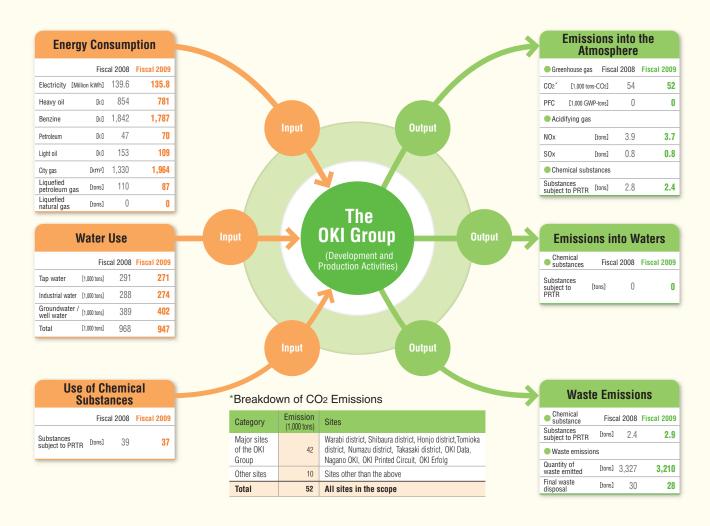
# **Detailed Data**

## **Environmental Impact of Business Activities (Material Balance)**

The OKI Group uses energy, water and chemical substances as "input" to conduct business activities focusing on development and production while discharging substances with environmental impact into the atmosphere and waters, and emitting wastes as "output."



# The Scope of ISO14001 Consolidated Certification

OPT Omiya Site

In order to facilitate information sharing and improve the efficiency of business processes, the environmental activities of all group companies inside and outside Japan have been managed in an integrated way under the same environmental management system at the OKI Group.

### The Scope of ISO14001 Consolidated Certification

(Fiscal 2009)

Atago Site Shibaura Site Warabi Site Takasaki Site Honjo/Tomioka Site Numazu Site OKINET Ecchujima Site ODC Fukushima Site OEF Fukushima Site

OME Fukushima Site
OPC Niigata Site
NOK Nagano Site
OLC Eitai/Isesaki Site
OLC Hokkaido Branch Office Site
OLC Tohoku Branch Office Site
OLC Chubu Branch Office Site
OLC Kansai Branch Office Site

OLC Chugoku Branch Office Site

OLC Shikoku Branch Office Site
OLC Kyushu Branch Office Site
OEG Hikawadai Site
OFN Makuhari Site
OCM Tokorozawa/Hidaka Site
OKI Kansai Techno Research Center Site
Hokkaido Regional Office Site
Tohoku Regional Office Site
Chubu Regional Office Site
Kansai Regional Office Site

Chugoku Regional Office Site Shikoku Regional Office Site Kyushu Regional Office Site ODMT Ayutthaya Site (Thailand) OPNT Chiang Mai Site(Thailand) OME Dong Guan Site (China) OKN Kunshan Site (China) OTTC Changzhou Site (China) OSZ Shenzhen Site (China)

## **Reducing Environmental Impact of Business Activities and Products**

The OKI Group has been active in reducing environmental impact of its business activities and products in order to contribute to environmental conservation.

## Reducing Environmental Impact of Physical Distribution

OKI, as a shipper, has enhanced its efforts to reduce environmental impact of physical distribution in partnership with OKI Logistics (hereinafter called OLC). As a pioneer in reducing CO<sub>2</sub> emissions by adopting modal shift, OLC has accumulated a wide spectrum of transit information and organized it into a database to fully meet the requirements of the Energy Saving Law. In fiscal 2009, the CO<sub>2</sub> emissions reduced by modal shift amounted to 240 tons, a 36% decrease compared to the previous fiscal year, due to a decline in long-distance transport utilizing modal shift. The total volume of CO2 emitted from OLC's transport activities in fiscal 2009 amounted to 3,259 tons, a 22 % increase compared to the previous fiscal year.

#### CO<sub>2</sub> Emissions from Transport Activities 5 000 3,721 3 426 -- 3 441-4,000 3 259 2 682 3,000

## Improvement of Material Recycling Rate (Zero Emission)

The OKI Group has been active in improving its material recycling rate\*1 since 1996. In fiscal 2002, we achieved "zero emission" \*2 at main production sites. In fiscal 2009, the material recycling rate was 99.1%.

