



Environmental Data Book 2014

INDEX

Outline of ROHM's Environmental Conservation Activities	2
●Environmental Policy	2
●Environmental Objectives	3
●Targets and Results based on Environmental Policy	4
●Environmental Management System	5
Environment Report	6
●Highlights of Environmental Impact	6
●Changes in Emissions of Environmentally Hazardous Substances	8
●CO ₂ Emissions under the Scope3 Standard	10
●Environmental Accounting	11
●Approaches to Environmentally Friendly Products and Environment Month	13
●Environmental Communications	14
●Environmental Awards	15
Site Reports (Domestic and Overseas Bases)	16

○Period covered by this Report

Fiscal year 2013: April 1, 2013 to March 31, 2014

○Scope of this Report

This Report covers environmental conservation activities implemented by ROHM and 15 ROHM Group Affiliates: 7 domestic affiliates including two LAPIS Semiconductor Group companies and 8 overseas affiliates.

RMT that shut down due to the 2011 Thailand floods is not included in the data aggregation for the period of fiscal 2011 to fiscal 2013.

○Abbreviated names for the Overseas Affiliates

For the purposes of this Report, the names of the Overseas Affiliates are abbreviated as follows:

REPI: ROHM Electronics Philippines, Inc.	(Philippines)
RIST: ROHM Integrated Systems (Thailand) Co.,Ltd.	(Thailand)
RSC: ROHM Semiconductor (China) Co.,Ltd.	(China)
REDA: ROHM Electronics Dalian Co.,Ltd.	(China)
RWEM: ROHM-Wako Electronics (Malaysia) Sdn.Bhd.	(Malaysia)
RMPI: ROHM Mechatech Philippines, Inc.	(Philippines)
RMT: ROHM Mechatech (Thailand) Co.,Ltd.	(Thailand)

Outline of ROHM's Environmental Conservation Activities

Environmental Policy

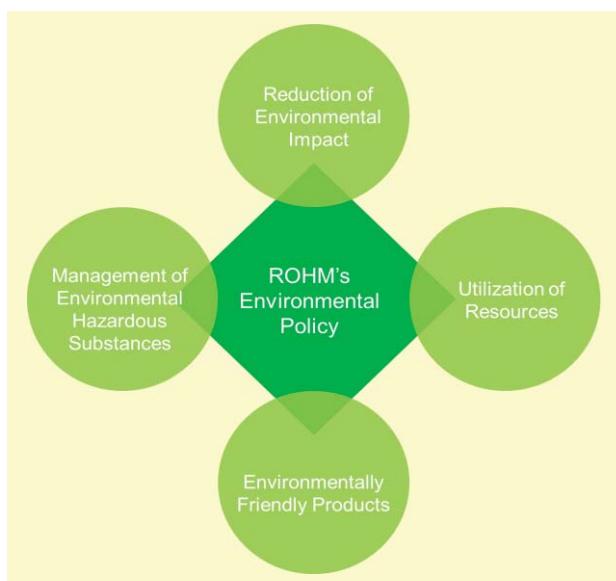
ROHM's Environmental Policy

We will always consider the global environment and contribute to the healthy continuation of humankind as well as to long-term business prosperity

1. Use originality and ingenuity to achieve energy conservation in all corporate activities.
2. Develop eco-friendly products and strive to minimize environmental load throughout the product's life cycle.
3. Prioritize reducing the environmental load when purchasing materials, secondary materials, and products.
4. Comply with domestic and international environmental laws and regulations and regional conventions.
5. Encourage employees to consider the living and global environment and educate relevant individuals.
6. Form a healthy relationship with society by contributing to the global environment and appropriately disclosing environmental information.

ROHM established an Environmental Policy applicable to the entire ROHM Group on October 20, 1997 pursuant to the provisions in the International Environmental Standards ISO 14001. Furthermore, in response to the 2004 revision of ISO 14001, ROHM made a complete revision to the Environmental Policy on April 1, 2006 to provide even more concise, clearer, and more exact descriptions.

ROHM's Approaches toward Global Environmental Conservation



ROHM has been working on a variety of environmental conservation activities centering on the Environmental Policy.

We believe that corporate activities contributing to the environment are to manufacture environmentally friendly products and yet to reduce our own environmental impact in manufacturing them. Particularly for the prevention of global warming, we are active in a range of the reduction of CO₂ and other greenhouse gases emitted from our business operations.

In addition, we will define long-term environmental targets and policy from the perspective of biodiversity, and have approaches to realize sustainable society.

Environmental Objectives

○Response to Legal Requirements

We shall certainly comply with environmental laws and requirements relating to all business activities and voluntarily promote to reduce the environmental impacts.

○Objectives and Targets of Voluntary Activities

1. CO₂ countermeasures in each site

[Policy] Work to stop global warming through overall energy conservation and the reduction of global greenhouse gas emission.

[Objectives] (1) Reduce CO₂ emission by 25% in FY2020 from the actual results of FY2005.

(2) Reduce CO₂ emission (per production unit) by 50% in FY2020 from the actual results of FY1990.

(3) Reduce global greenhouse gas emission (PFC's SF₆, etc) by 50% in FY2020 from the actual results of FY1995.

2. CO₂ countermeasures through value chain

[Policy] The scientific techniques and various kinds of calculation tools including LCA are utilized, and CO₂ reduction activities are promoted.

