### Action guideline

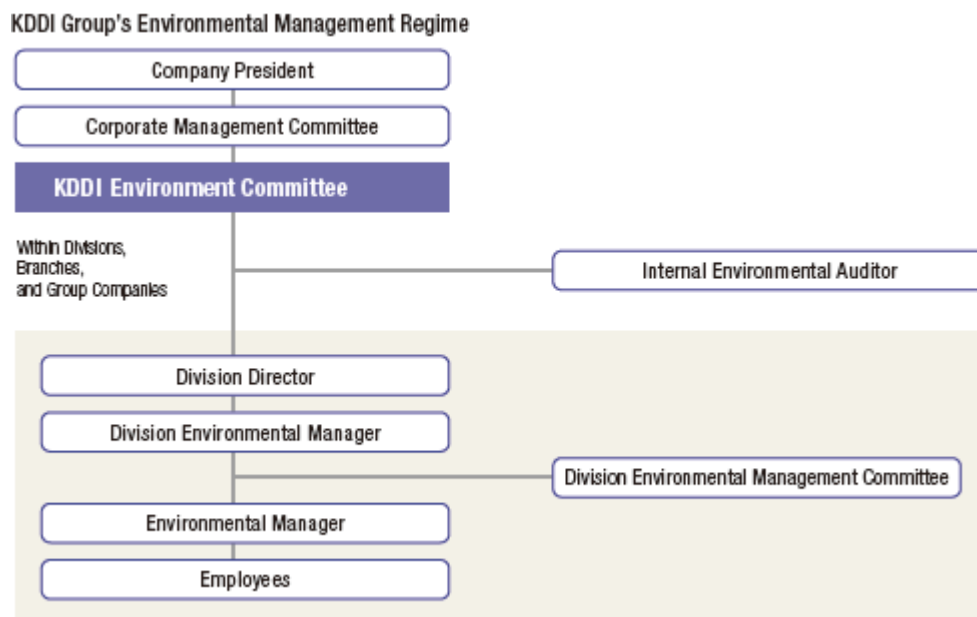
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1. We will strive to evaluate the quantitative impact of our activities as a company on the global environment, implement effective environmental protection programs and continuously improve these programs. Specifically, we will:
  - (1) Develop and operate environmental management systems necessary to make continuous improvements in such environmental fields as energy conservation, resource conservation and waste reduction.
  - (2) Comply with environmental laws, ordinances and other regulations and requirements. In particular, we will promote measures to reduce our electricity consumption from the perspective of preventing global warming.
  - (3) Promote communication through the appropriate disclosure of information.
2. We will strive to develop and offer services that reduce environmental impact through the use of next-generation information technologies.
3. We will contribute to the development of a recycling-oriented society by promoting measures to mitigate and reduce the environmental impact of activities that necessarily entail mass consumption, such as the supply of mobile handsets.
4. We will promote corporate purchasing policies that favor eco-friendly products and equipment.
5. As a responsible corporate citizen, we will contribute to society and local communities through activities that promote an affluent society that is in harmony with the environment.

## Environmental Management Regime

### KDDI Group's Environmental Management Regime

KDDI Group has formed the KDDI Environment Committee, comprising members from each division, branch, Group company, and related organization. This committee serves as the center for formulating KDDI's environmental management system and promoting efficient environmental preservation activities throughout the Group. KDDI has acquired ISO14001 certification for this management system, which covered KDDI and 21 Group companies as of the end of March 2014 (targeting 187 sites and approximately 48,600 people).



#### KDDI Group ISO14001 Certification Acquisition

As of end of March 2014: KDDI CORPORATION, OKINAWA CELLULAR TELEPHONE COMPANY, KDDI Evolva Inc., KDDI Evolva Okinawa Corporation, KDDI R&D Laboratories Inc., KDDI RESEARCH INSTITUTE INC., KDDI Technology Corporation, KDDI Engineering Corporation, Kokusai Cable Ship Co., Ltd., mediba inc., Japan Telecommunication Engineering Service Co., Ltd., KDDI-Group-Kyosaikai, KDDI Welfare Association, KDDI Health Insurance Union, KDDI Pension Fund, KDDI Web Communications Inc., KDDI Challenged Corporation, Japan Cablenet Limited, KDDI Foundation, TELEHOUSE International Corporation of Europe Ltd., Chubu Telecommunications Co.,Inc., WebMoney Corporation, KDDI MATOMETE OFFICE CORPORATION

#### Internal Environmental Audits

KDDI conducts internal environmental audits once each year. In these audits, each department is provided with a checklist and asked to evaluate itself, and internal environmental auditors perform a second check on the state of conformity with environmental legislation. In addition, these audits verify the functioning of the system for systematic and ongoing improvement of environmental activities.

## Appropriate Processing of PCB

KDDI ensures that transistors, capacitors and other components that previously included high-concentration polychlorinated biphenyls (PCBs) are disposed of properly in accordance with legislation and the Company's internal disposal regulations. We disposed of approximately 10 tons of high-concentration PCBs in FY2013, completing the disposal of high-concentration PCBs that disposal processors can currently accept. In future, we will promote the disposal of equipment containing low-concentration PCBs one after another.

## Environmental e-learning for Employees

In order to deepen understanding with regard to KDDI's environmental initiatives, each year the company periodically institutes e-learning programs targeting all employees. Most recently, we educated employees through programs developed based on the theme of environmental laws and regulations.