- \*1 Material recycling rate: quantity of material-recycled resources / (quantity of materialrecycled resources + quantity of wastes subject to final disposal) x 100
- \*2 Zero emission: defined by the OKI Group as a material recycling rate of 99% or more

### Material Recycling Rates of Main Production Sites



2,000

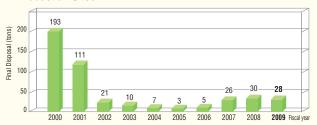
2005 2006 2007 2008

002 1.000

### Amount of Wastes Subject to Final Disposal

The amount of the general and industrial wastes emitted from the OKI Group's main production sites and subject to final disposal was 28 tons in fiscal 2009.

### Amount of Wastes Subject to Final Disposal Emitted from Main **Production Sites**



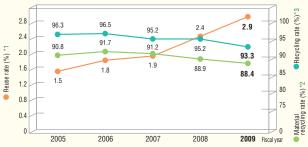
### Recycling of Used Products

The volume of used products collected in fiscal 2009 was 1,571 tons (with an 39% decrease compared to fiscal 2008), with ATMs, printers and PCs comprising a large part of them. The material recycling rate was 93.3% and remained at the almost same level as fiscal 2008.

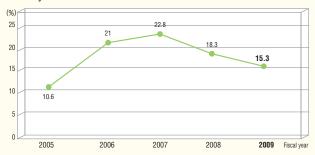
### Recycling of Printer Supplies

OKI Customer Adtech has been active in reusing and recycling printer supplies such as toners and drum cartridges. The recycled product rate to sales volume was 15.3% in fiscal 2009 (a 16% decrease compared to fiscal 2008).

### Recycling of Used Products



### Recycled Product Rates



- \*1 Reuse rate: the ratio of reused parts and materials to collected used products (in mass)

#### **Detailed Data**

# **Environmentally Conscious Products**

The OKI Group has developed various environmentally conscious products utilizing its innovative technologies and offered them to customers.

# "ATM-Recycler G7," a Lightweight Environmentally Friendly Cash Recycling ATM with Low Power Consumption

OKI has developed cash recycling ATMs since the early-eighties. In November 2009, the company announced that it had developed "ATM-Recycler G7," the seventh generation of its cash recycling ATMs for the worldwide market. This new ATM enables banknotes from multiple currencies (with different sizes, designs, and security information) to be handled by a single ATM, and thus help save space at a bank or convenience store. It has also allowed the reduction of the number of components used for sorting banknotes by adopting some newly developed components, and achieved a 45% reduction of the length of the banknote conveyance route. As a result, it is lighter than the conventional ATM models by 30%, and thus allows a reduction of

power consumption for the conveyance process. Furthermore, the ATM has also achieved a reduction of power consumption in stand-by mode by adding a new low power consumption mode to the banknote handling module and the banknote recognition unit. In this way, it has realized a 30% reduction of power consumption.



ATM-Recycler G7

# "IPstage 1000," a Smart Office Telephony Station That is the Industry's Smallest in Class

In November 2009, OKI
Networks announced a launch of
"IPstage 1000," an all-in-one
smart office telephony station for
SOHOs\* that is equipped with a
key telephone system and a
broadband router. The product
allows users to easily build a
business network comprised of a
key telephone system, an Internet
access, a printer and other
devices. The 49-millimeter thick



"IPstage 1000" with "MKT/IP-10DSHF-B" multifunctional IP telephone set

main unit of the system is the industry's smallest in class, of a compact A4 size, and can be installed anywhere in an office. In fact it can be installed vertically, horizontally, or hung on the wall. Since it has achieved a 60% reduction of power consumption, the product helps users save energy at their offices.

Marketed also in Europe, the product conforms with RoHS regulation, and other rules and regulations to control chemical substances.

\* SOHO refers to the category of business, which involves 1 to 10 workers. A typical SOHO operator usually works at his/her home or a small rental office. The category also includes larger companies' small offices in remote places.

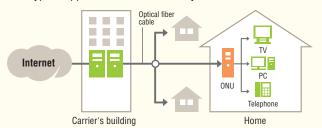
# Optical Network Unit (ONU) That Allows an Energy-Saving Broadband Environment

In fiscal 2009, O F Networks developed a home ONU with significantly low power consumption to be used as part of a GE-PON\* system for low-cost fiber-to-the-home (FTTH) broadband access. In fact, the company achieved a 40% reduction of power consumption by reexamining the product specification, adopting components with low power consumption, reducing the number of components used for the product, and improving electric power efficiency. GE-PON systems have allowed the concurrent provision of an ultrahigh-speed (1 gigabit per second) Internet access, a telephone service, and distribution of high quality images to TVs or PCs. They have been used for many FTTH services. Approximately 17 million households subscribe FTTH services in Japan (as of December 2009).