Development of the environmentally-conscious products in alignment with 'NEXT50' is led, and it contributes to the CO₂ reduction at the time of use.

[Objectives] (1) Reduce CO₂ emission through the value chain by 10% in FY2020 from the actual results of FY2010.

(2) Increase the ratio of environmentally-conscious products that account for in sales profits to 100% by FY2020.

3. Reduction of environmental impact

[Policy] Reduce the amount of materials discharged to the air and water, and strive to preserve the Global environment.

[Objectives] (1) Reduce the amount of handling volume of PRTR substances (per production unit) by 10% in FY2020 from the actual results of FY2010.

(2) Reduce VOC emission by 40% by FY2020 from the actual results of FY2000.

4. Effective use of resources

[Policy] Strive for the effective use of valuable resources and the protection of water resources that are fundamental to environmental biodiversity.

[Objectives] (1) Maintain zero emission in domestic group consolidated and reduce waste generation(per production unit) by 40% by FY2020 from the actual results of FY2000.

(2) Reduce waste generation(per production unit) in overseas group consolidated by 60% by FY2020 from the actual results of FY2000.

(3) Reduce water input volume by 10% in FY2020 from the actual results of FY2009.

(4) Increase the usage ratio of the eco-reel (reduced, compact reel) that comprises the packaging reel to 100% by FY2020.

Outline of ROHM's Environmental Conservation Activities

Targets and Results based on Environmental Policy

The ROHM Group defines targets and approaches based on the environmental policy and objectives to formulate an action plan each year toward the accomplishments of the targets and approaches and promote positive activities.

[Targets and Results in Fiscal Year 2013]
(Coverage: 8 domestic and 7 overseas affiliates on a consolidated basis)

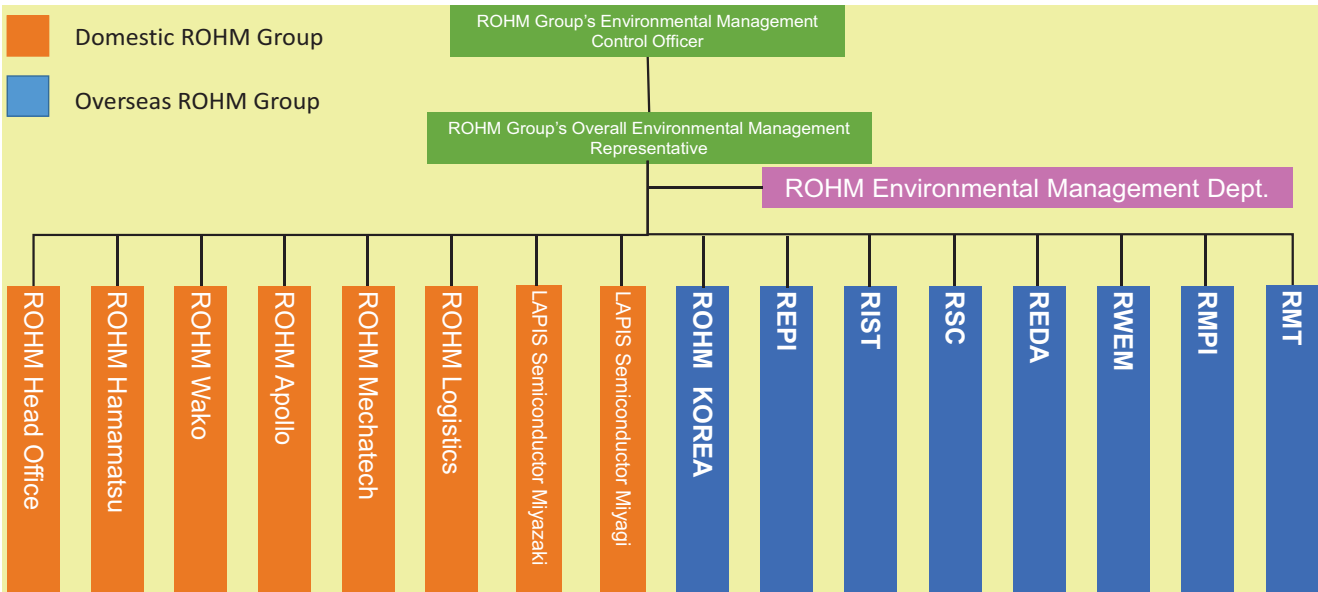
Targets in Fiscal Year 2013	Results in Fiscal Year 2013	Evaluation
[CO₂ reduction measures at bases]		
(1) Reduce CO ₂ emissions by 1% from the 2012 level.	(1) CO ₂ emissions were reduced by 5.5% from the 2012 level.	
(2) Reduce CO ₂ emissions (per unit production) by 1% from the 2012 level.	(2) CO ₂ emissions per unit production were reduced by 10.9% from the 2012 level	☆☆☆
(3) Reduce greenhouse gas (i.e. PFCs, SF ₆) emissions by 1% from the 2012 level.	(3) Greenhouse gas (i.e. PFCs, SF ₆) emissions were reduced by 8.2% from the 2012 level.	
[CO₂ reduction measures through value chains]		
(1) Construct a mechanism for assessing the volume of CO ₂ emissions across the entire value chain that complies with GHG Protocol Scopes 1 and 2.	(1) Constructed a mechanism for assessing the volume of CO ₂ emissions across the entire value chain that complies with GHG Protocol Scopes 1 and 2.	
(2) Consider how to calculate greenhouse gas emissions based on the GHG Protocol Scope 3, and formulate an operational model.	(2) Considered the greenhouse gas calculation based on GHG Protocol Scope 3 and formulated an operational model for the 4 categories.	☆☆
(3) Increase the ratio of eco-friendly products that comprise sales profits to 60%.	(3) Increased the ratio of eco-friendly products that comprise sales profits to 59.2%	
[Reduction of environmental impact]		
(1) Reduce the volume of PRTR substances handled (per production unit) by 1% from the 2012 level.	(1) Reduced the PRTR substances handled per unit by 8.1% from the 2012 level	☆☆☆
(2) Reduce VOC emissions by 1% from the 2012 level.	(2) Decreased VOC emissions by 20.0% from the 2012 level.	
[Effective utilization of resources]		
(1) Maintain zero emissions at domestic consolidation and reduce waste volume (per unit production) by 1% from the 2012 level	(1) Zero emissions were maintained at all domestic companies. Waste emissions per unit was reduced by 15.6% from the 2012 level.	
(2) Reduce the volume of consolidated waste overseas (per unit production) by 1% from the 2012 level.	(2) Waste emissions per unit at overseas companies was reduced by 8.6% from the 2012 level.	
(3) Reduce water consumption by 1% from the 2012 level.	(3) Water consumption was reduced by 9.9% from the 2012 level.	☆☆
(4) Raise the proportion of use of Eco reels (volume- and weight-reduced reels) to that for packaging reels to 40% by the end of 2013.	(4) Raised the proportion of use of Eco reels (volume- and weight-reduced reels) to that for packaging reels to 18.9%.	