**省エネ法ってどうしてできたの?**

先輩、省エネ法って、どうしてできたんですか？

あなたが生まれる前なんだけど、1970年代に原油の供給逼迫と価格高騰が原因で、世界的な経済混乱が2回あったのよ。日本ではオイルショックって言われたの。

親から聞いたことがあります。トイレトペーパーの買い占めが起きたって話ですよ？

そう、その時に今後日本経済が発展するためにはエネルギーの使用効率を改善していくことが必要だって考えられて、「エネルギーの使用の合理化に関する法律」通称「省エネ法」が制定されたの。

よくご存知ですね。先輩生まれてたんですか？

何言ってるのよ。あなた、私をいつだと思ってるの(怒)。さすがにリアルタイムでは知らないわよ。

環境講座 KDDI 環境保全活動 0/10

Environmental e-learning in FY2014

## KDDI's Medium-term Environmental Conservation Plan

### Third Medium-term Environmental Conservation Plan Progress under the "KDDI GREEN PLAN 2012-2016"

The Third Medium-Term Environmental Conservation Plan, which we formulated in FY2012, introduces three priority issues to be achieved by FY2016 – a low carbon society, a recycling-oriented society, and biodiversity – and sets specific targets for each. In addition to already reaching our goal of increasing the number of tribrid base stations [1] to 100 by the end of March 2013, as of the end of March 2014, we had made progress toward all of our goals.

[1] These au mobile phone base stations automatically select from 3 kinds of electric power – power generated by solar panels, power saved in charged storage batteries, and power supplied by power companies – and provide power to base stations in the most efficient way at the time it is used.

#### KDDI GREEN PLAN 2012-2016

Material Issues	Targets
Low-Carbon Society	(1) By FY2016, reduce electric power consumption by 30%, compared with the level if energy-saving measures had not been implemented.
	(2) By FY2016, lower electric power consumption per subscriber by 15%, compared with FY2011.
	(3) By the end of FY2012, increase the number of Tribrid Base Stations to 100.
Recycling-Oriented Society	(1) Achieve zero emissions for retired telecommunications facilities.
	(2) Achieve material recycling ratio of 99.8% or more for used mobile phone handsets.
	(3) Achieve a material recycling ratio for general waste of 90% or more at KDDI-owned buildings and in the headquarters building.
Biodiversity	(1) Pursue activities based on our action guidelines for preservation of biodiversity.

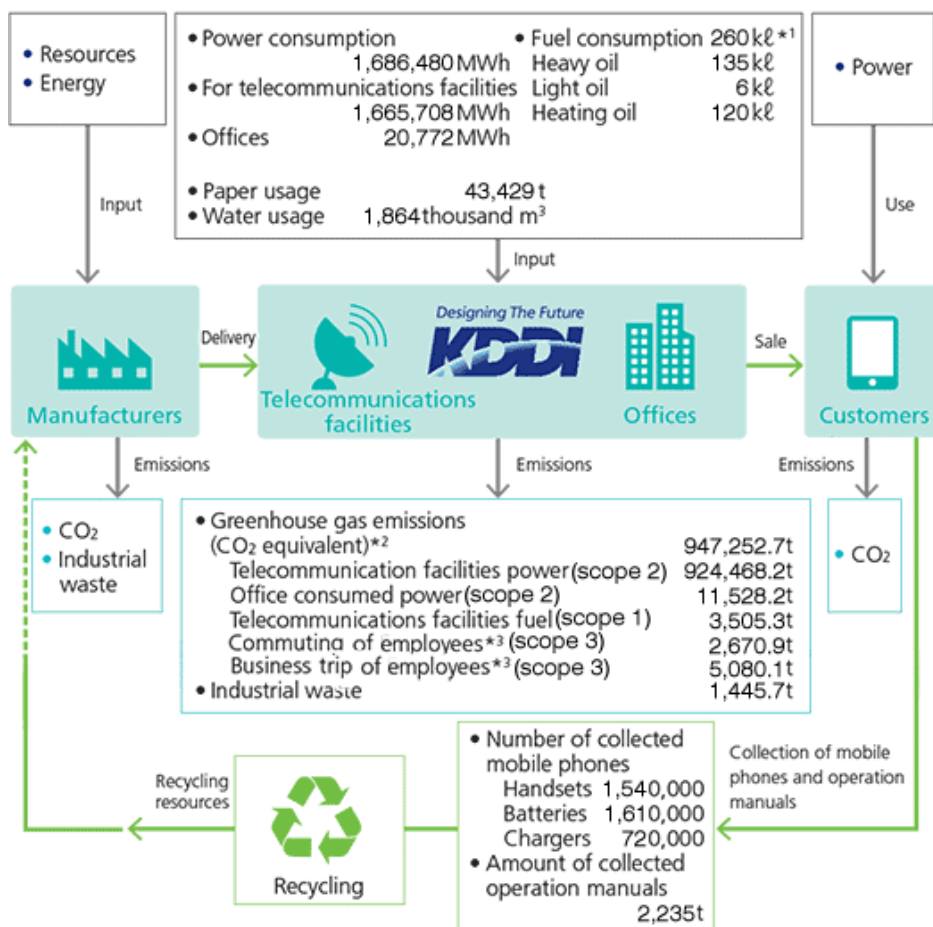
## Environmental Data

### Environmental Impact of Business Activities

Most input energy is electric power for telecommunications facilities. Heavy oil, light oil, heating oil and other fuels are input when test running emergency power generation facilities. Most water usage is generated by everyday business activities in the offices. Greenhouse gas emissions were calculated in three areas, Scope 1, Scope 2 and Scope 3 (commuting by employees, business trips by employees).

### Environmental Impact of FY2013 Business Activities

Coverage: KDDI (KDDI non consolidated)



\*1 Crude oil equivalent. Used for air conditioning of telecommunications facilities and for emergency generators.

