



Reference Material

Environmental Data Sheet

The Oki group manages its data on environmental impacts to use them for its environmental conservation activities. Using environmental accounting, the aggregation system for chemical substances and other means, we keep track of a variety of environmental impact data from each site and aggregate these data on a company wide basis. Some typical data of fiscal 2003 are shown below.

Detailed Environmental Accounting Data of Oki Electric and Its Group Companies

The tables below present separate environmental accounting data for Oki Electric and its group companies in Japan and overseas.

Environmental Conservation Costs

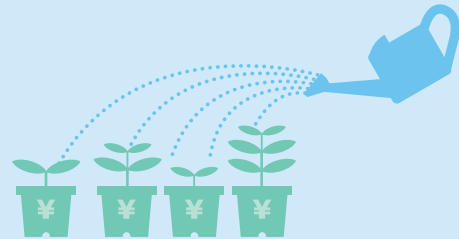
(Unit: thousand yen)

Category	Investment				Costs				
	Oki Electric	Group Companies		(Consolidated) Total	Oki Electric	Group Companies		(Consolidated) Total	
		Japan	Overseas			Japan	Overseas		
Business area cost	·Pollution prevention cost	13,841	90,245	0	104,086	586,694	519,691	13,736	1,120,121
	·Global environmental conservation cost	37,432	99,908	0	137,340	62,488	264,398	95	326,981
	·Resource recycling cost	1,824	26,158	0	27,983	219,787	303,382	70,306	593,475
	Sub-total	53,097	216,311	0	269,408	868,969	1,087,472	84,136	2,040,577
Upstream/downstream cost	20,385	0	0	20,385	30,726	86,945	506		118,177
Administration cost	0	0	0	0	415,285	268,090	9,405		692,780
R&D cost	16,000	109,464	0	125,464	39,491	69,968	3,595		113,054
Social activity cost	0	0	0	0	60	943	324		1,327
Other cost	0	0	0	0	1,082	7,492	0		8,574
Total	89,482	325,775	0	415,257	1,355,613	1,520,910	97,966		2,974,489

Economical Benefit

(Unit: thousand yen)

Category	Oki Electric	Group Companies		(Consolidated) Total	
		Japan	Overseas		
Cost reduction benefit	Benefit from energy and resource conservation	112,543	-217,559	-25,068	-130,084
	Benefit from reduction of processing costs	7,982	-3,411	1,097	5,667
	Sub-total	120,525	-220,970	-23,971	-124,416
Expense saving benefit	Amounts from sales of valuables	43,285	81,161	38,083	162,529
Total	163,810	-139,809	14,112	38,113	



Energy consumption

We use various kinds of energy. The following table shows data by type of energy.

Energy Type	Use
Electric power:	Electric power (kwh) 609,390,540
Oil	Benzine (kℓ) 838
	Kerosine (kℓ) 118
	Diesel oil (kℓ) 65
	Heavy oil (kℓ) 11,670
	Total 12,691
Gas	Liquefied petroleum gas (LPG) (tons) 281
	Liquefied natural gas (LNG) (tons) 0
	Total 281
Water	City gas (km ³) 6,327
	City water (tons) 366,292
	Industrial water (tons) 2,745,656
	Well water (tons) 2,208,935
	Total 5,320,844

Major Environmental Conservation Activities

The following shows the investment, cost and economical effects aggregated in environmental accounting for major activities.

Category	Activity	Amount
Investment	Installation of equipment related to lead-free soldering	118,220
	Outside air conditioner for energy saving	81,000
	Installation of additional acid scrubbers at semiconductor production plants	27,500
	Installation of additional waste water tanks at semiconductor production plants	20,100
	Refurbishing works of air conditioning and other facilities at semiconductor production plants	17,200
	Expansion and reinforcement of waste liquid and waste water equipment at semiconductor production plants	13,556
	Reorganization of the aggregation system for chemical substances contained in products to be shared throughout the company	11,956
	Shift to treatment of organic waste liquid of semiconductor production plants at the premises	9,400
	Installation of measuring equipment related to lead-free soldering	8,244
	Costs	Maintenance and management cost for electricity/boiler facilities
Maintenance and management cost of waste water treatment facilities		264,064
Co-generator maintenance and management cost		204,000
Maintenance and management cost of waste gas treatment facilities		131,840
Amounts paid to contractors for waste processing		77,255
Research and development cost for lead-free soldering (including depreciation cost for test equipment)		76,870
Economical Benefit	Saving of energy through forced intermittent operation of outdoor units of air conditioning equipment	41,527
	Increase of amounts from sales of waste ICs due to increased production	31,174
	Increase of sales of valuable waste from the recovery of precious metals in rhodium plating fluid	27,071
	Saving of electric power through revision of production form	15,705
	Reduction of waste processing cost by starting to treat organic waste liquid on the premises	13,689
	Reduction of purchasing cost for treatment liquid through measures to eliminate causes for unevenness in plating	12,964
	Increase of sales of valuable waste from the recovery of precious metals in gold plating fluid	12,393

CO₂ emissions

The data scope of the aggregations made in the main part of this report covers only a limited number of sites. Here, we present separate data for this limited number of sites and others.

Category	CO ₂ emissions (tons-CO ₂)	Site
Major Production Sites of the Oki Group	242	Hachioji district, Miyazaki Oki Electric Co., Ltd., Miyagi Oki Electric Co., Ltd., Honjo district, Tomioka district, Numazu district, Takasaki district, Shibaaura district
Other sites	61	Other sites within the scope of this report as described on page 2, except for the above
Total	303	All sites within the scope of this report as described on page 2