Outline of ROHM's Environmental Conservation Activities

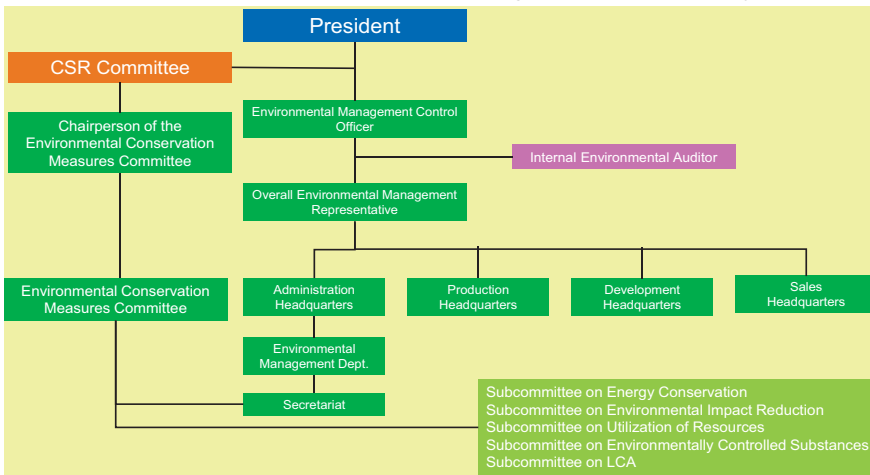
Environmental Management System

ROHM has deployed across the ROHM Group an environmental management system designed to be shared among the Group on the basis of the International Environmental Standard ISO 14001 and all employees have been working on continual environment improvements. Furthermore, the ROHM Group has been implementing constant environmental activities from a global perspective on a consolidated basis.