\*2 CO<sub>2</sub> emissions are calculated using a conversion coefficient of 0.555 kg-CO<sub>2</sub>/kWh for the power consumption and the emission coefficients for fuel consumption applied to the calculation, reporting, and disclosure systems based on the "Act on Promotion of Global Warming Countermeasures."

\*3 CO<sub>2</sub> emissions are calculated using emission factors indicated in the Ministry of the Environment's "Overview of Basic Conversion Guidelines Related to the Calculation of the Greenhouse Effect through the Supply Chain."

## Environmental Accounting

Noteworthy changes in parameters of environmental accounting during FY2013 were twofold: (1) the expansion of the scope of calculation and the addition of 3 consolidated subsidiaries (KDDI Evolva Inc., Japan Telecommunication Engineering Service Co., Ltd., Chubu Telecommunications Co., Inc.), and (2) the decline in electric power consumption (MWh) compared with the preceding fiscal year.

Coverage: KDDI and 16 major consolidated subsidiaries\*

Period: April 1, 2013 to March 31, 2014

Environmental Protection Costs		Transaction Examples	FY2013 (Millions of Yen)		FY2012 (Millions of Yen)		Change from Previous Year (Millions of Yen)	
			Investment	Cost	Investment	Cost	Investment	Cost
Business area costs	Pollution prevention costs	Pollution prevention costs stipulated by law, costs for proper disposal of PCBs, etc.	0	151	0	141	0	9
	Global environmental protection costs	Power-saving wireless equipment for mobile base stations (Investment amount is calculated proportionally based on the power-saving effect.)	96,858	13,767	7,319	5,174	89,539	8,593
	Resource recycling costs	Reduction of paper resources, processing and disposal of waste products	0	252	0	378	0	△ 126
Upstream/downstream costs		Collection, recycling, and reuse of merchandise and products	0	935	0	636	0	299
Administrative costs		Operation and updating of environmental ISO standards, disclosure of environmental information	0	78	1	96	△ 1	△ 18
R&D costs		R&D of technology, equipment, handsets, products, services, and other items conducive to reducing the environmental burden	0	121	0	130	0	△ 9
Social activity costs		Donations and support for forest conservation activities and to environmental protection groups	0	31	0	16	0	15
Environmental damage restoration costs		Measures for prevention of asbestos spraying, restoration of polluted soil	0	0	0	0	0	0
Total			96,858	15,335	7,320	6,572	89,538	8,763

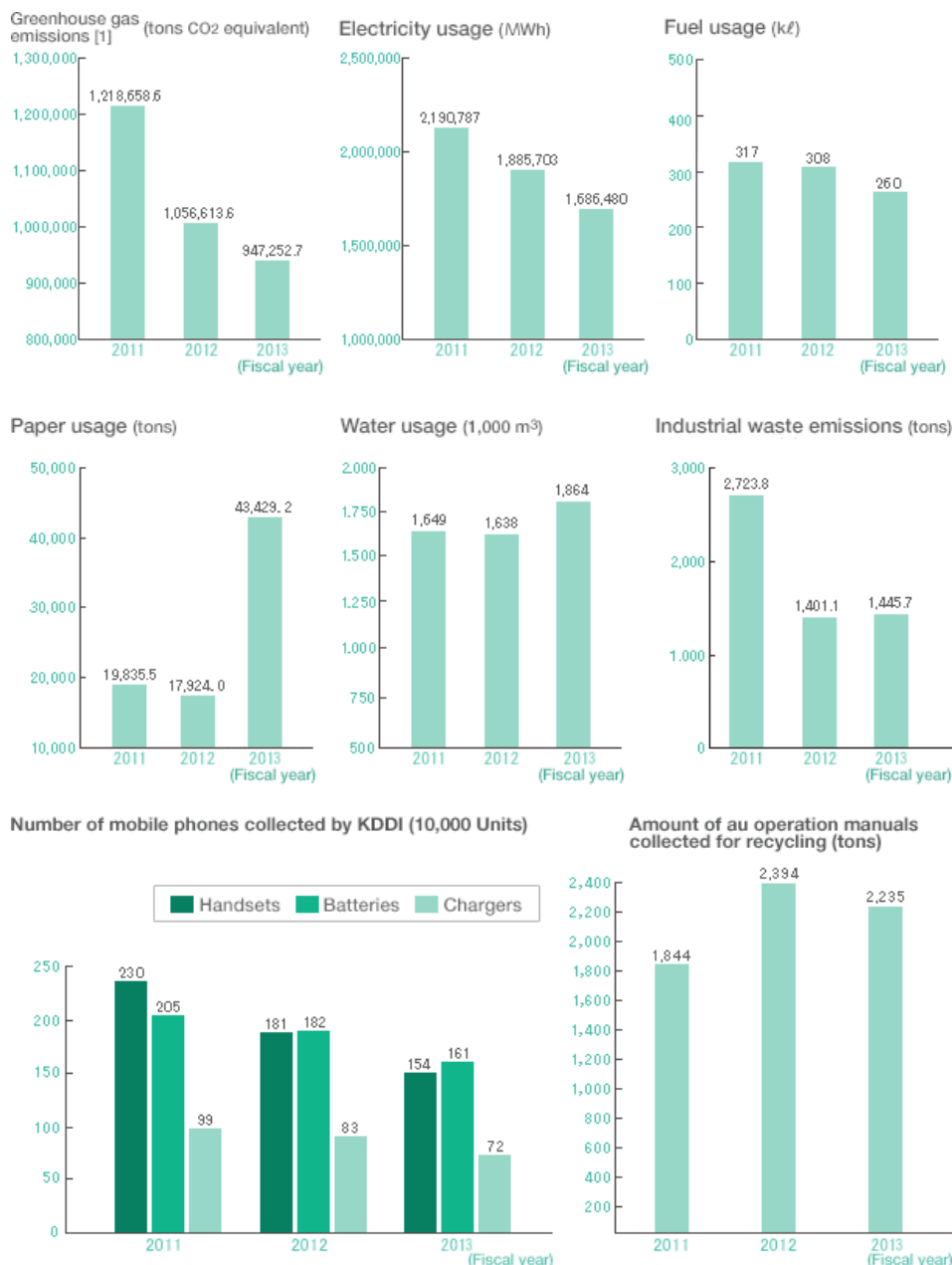
1. Environmental Protection Benefits (Physical)		Indicator Category (Unit)	FY2013	FY2012	Change from Previous Year
(1) Benefits derived from business area	1) Benefits related to resources invested in business activities	Power consumption (MWh)	1,889,604	2,038,462	△ 148,858
		Paper usage (t)	43,691	17,991	25,700
		Paper reduced by Bill on WEB (t)	3,481	3,339	142
	2) Benefits related to environmental burden and waste products discharged from business activities	Greenhouse gas emissions (t-CO <sub>2</sub> )	1,070,006	1,035,576	34,430
Industrial waste emissions related to telecommunications facilities and buildings (t)		3,388	2,041	1,347	
(2) Benefits derived from upstream/downstream costs	Benefits related to goods and services produced by business activities	Number of used mobile phones and other devices collected (10,000 units)	387	446	△ 59