\* GE-PON: Gigabit Ethernet-Passive Optical Network

As energy-saving efforts in the private sector have attracted considerable attention, ONUs with low power consumption are expected to play an important role in saving electricity in the household sector.

### A typical application of a GE-PON system



# A4 LED Color Printer with Low Power Consumption (0.9W) in Sleep Mode

In January 2010, OKI Data unveiled COREFIDO C610dn and COREFIDO C711dn, two new LED color printers with lowest power consumption (0.9W) in their class in sleep mode. They also meet the standards for the Eco Mark Program, the Green Purchasing Law, and the International Energy Star Program. Furthermore, they deal with thick papers (of 250g/m²), allow automated duplex (double face) printing, and handle long sheets of paper (with a length up to 1,320.8 mm). They also boast the fastest printing speed in their class, 34 pages per minute for color printing, and 36 pages per minute for black & white printing.

The printers of the COREFIDO series with LED printheads are characterized by their highly simple structures featuring OKI's

proprietary technologies such as a direct contact transfer printing method with no complex intermediate transfer processes, a single paper feed path that allows four-color printing with a single paper feeding action, and a highly efficient flat paper path. These features have ensured a five-year warranty for the printers of the series. COREFIDO is a product for the Japanese office market.

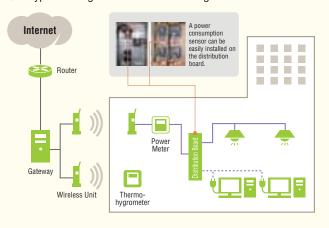


C610dn A4 LED color printer with 0.9W power consumption in sleep

### "Web Sensing" System That Helps Comply with the Revised Energy Conservation Law through the "Visualization" of Environmental Information

In September 2009, OKI Network Integration started offering "Web Sensing," an environmental information collection system, in response to the Revised Energy Conservation Law. The system tracks and collects environmental information (such as temperature, humidity, power consumption, gas and water used, and etc.) about the office, makes such information available from an Internet server, and visualizes it as graphs. This visualization of environmental information helps users cut energy waste (such as that consumed in stand-by mode) through real-time monitoring, allows the issuing of warnings to the system administrator in the event of any deviation from the standard settings, and helps users write environmental reports in compliance with the Revised Energy Conservation Law. It is also notable that the system displays the PMV (Predicted Mean Vote) values, a set of indicators for CO<sub>2</sub> emissions and comfort levels in the forms of animations, and thus contributes to the improvement of environmental awareness of each employee.

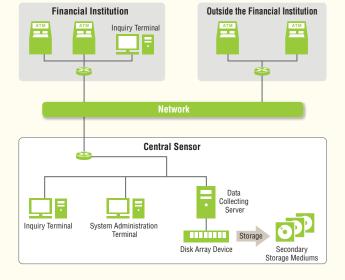
A typical configuration of "Web Sensing"



# Creation of a Paperless Environment for ATMs (ATM Electronic Journal Online Storage System)

In 2007, OKI developed ATM Electronic Journal Online Storage System that collects and manages ATM journal data (data on ATM transactions). Since then, the company has offered the system to a number of financial institutions. With this system, users no longer need to keep paper-based journal data. In this context, the system helps create a paperless environment for ATMs. It also helps reduce information security risks such as leaks, losses and damages of journal data as personal data. The system was introduced to 10 financial institutions by the end of fiscal 2009.

 A typical application of the ATM journal data collection/ management system



#### **Detailed Data**

## **Environmental Accounting**

The OKI Group introduced environmental accounting in fiscal 1999. Since then, we have conducted environmental activities in a highly efficient way to optimize investment effects.

### Environmental Conservation Costs

The OKI Group has adopted a specific procedure for selecting equipment and devices with low environmental impact and has used it when renewing or introducing any infrastructure system. For example we always select products with low environmental impact when selecting new equipment, such as energy-efficient fluorescent lamps, inverter lighting fixtures, and highly-efficient air-conditioning controlling equipment. Capital investment in fiscal 2009 amounted to 198 million yen (compared to 267 million yen in the previous fiscal year) while the amount of costs was 1.563 billion yen (compared to 1.31 billion yen in the previous fiscal year).