■ ROHM Group's Environmental Management Promotion System



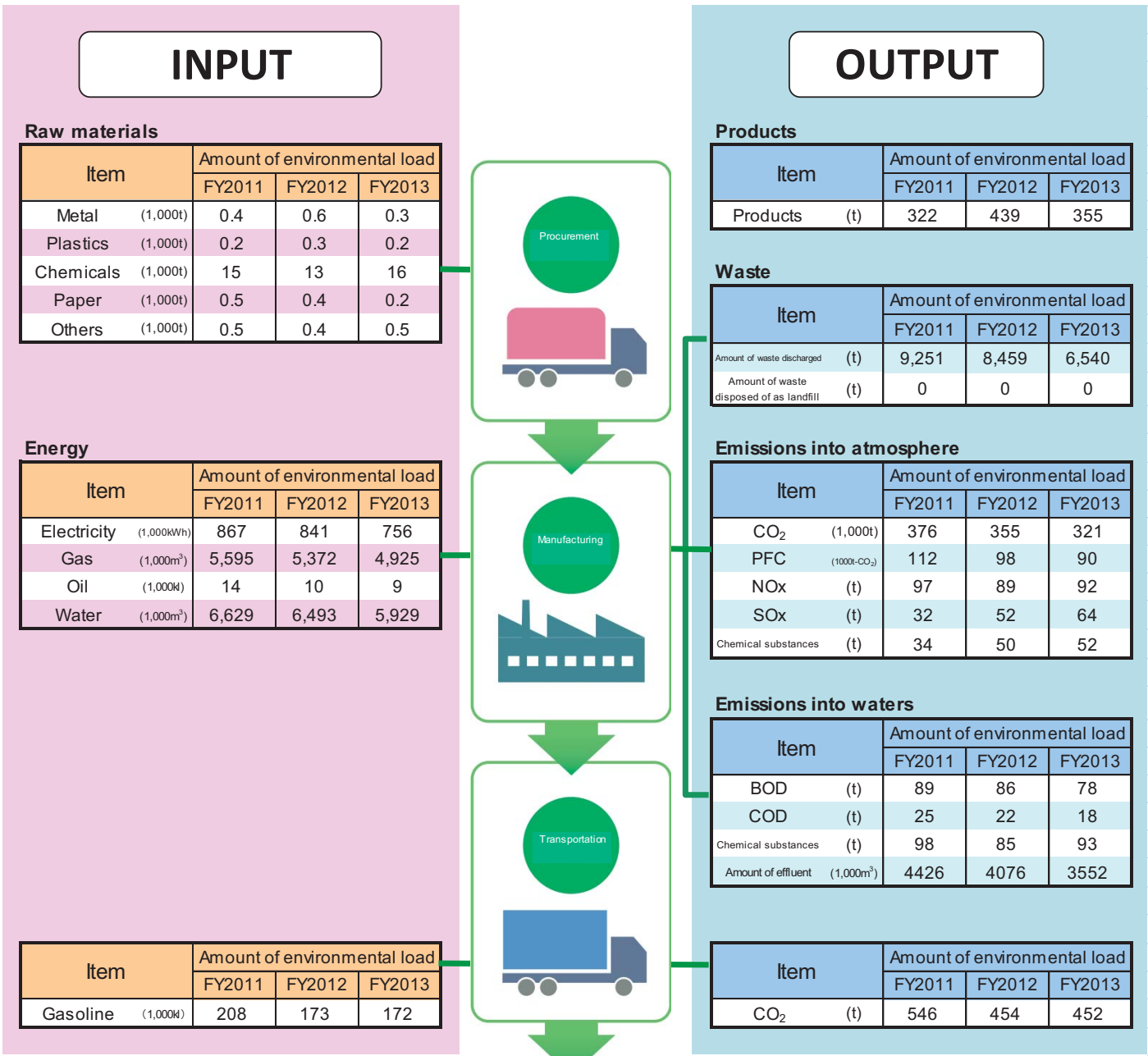
■ ROHM Head Office Environmental Management Promotion System



ROHM started the environmental management promotion system in its Head Office in 1990 mainly to conduct pollution prevention activities, and rebuilt it afterward to a promotion system taking environmental conservation with a view to the global environment as a principle behind its activities. In this rebuilt promotion system, the "Environmental Conservation Measures Committee" that deliberates significant policies and measures relating to the environmental activities, and five Subcommittees that comprise the Committee are playing an important role in the promotion system. The Subcommittees are composed of experts in the relevant field, engineers, and related national qualification holders, and the chairpersons of the Subcommittee serve as members of the Environmental Conservation Measures Committee. The Management Committee and Subcommittee meetings are held on a monthly basis.

Highlights of Environmental Impact

Domestic Bases



Overseas Bases

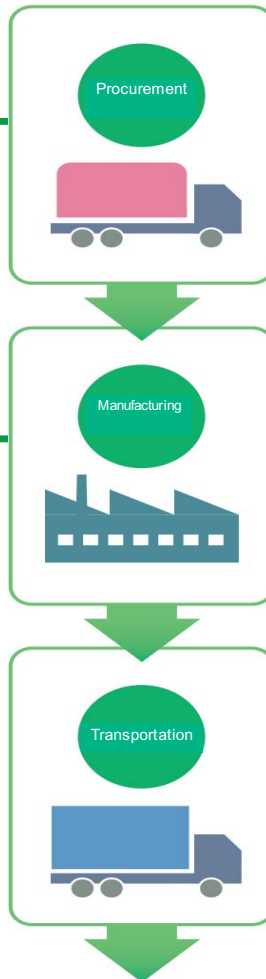
INPUT

Raw materials

Item	Amount of environmental load	Amount of environmental load		
		FY2011	FY2012	FY2013
Metal (1,000t)		3.4	2.8	3.5
Plastics (1,000t)		4.2	2.9	4.1
Chemicals (1,000t)		2.8	2.3	2.8
Paper (1,000t)		1.9	1.5	2.5
Others (1,000t)		0.7	0.4	0.7

Energy

Item	Amount of environmental load	Amount of environmental load		
		FY2011	FY2012	FY2013
Electricity (1,000kWh)		570	568	591
Gas (1,000m ³)		260	161	104
Oil (1,000kl)		16	7	5
Water (1,000m ³)		3,907	3,534	3,604



OUTPUT

Products

Item	Amount of environmental load	Amount of environmental load		
		FY2011	FY2012	FY2013
Products (t)		8,913	9,127	9,504

Waste

Item	Amount of environmental load	Amount of environmental load		
		FY2011	FY2012	FY2013
Amount of waste discharged (t)		6,324	5,349	5,300
Amount of waste disposed of as landfill (t)		799	623	624

Emissions into atmosphere

Item	Amount of environmental load	Amount of environmental load		
		FY2011	FY2012	FY2013
CO ₂ (1,000t)		272	232	237
NO _x (t)		247	* 2	1
SO _x (t)		182	* 0	0
Chemical substances (t)		20	16	15

*Reduced because REPI stopped using the cogeneration system in September 2011, and thereby heavy oil was no longer required to be used.