2. Economic Benefits of Environmental Protection Measures (Yen)		FY2013 (Millions of yen)	FY2012 (Millions of yen)	Change from Previous Year
Revenues	Revenues from sales through disposal of telecommunications facilities and buildings	631	502	129
Costs reductions	Reduction in energy costs by adopting the use of low-pollution vehicles	13	12	1
	Reduction in costs of new purchases by reusing disposed of telecommunications facilities	3,200	2,136	1,065
Total		3,845	2,650	1,195

\* KDDI Web Communications Inc., mediba Inc., JAPAN CABLENET LIMITED (JCN), KDDI R&D Laboratories Inc., KDDI Technology Corporation (KTEC), KDDI Research Institute, Inc. KDDI Engineering Corporation, KDDI Evolva Okinawa Corporation, KDDI Challenged Corporation, TELEHOUSE International Corp. of Europe Ltd. (London), WebMoney Corporation, KDDI MATOMETE OFFICE CORPORATION, OKINAWA CELLULAR TELEPHONE COMPANY, KDDI Evolva Inc., Japan Telecommunication Engineering Service Co., Ltd., Chubu Telecommunications Co., Inc.

### Environmental Data

Coverage: KDDI (non consolidated)



\* Regarding calculation of CO2 emissions quantity, a conversion factor of 0.555kg - CO2/kWh is used for power consumption quantity and an emissions factor applicable in the calculation/reporting/announcing system for greenhouse gas based on the “Act on Promotion of Gloval Warming Countermeasures” (Global Warming Act) is used for fuel consumption quantity.



## Low-Carbon Society

### Green of ICT

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#### LCA Initiatives

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To quantify and disclose environmental impact, KDDI periodically conducts life-cycle assessments (LCA) of its products and services to determine the amount of CO<sub>2</sub> generated at each stage of operations from manufacturing and use to disposal or recycling [1]. In FY2008 and FY2012 we conducted LCA on “au HIKARI” and “au.” KDDI plans to continue its efforts to determine and disclose the environmental impact of its products and services as part of its initiatives toward achieving a low-carbon society.

[1] Environmental impact at the disposal and recycling stage includes environmental impact at the manufacturing stage.

\* Calculated by KDDI Research Institute, Inc.

#### Promoting Green Procurement

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KDDI formulated “KDDI Green Procurement Guidelines” to promote purchasing of more environment-friendly products, and since April 2010 we have procured business equipment (communications devices, air conditioning systems, power supply facilities, etc.) with high energy-saving performance. The Guidelines set standards for 29 kinds of equipment, of which the standards for 10 kinds of equipment are based on guidelines specified by the ICT Ecology Guideline Council, while those for the remaining 19 are based on KDDI's own standards set with reference to public standards in Japan and abroad (Top Runner Standards, ATIS [USA], CoC [Europe], etc.).

[□ ICT Ecology Guideline Council](#)

[📄 KDDI Green Procurement Guidelines \(245KB\) \(Japanese\)](#)

#### Portable Batteries

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In FY2013, KDDI introduced and utilizes portable batteries with reduced environmental impact at five maintenance bases throughout Japan as a substitute for the mobile power supply vehicles used in the past to power au mobile phone base stations during electricity outages. In the portable battery trial conducted in FY2012, assuming a power outage of approximately 10 hours per base station and wireless device power consumption of 1kW, whereas a mobile power supply vehicle would consume 8.2 liters per time (equivalent to 21.5kg of CO<sub>2</sub> emissions), a portable battery required 10kWh per time (equivalent to 4.1kg of CO<sub>2</sub> emissions). Given this 17.4kg difference in CO<sub>2</sub> emissions, we expect an approximate 80% reduction in emissions compared with mobile power supply vehicles. KDDI plans to expand the number of portable batteries introduced in readiness for the future increase in base stations and to continue to work toward reduction in CO<sub>2</sub> emissions.



Portable Batteries

## Using Natural Energy

In order to actualize even better energy conservation and CO<sub>2</sub> emissions cuts at KDDI, a portion of the electric power used at large scale communications stations like the Yamaguchi Technical Service Center, Oyama Network Center No. 2 and Tokyo Technical Center, and almost all electrical power at seven mobile telephone base stations including Hokkaido and Aomori come from natural energy sources such as solar power.



