Environmental Impact of Business Activities (Material Balance)

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

In fiscal 2013, 31 overseas business locations were added to the application scope.



CO2 emissions in each scope

Region	Category	Fiscal year	Emission (1,000t-CO ₂)
	Soopo 1 (direct omission)	2012	10.3
	Scope I (direct erflission)	2013	11.1
Janan	Soopo 2 (indirect omission)	2012	60.4
Japan	Scope 2 (indirect emission)	2013	65.7
	Coope 2 (other indirect organica)*2	2012	4.5
	Scope 3 (other indirect emission)	2013	6.5
Overseas	Coope 1 (direct amigging)	2012	1.3
	Scope I (direct erflission)	2013	1.5
	Coope Q (indirect orginalion)	2012	16.4
	Scope 2 (indirect ethission)	2013	15.2

*2: from transportation of products and waste

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 Proserve, a company in charge of OKI's logistics operations, has promoted the modal shift since a very early stage to reduce CO₂ emissions during transportation, while creating a data base of transportation information to aggregate the data required by the Energy Saving Law. In fiscal 2013, it achieved a reduction of 612t-CO₂ emission (a 13% increase from the previous fiscal year) through modal shift. Meanwhile, CO₂ emissions from all of the transportation activities were 6,524t-CO₂ (a 46% increase from the previous fiscal year) due to increased production, and other reasons.

Promotion of Material Recycling (Zero Emissions)

The OKI Group appropriately recycles its waste generated at production sites etc., and has been active in improving its material recycling rate*1. In 2002, we achieved "Zero Emissions"*2 at our main production sites, and have been continuing our efforts since then. In fiscal 2013, the material recycling rate was 99.1%.

recycled resources + quantity of wastes subject to final disposal) x 100

*2 Zero Emissions: defined by the OKI Group as a material recycling rate of 99% or more

Amount of Waste Subject to Final Disposal

The waste generated by the OKI Group's major production sites in fiscal 2013 and subject to final disposal, combining their industrial waste and general waste, amounted to 25t due to increased production, and other causes.

CO2 Emissions from Transport Activities







Amount of Waste Subject to Final Disposal Emitted from Main Production Sites



Recycling of Used Products

OKI, OKI Data and OKI Customer Adtech actively utilize the Cross-jurisdictional Waste Treatment Manufacturer Scheme, which was granted by the Ministry of the Environment in June 2006, to promote the recycling of used products. The recycling rate reached 99.71% in fiscal 2013.

*1 Reuse rate: the ratio of reused parts and materials, to collected used products (in mass).
*2 Recycling rate: the ratio of material recycling, thermal recycling and reuse, to collected used products (in mass).





Environmentally Friendly Products and Services

The OKI Group provides its customers with products and services that are environmentally friendly.

MC562dnw/MC362dnw, Wireless LAN-Compatible Multifunctional Printers that Help Reduce Office Energy Consumption

In October 2013, OKI Data launched the MC562dnw and MC362dnw, A4-sized color LED multifunction printers with high energy-saving performances. The products are equipped with Green ASIC, OKI Data's unique integrated circuit, which keeps its power consumption at less than 1.5W during the sleep mode. Other functions include the One-touch Energy Efficient Button for switching to the power-save mode, and the Auto Power-Off Function. They also comply with the latest International ENERGY STAR Program, which has been revised to further tighten the power consumption standards. The excellent performance and durability that can only be accomplished by LED printers is achieved, including the device operating life of 5 years or approximately 420,000 pages of printing (for MC562dnw). These small-sized complex machines are ideal for small offices and stores with limited installation space.

They also feature wireless LAN to enable direct printing from iOS terminals including iPhone and iPad to allow printing from mobile devices.



Wireless LAN compatible MC562dnw

CrosCore, an Office Communication System with a Maximum 30% Power Consumption Reduction through Energy Saving Features

OKI launched the CrosCore Series in April 2013, a private branch exchange that supports communication in small-and medium-sized offices. The devices are equipped with a range of energy-saving features to contribute to our customers' efforts to save energy consumption. Electrical power supply is cut automatically and the devices are switched to the energy-saving mode during the hours in which phones are not used, such as night hours and companies' long vacation period. Other features, to automatically detect when the phones are not connected for a prolonged time and cut their electricity supply, and to activate the energy efficient mode during battery operation, are also available. These energy-saving features can reduce power consumption by up to 30%.

Promotion of Recycling of Used Products



Recycle Flow at OKI Customer Adtech





CrosCore Series

Environmental Accounting

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

Environmental Conservation Costs

When OKI Group makes capital investments to renew or introduce infrastructure, it selects equipment with low environmental impact. Capital investment in fiscal 2013 amounted to 1.332 billion yen (compared to 313 million yen in fiscal 2012), while the amount of costs was 945 million yen (compared to 1.237 billion yen in fiscal 2012).