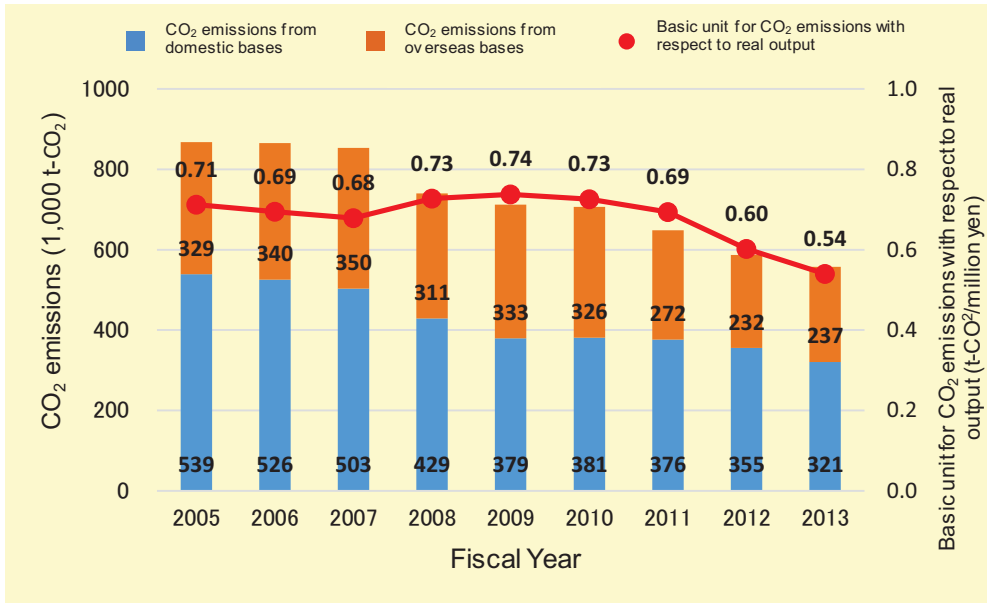
Emissions into waters

Item	Amount of environmental load	Amount of environmental load		
		FY2011	FY2012	FY2013
BOD (t)		12	12	14
COD (t)		61	45	51
Chemical substances (t)		3	1	1
Amount of effluent (1,000m ³)		1216	1,064	1,033

Changes in Emissions of Environmentally Hazardous Substances

Changes in CO₂ Emissions

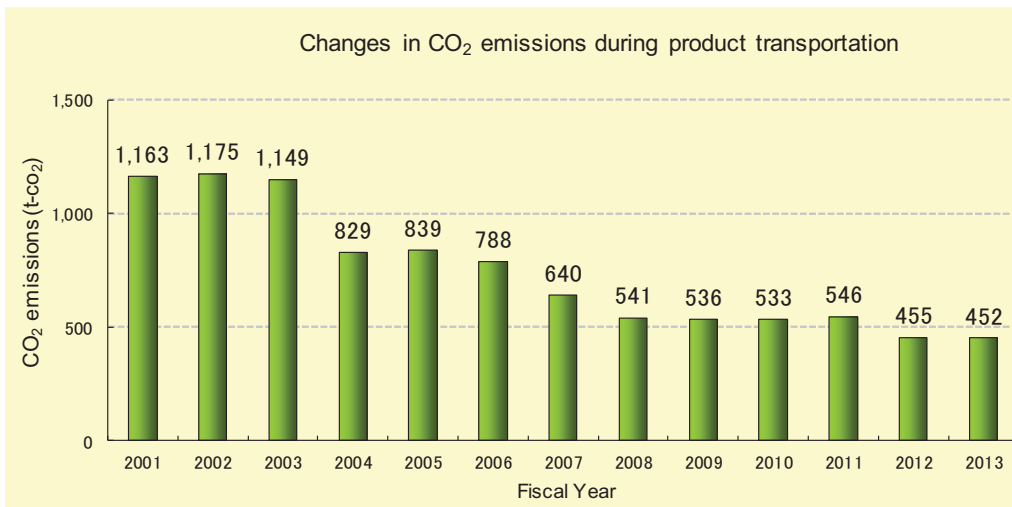
Changes in CO₂ emissions from the ROHM Group



ROHM has been pushing ahead with and boosting the shift of downstream process overseas due to the globalization of production bases. This resulted in the reduction of CO₂ emissions from domestic bases by 36% in fiscal year 2013 compared to fiscal year 2005.

Furthermore, the basic unit for CO₂ emissions with respect to real output reduced by 48% in fiscal year 2013 compared to fiscal year 1995.

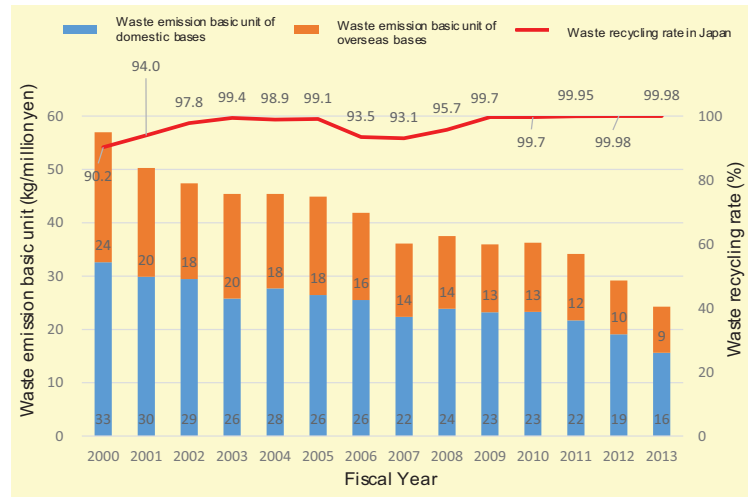
Changes in CO₂ emissions during transportation



Amid growing social concerns about environmental impact reduction in the logistics field, ROHM has been working on the reduction of CO₂ emissions caused by fuel consumption through transportation by road since fiscal year 2004 with measures taken for the transportation of products from production bases, including improvement in loading efficiency and the optimization of delivery frequency by the use of cross-docking. ROHM continued to integrate transport operations and focused on approaches to the reduction of CO₂ emissions, thus achieving the reduction by 16% in fiscal year 2013 compared to fiscal year 2010.