Large scale communications station using natural energy

We have been making progress in introducing renewable energy, establishing 100 tribrid base stations (base stations utilizing tribrid electric power control technology to efficiently supply three kinds of electric power – ordinary commercial power, power generated by solar panels, and midnight power saved in storage batteries – according to the time of day and changes in the weather) throughout Japan.

## Renewable Energy

KDDI launched its solar power generation business on November 18, 2013, with the aim of contributing to reduction of CO<sub>2</sub> emissions. We constructed solar power generation facilities on some idle land owned by KDDI in three locations around the country, and we sell the power generated to electric power companies based on the Feed-in Tariff Scheme for Renewable Energy. Total power generation (total power sales) in FY2013 amounted to 3,034MWh.

Location of solar power generation facilities	Start of operation	Site area	Generating capacity	Estimated annual power output
KDDI Oyama Network Center (Oyama, Tochigi Prefecture)	February 26, 2014	Approx. 41,000m <sup>2</sup>	Approx. 3,500kW	Approx. 4,000MWh
Adjacent to KDDI Yamata Transmitting Station (Furukawa, Ibaraki Prefecture)	January 24, 2014	Approx. 57,000m <sup>2</sup>	Approx. 3,300kW	Approx. 4,500MWh
Former site of Kitaura Receiving Station (Namegata, Ibaraki Prefecture)	November 18, 2013	Approx. 78,000m <sup>2</sup>	Approx. 2,000kW	Approx. 2,600MWh

## Road Heating that Uses Waste Heat

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The Sapporo Technical Center in the KDDI Hokkaido Building is contributing to the reduction of CO<sub>2</sub> through road heating that uses waste heat. Road heating is equipment that raises the heat of the ground to prevent the accumulation of snow and icing on roads and sidewalks. The road heating for the Hokkaido Building melts fallen snow by circulating hot water through pipes laid under concrete. Usually road heating uses boiler facilities run on kerosene and gas to heat the circulating water, but the Hokkaido Building system recycles heat generated in machinery areas to heat the cycling water, dramatically cutting CO<sub>2</sub> generation.



Road heating facilities

## Conference on Ecology Guidelines for the ICT Field

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KDDI is participating in the ecology guideline proposal process as a member of the “Conference on Ecology Guidelines for the ICT Field” [2], which was launched in June 2009, and is striving towards the popularization and promotion of energy conservation devices in the communications field. Also, KDDI has acquired the Eco ICT Mark systemized by these guidelines and worked towards the enhancement of activities for environmental awareness and environmental burden reduction.

[2] A conference designed to establish an energy conservation index to be referred to when procuring ICT devices and data centers. Organized by the Telecommunications Carriers Association, Telecom Services Association, Japan Internet Providers Association, Communications and Information Network Association of Japan, and the ASP/SaaS Industry Consortium.

▶ [Eco ICT Mark](#)

## Reducing Power Consumption in Base Stations and Undertaking Disaster Measure Initiatives

The dense blanket of mobile phone base stations covering Japan accounts for 60% of the total energy consumed by KDDI, and reducing the power that base stations consume is a topmost priority. Furthermore, 77% of the base stations that ceased to operate in the aftermath of the Great East Japan Earthquake that struck in March 2011 (in six Tohoku prefectures, as of March 12, 2011) did so because of power outages. Clearly, disaster preparedness measures that address power outages are a pressing topic.

In regard to these issues, KDDI has promoted initiatives combining reduction of environmental impact and disaster preparedness measures by increasing the number of tribrid base stations and extending the life of base station batteries to 24 hours.

Tribrid base stations are base stations that employ tribrid power control technology to determine which of three types of power to use depending on the time of day and changes in the weather. Tribrid power control involves the use of technology to efficiently control the source of electric power by the hour, combining typical commercial electric power with generation from solar panels and charging batteries with nighttime power. Compared with base stations that only use conventional electric power, tribrid base stations have been proved to reduce CO<sub>2</sub> emissions by as much as 30% a year. As of March 31, 2014, 100 tribrid base stations were installed throughout Japan.

Furthermore, serving as backup in case power is interrupted, KDDI has installed batteries with life extended to 24 hours, focusing on prefectural and municipal government offices and train stations serving more than 100,000 passengers per day. As of March 31, 2014, extended life batteries have been installed at 2,200 base stations throughout Japan.



Tribrid Base Station

A video about the advancement of tribrid base stations is available for viewing.

R&D related to adaptive utilization technology for limited network resources in the event of disaster

<R&D of Highly-Efficient Disaster-Adaptive Communication Facility Operation Technology>

Together with “Research and development related to variable-capacity optical network control systems” and “Research and development of obstruction estimation in times of disaster and restoration plan analysis and calculation technology,” the “Study on advancement of tribrid base stations” (KDDI project name) forms part of the “Research and development of management and control technology for disaster-proof networks guaranteeing communications even during large-scale disasters,” sponsored by the FY2011 supplementary budget of the Ministry of Internal Affairs and Communications.

[Click here for movie](#)

## Green by ICT

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### **Provision of Remote Access Service to Support Work Style Innovation**

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KDDI provides various services in support of work style innovation. Compatible with PCs, tablets, smartphones and other multi-devices, Google Apps for Business™, a cloud-based groupware service, allows use of web-based mail, calendars and documents, while Office 365 with KDDI enables browsing and editing of Microsoft Office documents from outside the office or home, similar to a PC. We also offer the KDDI GoToMyPC service which, for a monthly fee, provides a remote access environment enabling easy, high-speed and secure access to company PCs from anywhere at any time, without the need for installation of any equipment. In addition, Office Keitai Pack materializes transmission/reception by fixed line number on a mobile phone or smartphone, no longer keeping you bound to your desk, and supporting reform of office work styles by eliminating conveyance of phone messages and communication loss within the company and supporting an ICT-based teleworking environment.