Investment / Costs (Unit: million yen)

Catagony		Main Efforts	Investment		Costs	
Category		Main Enorts		2009	2008	2009
Cost in business	Pollution prevention cost	Investment in pollution control facilities, and maintenance and operation costs		8	57	45
	Global environment conservation cost	Investment in energy-saving facilities, and maintenance and operation costs		55	112	92
areas	Resource recycling cost	Investment in facilities for internal treatment of organic waste liquid, waste recycling costs	104	116	318	265
		Total	225	179	487	401
Upstream / downstream cost		Green procurement (chemical substances survey) costs, costs for remodeling systems to collect data on chemical substances contained in products		3	330	280
Administration cost		Costs for obtaining environment management certifications, and maintenance and operation costs		14	284	229
R&D cost		R&D costs for creating energy-saving products		1	205	648
Social activity cost		Costs for planting trees in production sites, costs for activities contributing to local communities		1	3	4
Environmental damage cost		Cost for reserves to respond to environmental damages, insurance cost and surcharge		0	0	1
Other cost		_		0	1	0
Total			267	198	1,310	1,563

### Benefits Related to Environmental Conservation Costs

The economic effects amounted to 280 million yen (compared to 370 million yen in the previous fiscal year) as a result of our efforts to use electricity and air conditioning systems more efficiently although the income from sale of used valuable products decreased.

### Economic Effects

<ul><li>Economic Effects</li></ul>				(Unit: million yen)		
Category		Main Efforts		Effects		
				2009		
Cost	Effect of saving energy and resources	Reduction of electricity, petroleum, gas, packaging materials, etc. used in business activities		159		
reduction effect	Effect of reducing treatment cost	Reduction of waste generated from business activities through recycling	10	-25		
Real income effect		Sale of valuable waste generated from business activities		118		
		Sale of used valuable products		28		
Total						

Environmental Conservation Effects

Environmental Conservation Effects		Impact	Difference compared to	
		2008	2009	previous fiscal year
CO <sub>2</sub> emissions (tons)		54,029	52,432	-1,597
Waste emissions	Final waste disposal (tons)	30	28	-2

Detailed Data on Environmental Accounting

http://www.oki.com/en/eco/

- ① When environmental conservation costs and other costs are consumed for a single activity, only the environment costs are calculated for environmental accounting.
- The depreciation cost of investment is calculated using the fixed installment method for a period of three years. The economic benefits achieved due to these investments is calculated for three years, in line with the depreciation period.
- Personnel costs are calculated by prorating the personnel costs for the total time spent on environmental conservation activities.
   The real income effect represents the value for the current fiscal year.

### Major Environmental Conservation Efforts

### Main Efforts in Each Category in Japan

	Enono in Each Category in Capan		(Unit: 1,000 yen)
Category	Main Efforts	Amount	Site
	Shift to energy-efficient fluorescent lamps	21,000	Honjo district
Ιην	Shift to highly efficient air-conditioning systems	9,780	Tomioka district
Investment	Shift to inverter lighting fixtures	6,600	Takasaki district
nen	Shift to highly efficient air-conditioning systems	6,070	Honjo district
-	Introduction of one-lamp inverter fluorescent light systems	1,437	OKI Data
	Development of ASIC for energy-efficient printers	219,690	OKI Data
	Development of energy-saving SIDM printers	145,739	OKI Data
Costs	Development of process technology for energy-saving	129,493	OKI Data
S	Development of environmentally-friendly products and power conditioners	12,814	OKI Power Tech
	Efficient use of lighting	11,280	Takasaki district
	Shift from central air conditioning to local air conditioning	28,507	Honjo district
	Income from selling valuable waste	6,148	Honjo district
Economic Effects	Income from selling valuable waste	4,991	OKI Erfolg
its mic	Integration and relayout of production lines	4,352	OKI Power Tech
	Separate collection of waste plastic and cost reexamination	1,267	OKI Communication Systems

#### Main Efforts in Each Category in Overseas (Unit: 1,000 yen)

			,,-
Category	Main Efforts	Amount	Site/Company
<u>=</u>	Introduction of an oily water separator	5,510	OKI Electric Industry (Shenzhen)
Investment	Remodeling of production lines for improving efficiency	2,399	OKI Micro Engineering (Dong Guan)
lent	Introduction of a heat circulation system	1,187	OKI Micro Engineering (Dong Guan)
	Air-conditioner maintenance cost	2,428	OKI(UK)
Costs	Waste disposal cots	1,981	OKI(UK)
Ś	Waste disposal cots	1,460	OKI Precision(Thailand)

<sup>\*</sup> Exchange rate: 147.8 yen/£, 2.75 yen/Baht

<sup>(</sup>Accounting Conditions)