Changes in Emissions of Waste and PFC Gases

■ Waste emission basic unit (domestic and overseas bases) and recycling rate (domestic bases) of the ROHM Group



Regarding measures to reduce the volume of waste, ROHM Group companies optimize the amount of incoming and secondary materials and strive to increase yield as well as thoroughly separate unneeded materials generated to obtain valuable resources.

In addition, the ROHM Group has defined a waste recycling rate of at least 99% as 'zero emissions.' And after reaching this target at all domestic companies in fiscal year 2009, the group continues to strive towards a true 100% recycling rate (99.98% in fiscal year 2013).

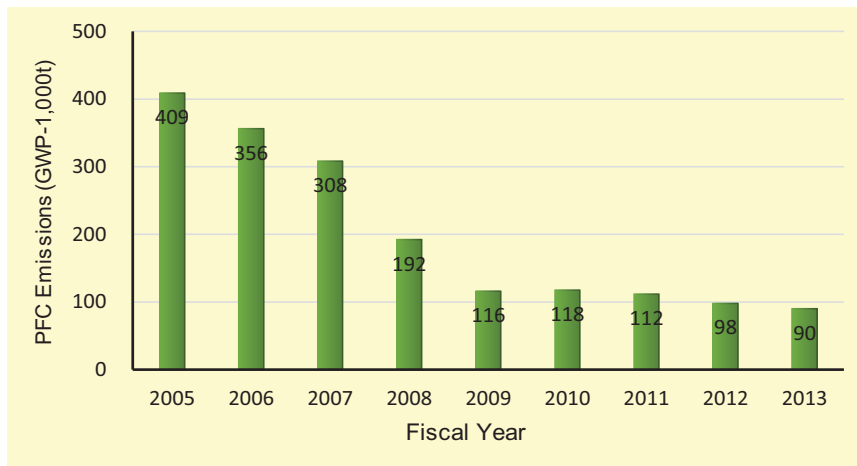
The Group reduced the waste emission basic unit by 52% in fiscal year 2013 compared to fiscal year 2000.

In recognition of its contribution to environmental preservation and reduction in waste production, ROHM was awarded the "Commendation for Contribution to Environmental Conservation in the Organization and Top Runner Category" by the Governor of Kyoto Prefecture in fiscal year 2013.

■ Changes in PFC Gas Emissions

What is PFC gas (Perfluorocarbon gas)?

PFC gas is a material essential for fine processing of semiconductors, especially ICs. This PFC gas will turn to a greenhouse gas that produces greenhouse effect 6,500 times as high as CO₂ when it is released into the atmosphere. The semiconductor industry has determined a target for reduction in the PFC gas emissions and promoted the installation of PFC gas treatment systems used to dissolve PFC gases and eliminate the greenhouse effect.

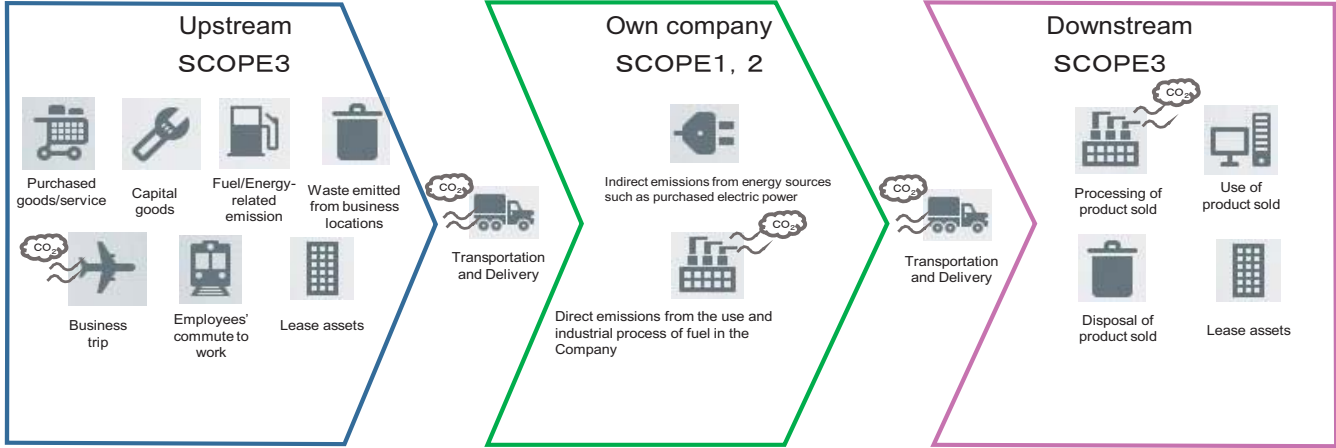


The ROHM Group promoted the installation of PFC gas treatment systems and reduced PFC gas emissions by 70% in fiscal year 2013 compared to fiscal year 1995.