Through the provision of these services, KDDI supports reform of corporate customers' work styles and contributes to improved business efficiency. We will continue to contribute to reducing society's impact on the environment by curtailing CO2 emissions arising from employee transfers and promoting paperless operations.

## Recycling-Oriented Society

### Green of ICT

#### Reuse and Recycling of Telecommunications Facilities

KDDI promotes reuse activities that regenerate and effectively employ retired telecommunication facilities. We also use material recycling to effectively employ equipment, components and materials that have become unnecessary. Owing to the migration of au mobile phones to a new 800MHz frequency, following on from the previous year, in FY2013 we retired base stations using the former 800MHz band, and when retiring this equipment, we employed material recycling to make effective use of resources. This work will be completed in FY2014.



Former 800MHz frequency base station storage battery



Former 800MHz frequency base station power source

### Green by ICT

#### Paper Reduction and Recycling

Operation manuals for au mobile phones were previously quite thick, as they needed to explain a host of services and functions. However, we have begun to make manuals slimmer with the introduction of an operation manual app for smartphones. We are also making packaging on au mobile phones more compact.



From left, successive operation manuals with the most recent on the far right. For details, visit the website below.

[Environmental conservation activities \(Japanese\)](#)

## Green Road Project

### Promoting Recycling of Mobile Phones

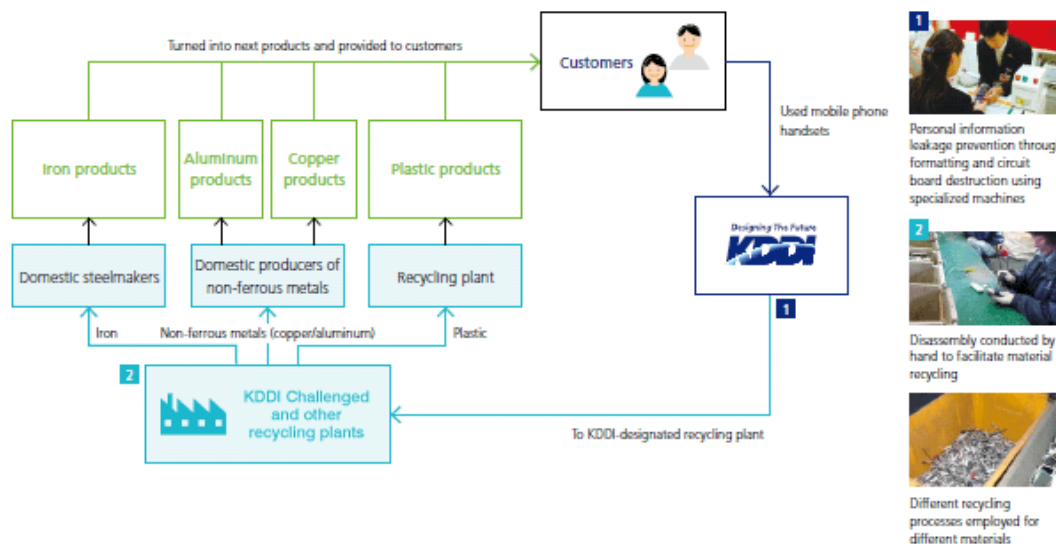
**DATA** Recycling ratio in 2013

**99.8%**

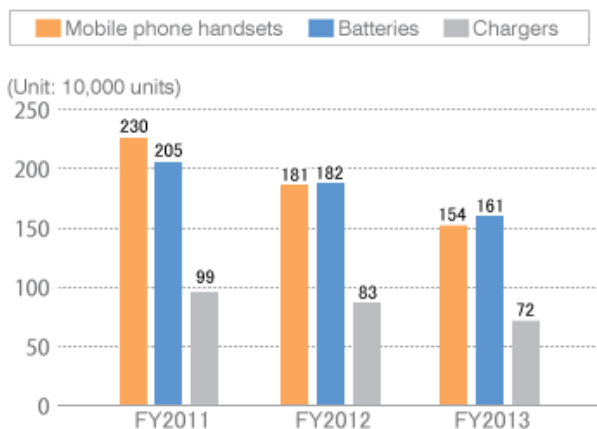
Used mobile phone handsets that have been collected from customers at au shops are manually disassembled, separating out substrates, displays, cameras, plastics, screws, iron, antennas, motors, speakers and other items. Gold, silver, copper, palladium and other resources are extracted from the substrates, while screws and antennas are recycled into steel products and plastics are recycled into plastic products.

When a machine is used to disassemble a mobile phone, plastics are burned up in the incineration process and so cannot be used as a recycled resource. KDDI performs all disassembly manually to prevent recyclable resources from being wasted.

#### Basic Flow for Recycling of Mobile Phones



#### Number of mobile phone handsets and accessories recovered by KDDI



☐ [Mobile Phone Recycling Initiatives \(Japanese\)](#)

## Recycling Operation Manuals and Pamphlets (Environment-Friendly Recycled Paper)

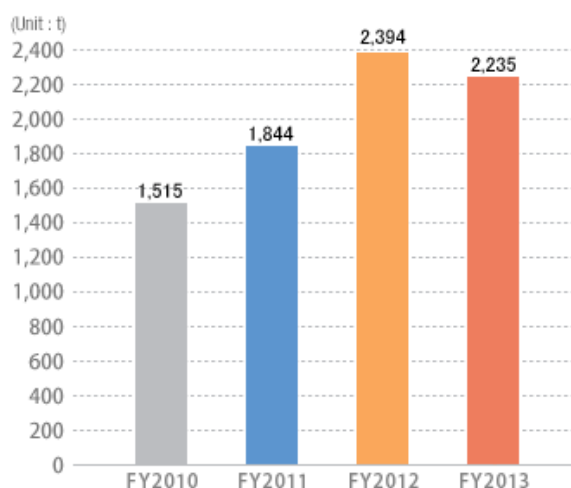
Throughout Japan, au shops recover for recycling the operation manuals, pamphlets and leaflets that are bundled together with mobile phones, as well as the individual boxes in which handsets are packaged. This effort enables us to convert item that were previously discarded as household waste into 100% “environment-friendly recycled paper.” We work to create an environment resource cycle for used paper under the keywords “recover, recycle and reuse.” KDDI uses the resulting “environment-friendly recycled paper” in envelopes for internal communications and various pamphlets.