Investment / Costs

Unit: million yen						
Category		Main Efforta	Investment		Costs	
		Main Eriorts	2012	2013	2012	2013
	Prevention of pollution	Investment in pollution control facilities, and maintenance and operation costs	26	89	64	61
Cost in business Global environment conservation cost		Investment in energy-saving facilities, and maintenance and operation costs	145	1,215	50	253
areas	Resource recycling cost	Investment in facilities for internal treatment of organic waste liquid, waste recycling costs	39	12	263	264
		Total	210	1,316	377	579
Upstream / down:	stream cost	Green procurement (chemical substances survey) costs, costs for remodeling systems to collect data on chemical substances in products	77	11	183	97
Administration co	st	Costs for obtaining environment management certifications, and maintenance and operation costs	25	4	243	220
R&D cost		R&D costs for creating energy-saving products	1	0	430	46
Social activity cost		Costs for planting trees in production sites, costs for activities contributing to local communities	1	0	3	3
Environmental damage cost		Costs for reserves to respond to environmental damages, insurance costs and surcharges	0	0	1	1
Other costs —		0	0	0	0	
Total			313	1,332	1,237	945

Benefits Related to Environmental Conservation Costs

Despite various efforts to reduce energy consumption at each business location, the economic effects decreased to 123 million yen (compared to 291 million yen in fiscal 2012) as the production volume increased.

Economic Effects (Unit					
Onternet		Main Efforte		Effects	
	Category	Main Efforts		2013	
Cost	Effect of saving energy and resources	Reduction of electricity, petroleum, gas, packaging materials, etc. used in business activities	-18	-180	
effect Effect of reducing treatment cost		Reduction of waste generated from business activities through recycling	20	-10	
Real income effect		Sale of valuable waste generated from business activities		310	
		Sale of used valuable products		3	
Total			291	123	

Environmental Conservation Effects en)

Environmental Impact Indices		Impact		Difference	
		2012	2013	to previous fiscal year	
CO2 emissions (tons-CO2)		88,444	93,540	5,096	
Waste Final waste emissions disposal (tons)		441	487	46	

(Accounting Conditions)

① When environmental conservation costs and other costs are used for a single activity, only the environment costs are calculated for environmental accounting. (2) 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 are calculated for three years, in line with the depreciation period.

3 Personnel costs are calculated by prorating the personnel costs for the total time spent on environmental conservation activities.

④ The real income effect represents the value for the current fiscal year.

Major Environmental Conservation Efforts

The following tables show the main efforts with respect to investment, costs and economic effects that are calculated in our environmental accounting.

Main Efforts by OKI Group in Japan			(Unit: 1,000 yen)
Category	Main Efforts	Amount	Site
	Renewal of extra-high-voltage transformers	534,000	Tomioka district
Inve	Demolition costs for aged buildings	253,000	Takasaki district
stm	Renewal of heat source equipment	167,000	Takasaki district
Tent	Renewal of lighting fixtures	107,600	Honjo district
# .	Renewal of air conditioners	62,000	Honjo district
	Waste disposal outsourcing costs	113,204	OKI Printed Circuits
	Environmental equipment operation monitoring costs	73,692	Takasaki district
Co	Waste disposal outsourcing costs	47,415	Tomioka district
sts	Outer wall thermal barrier coating costs	19,960	Numazu district
-	Development costs for environmentally friendly products	14,081	OKI Data
т	Energy saving effect by the introduction of highly-efficient equipment	12,627	Tomioka district
conomic Effects	Energy saving effect by the introduction of invertors to air conditioning refrigerators	1,882	OKI Circuit Technology
	Energy saving effect by the introduction of highly-efficient equipment	1,750	Honjo district
	Energy saving effect by the introduction of invertors to air conditioning refrigerators	1,558	OKI Metaltech
	Enhanced management of power consumption	1.150	OKI Micro Engineering

Main Effor	ts by OK	I Group	Overseas
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			(Onit: 1,000 yerr)
Category	Main Efforts	Amount	Site
Investment	Renewal of air conditioning equipment	30,000	OKI Electric Technology (Kunshan)
	Purchasing/modification costs of production equipment	10,226	Oki Micro Engineering (DG)
	Renewal of lighting equipment	6,000	OKI Electric Technology (Kunshan)
0	Maintenance/operation costs of air conditioning equipment	1,938	OKI Data manufacturing (Thailand)
So	Costs for greening plan	1,636	OKI (UK)
ίζ,	Environmental facility operation/monitoring costs	1,190	OKI Electric Technology (Kunshan)

(Lipit: 1,000 yop)

* Exchange rates : 159.45 yen /€, 3.19 yen / Baht