Outline of ROHM's Environmental Conservation Activities

CO₂ Emissions under the Scope3 Standard

Domestic and Overseas Bases



CO₂ emissions from the ROHM Group's business operations in fiscal year 2013

Category of Scope Protocol			CO ₂ Emissions (t-CO ₂)	Outline of Calculation	
SCOPE1 (Direct emissions)			73,408	Direct emissions from facilities in the Company's own business locations	
SCOPE2 (Indirect emissions from energy sources)			791,692	Emissions associated with the production of energy purchased by the Company's business locations	
SCOPE3 (Emissions from any sources other than Scope1 and Scope2, such as Company's supply chains)	Classification	Category	CO ₂ Emissions (t-CO ₂)	Outline of Calculation	
	Upstream	1	Purchased product/service	346,175	Emissions associated with the manufacturing of purchased product (including material and part)
	Upstream	2	Capital goods		
	Upstream	3	Fuel- and energy-related activities not included in Scope1 and Scope 2	0	Emissions associated with the procurement of fuel and energy used in the Company's business locations
	Upstream	4	Transportation and Delivery (Upstream)		
	Upstream	5	Waste emitted from business operations	371,459	Emissions associated with the transportation and treatment of waste generated in the Company's business locations
	Upstream	6	Business trip	1,207	Emissions associated with the business trips of employees
	Upstream	7	Employers' commute to work	1,906	Emissions associated with the movement of employees when they commute to the Company to work.
	Upstream	8	Lease assets (Upstream)	-	Not covered
	Downstream	9	Transportation and Delivery (Downstream)	2,867,319	Emissions associated with the distribution of sold product from the Plant → Logistics base → Consumer
	Downstream	10	Processing of product sold		
	Downstream	11	Use of product sold		
	Downstream	12	Disposal of product sold		
	Downstream	13	Lease assets (Downstream)	-	Not covered
	Downstream	14	Franchising	-	Not covered
Downstream	15	Investment			

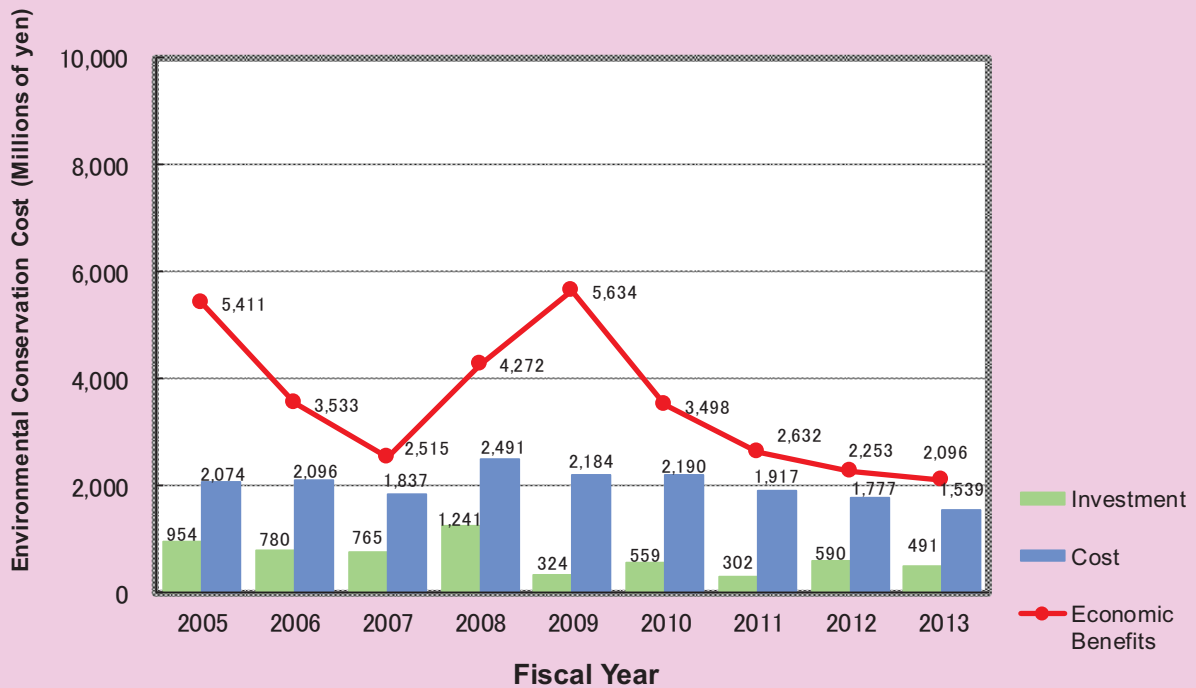
Environmental Accounting

Domestic Bases

(Unit: Millions of yen)

Category of cost under the Guidelines	FY2011			FY2012			FY2013		
	Investment	Cost	Economic Benefits	Investment	Cost	Economic Benefits	Investment	Cost	Economic Benefits
Pollution prevention cost	50	920	-	290	883	-	69	841	-
Global environmental conservation cost	250	132	559	253	141	764	361	188	736
Resource recycling cost	1	367	2,073	1	382	1,490	1	251	1,360
Administration cost	0	495	-	44	368	-	49	255	-
Social activity cost	0	4	-	0	3	-	0	4	-
Environmental remediation cost	0	0	-	0	0	-	0	0	-
Others	0	0	-	0	0	-	0	0	-
Total	302	1,917	2,632	590	1,777	2,253	491	1,539	2,096