Logo for KDDI Environment-Friendly Recycled Paper



Record on recovering au operation manuals for recycling



□ Detailed Operation Manual Recycling Activities (Japanese)

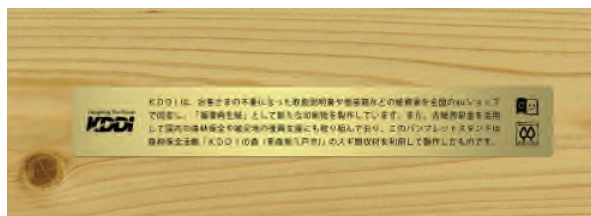


**<TOPICS> KDDI was the first telecommunications carrier in Japan to acquire the “Kizukai-Undo (Wood Products Utilization Campaign) Logo,” promoted by the Forestry Agency, for our catalog stand made from thinned materials.**

KDDI supports reconstruction in areas affected by the Great East Japan Earthquake through an operation manual recycling activities. As part of our activities, we built a catalog stand from materials from tree thinning at KDDI au Operation Manual Recycling Forest in Hachinohe, and we were the first telecommunications carrier in Japan to acquire the Kizukai-Undo Logo promoted by the Forestry Agency for products made from only materials from Japan.

The catalog stand was installed in KDDI Office Building as well as in the Tohoku Regional Office and KDDI Designing Studio.

We will continue to publicize our activities widely among our stakeholders and support environment-friendly reconstruction in areas affected by the Great East Japan Earthquake through our operation manual recycling activities.



## Biodiversity

### KDDI Action Guidelines on the Preservation of Biodiversity

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We have formulated the KDDI Guidelines on the Preservation of Biodiversity. In line with these principles, we take opportunities to preserve biodiversity in a host of ways.

■ **Preserving Diversity in Business Activities**

When formulating business plans, we take into consideration the impact on the related ecosystems and local community.

■ **Collaboration and Cooperation with Related Organizations**

We strengthen collaboration and cooperation with administrative authorities, NPOs and other organizations, and undertake CSR activities using ICT.

■ **Promoting Recycling of Resources**

To prevent the depletion of bioresources and minimize degradation of the natural environment, we continuously and proactively engage in recycling of resources.

### Green by ICT

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Acoustic Observation of the Ganges River Dolphin

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▶ [Highlight4 Technology](#)

### Green Road Project

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**DATA** Number of employees participating in environment preservation activities

FY2012: **383** people → FY2013: **949** people

## Expansion of Forest Conservation Areas (Examples)

Location	Main Activities in FY2013
Hokkaido	Undergrowth Clearing Activities at Volunteer Reforestation Forest at Foot of Mt. Tarumae
Hokkaido	Undergrowth Clearing Activities at Volunteer Reforestation Forest in Hills On Shore of Lake Shikotsu
Miyagi	Kajikamura Forest Preservation Activities
Miyagi	Tohoku Region – Kesenuma Fisheries Cooperative Volunteer Activities
Tokyo	Mt. Takao Voluntary Environmental Preservation Activities
Ishikawa	Clean Beach Ishikawa Activities
Ishikawa	Asano River Cleaning Activities
Nagano	KDDI au Manual Recycling Forest – Voluntary Forest Improvement Activities
Aichi	Omotehama Coast Cleaning Activities
Kyoto	Tennozan Forest Voluntary Preservation Activities
Tottori	Hino River Cleaning Activities, Tottori Prefecture
Tokushima	Hiwasa Clean Beach Activities
Kagawa	Mt. Onose Environmental Preservation Activities
Ehime	Rito Meguri 2013 – Mikan Day Walking & Beach Cleaning Activities

### Mt. Takao Environmental Preservation Activities

In June, August and December 2013, KDDI held environmental preservation activities at Mt. Takao in Hachioji, Tokyo. In the Kanto region, Mt. Takao was chosen as a long-term site for activities from FY2013. KDDI Group employees and their families took part as volunteers, cooperating with the Takao Green Club, an environmental protection group which mainly operates on Mt. Takao, working up a sweat in cutting and thinning of the cypress forest.



KDDI employees doing thinning work

### OKINAWA CELLULAR TELEPHONE COMPANY Coral Protection Activities

As part of OKINAWA CELLULAR TELEPHONE COMPANY's environmental preservation activities, starting from 2010, for every old mobile phone that is returned ¥35 is donated to the Keitai 35 Recycle Fund. This supports coral reef preservation activities, particularly the au Coral Pond at the coral aquaculture facility Sango Batake in Yomitan, Okinawa. In May 2013, we raised a total of ¥468,090 from the third year of Keitai 35 Recycle activities and donated this to the NPO AquaPlanet. The money will be used for renewal of coral reefs, cultivation of coral larvae, and other activities. It will also help with study workshops about the growth process of coral held by Sango Batake for elementary school students in the prefecture.



Replanting of coral

## Compliance with the Green Purchasing Law

Read about KDDI's compliance with the standards required by the Law Concerning the Promotion of Procurement of Eco-friendly Goods and Services by the State and Other Entities (enacted in 2000; subsequently referred to as "Green Purchasing Law") and the Basic Policy for the Promotion of Procurement of Eco-friendly Goods and Services.

-  [State of Compliance with Green Purchasing Law \(60KB\) \(Japanese\)](#)
-  [List of Compatible Models \(72KB\) \(Japanese\)](#)
-  [Product Line-Up](#)

## Eco ICT Mark



Eco ICT Mark acquired

KDDI acquired the Eco ICT Mark established by the ICT Ecology Guidelines Council [1] as part of our endeavor to further environmental conservation and the reduction of environmental load.


[1] Council founded for the purpose of establishing energy-saving indices to be referenced when procuring ICT devices and data centers. The constituting members are: Telecommunications Carriers Association (TCA), Telecom Services Association (TELESA), Japan Internet Providers Association (JAIPA), Communications and Information Network Association of Japan (CIAJ), and ASP-SAAS Industry Consortium (ASPIC).

### Self-evaluation Check List for CO<sub>2</sub> Emission Reduction Efforts by Telecommunication Operators

Business name: KDDI Corporation

#### <Mandatory fields>

		Evaluation item	If implemented, description of actions taken
Formulation of voluntary environmental action plan, etc.	1	Has the organization formulated a voluntary environmental action plan that describes actions for reducing CO <sub>2</sub> emissions? Has the plan been implemented?	KDDI has formulated a medium-term environmental conservation plan based on the KDDI Environmental Charter, and the plan is being implemented. ▶ <a href="#">KDDI Action Guidelines</a>
	2	Does the voluntary environmental action plan include specific actions for which quantitative goals for CO <sub>2</sub> emission reduction are stated?	The Third Medium-Term Environmental Conservation Plan (KDDI Green Plan 2012-2016) sets the following targets. · 30% reduction in energy use estimated for FY2016 compared with not taking any energy-saving measures · 15% reduction in energy use per subscriber estimated for FY2016 compared with FY2011 · Expansion of tribrid base stations to 100 by March 31, 2012 (Target achieved) ▶ <a href="#">Third Medium-Term Environmental Conservation Plan – KDDI Green Plan 2012-2016 –</a>
	3	Does the organization put efforts into informing and enlightening employees about environmental conservation actions to improve their environmental awareness, as well as publishing the organization's voluntary environmental action plan internally and externally?	· The Medium-Term Environmental Conservation Plan is published inside and outside the company by means of the Sustainability Report (formerly CSR & Annual Report) and the corporate website · KDDI also provides e-learning programs and internal seminars for employees whenever necessary. □ <a href="#">Sustainability Report</a> ▶ <a href="#">Environmental Education</a>

		Evaluation item	If implemented, description of actions taken
Formulation of voluntary environmental action plan, etc.	4	Are the implementation statuses of and the targeted achievements for actions given in the voluntary environmental action plan disclosed to the public?	The attainment statuses of trend targets toward the achievement of the Medium-term Environmental Conservation Plan are published in the Sustainability Report (formerly CSR & Annual Report) and the corporate website. ▶ <a href="#">Environment &lt;Material Issue 3&gt; Initiatives to Conserve the Global Environment</a>
Eco-efforts in procurement	5	Has the organization formulated, with a view to energy-saving, procurement standards for ICT devices and data centers? Does procurement conform to the established standards?	KDDI conducts its procurement activities in accordance with the KDDI Green Procurement Guidelines.  <a href="#">Formulation of KDDI Green Procurement Guidelines (245KB) (Japanese)</a>
	6	Does the organization procure office supplies and other goods as well as logistics service in an energy-saving manner (Green purchasing, etc.)?	KDDI promotes green purchasing under the KDDI CSR Procurement Policy. ▶ <a href="#">Working with Business Partners</a>
Promotional system for eco-efforts	7	Is there an assigned group or personnel in charge of CO <sub>2</sub> emission reduction actions?	The CSR & Environment Management Department is established as the internal organization responsible for CO <sub>2</sub> emission reduction efforts.
	8	Does the organization have a system for appropriately monitoring and checking the status of implementation and the achievement level of targets given in the voluntary environmental action plan as well as for conducting internal audits?	KDDI monitors the status of implementation and the achievement level and conducts inspections and improvements through internal audits, both of which are realized through the ISO environmental management system.

<Optional fields>

		Evaluation item	If implemented, description of actions taken
Other eco-efforts	9	Does the organization undertake eco-friendly actions beside energy-saving efforts?	<p>The promotion of 3R (Reduce, Reuse, Recycle) is also a core KDDI challenge, and the following goals are pursued:</p> <ul style="list-style-type: none"> <li>· Promotion of recycling communications equipment; Improvements in recovering resources</li> <li>· Promotion of recycling used mobile phones; Improvements in recovering resources</li> <li>· Reduction in paper resource use via "Green by ICT" (Bill on WEB, KDDI paperless fax service, slimmed-down au mobile phone manual, compact individual packaging, etc.)</li> <li>· Reduction in office waste and improvements in recovering resources</li> </ul> <p>KDDI is also engaged in support for biodiversity.</p> <ul style="list-style-type: none"> <li>▶ <a href="#">Recycling-Oriented Society</a></li> <li>▶ <a href="#">Low-Carbon Society</a></li> <li>▶ <a href="#">Biodiversity</a></li> </ul>
	10	Does the organization perform activities for environmental conservation in collaboration with the community?	<p>KDDI implements forest conservation activities in which employees and customers work together across the country.</p> <ul style="list-style-type: none"> <li>▶ <a href="#">Environmental Conservation Activities</a></li> </ul>