Investment and Cost vs. Economic Benefits (Domestic Bases)



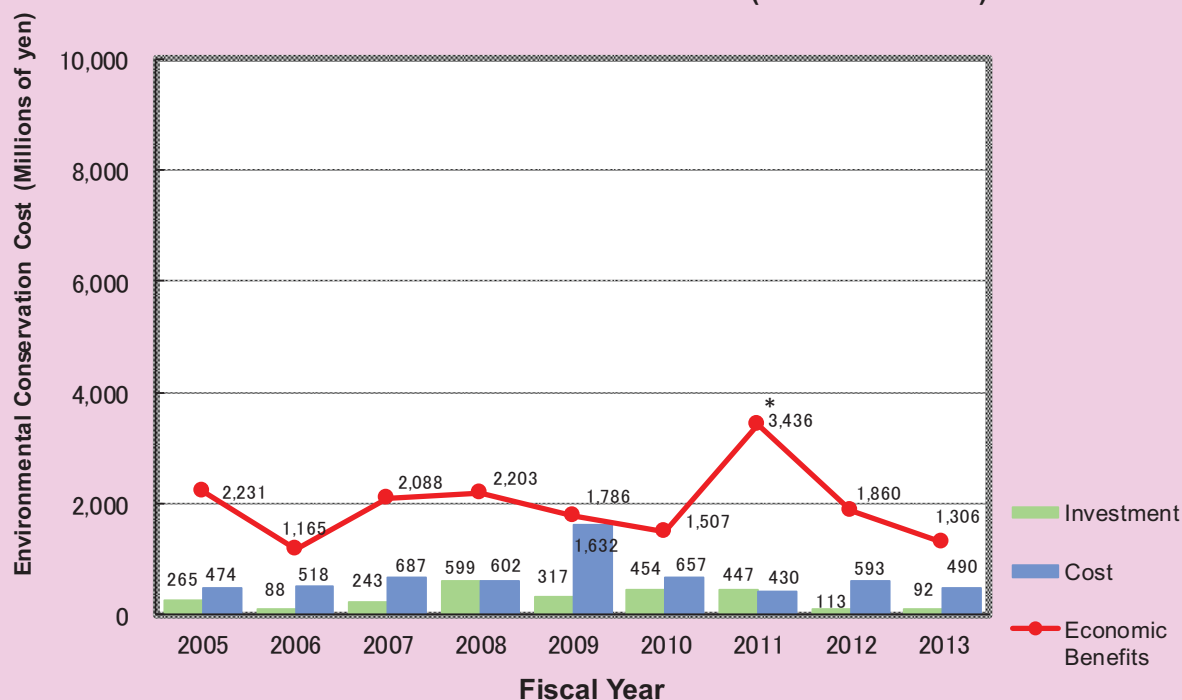
Overseas Bases

(Unit: Millions of yen)

Category of cost under the Guidelines	FY2011			FY2012			FY2013		
	Investment	Cost	Economic Benefits	Investment	Cost	Economic Benefits	Investment	Cost	Economic Benefits
Pollution prevention cost	64	221	-	3	385	-	12	320	-
Global environmental conservation cost	378	17	*2,487	79	43	1,278	55	43	491
Resource recycling cost	0	104	949	30	74	582	23	65	816
Administration cost	4	51	-	1	55	-	1	47	-
Social activity cost	0	15	-	0	1	-	0	1	-
Environmental remediation cost	0	0	-	0	0	-	0	0	-
Others	0	22	0	0	35	-	0	14	-
Total	447	430	*3,436	113	593	1,860	92	490	1,307

*Cost reduction effect achieved because REPI stopped using the cogeneration system and switched to power purchase in September 2011 (included in 2011 only).

Investment and Cost vs. Economic Benefits (Overseas Bases)



Environment Report

Approaches to Environmentally Friendly Products and Environment Month

Social contribution through products

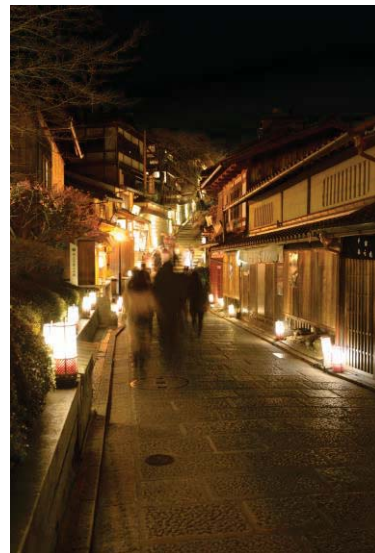
Donating LED bulbs for the Kyoto Lantern Festival

All of the lights used in the paper-covered lanterns and signpost lanterns at the Kyoto Lantern Festival were LED lamps donated by ROHM. Amid the demand for increased power savings throughout the country, issues were raised about holding the festival due to energy conservation and eco-friendliness.

However, the use of ROHM's high-efficiency LED lights, the amount of power consumed by the lanterns was cut to roughly 1/6th. Twice a year, in March and December, ROHM's LED lights brighten the Kyoto night.



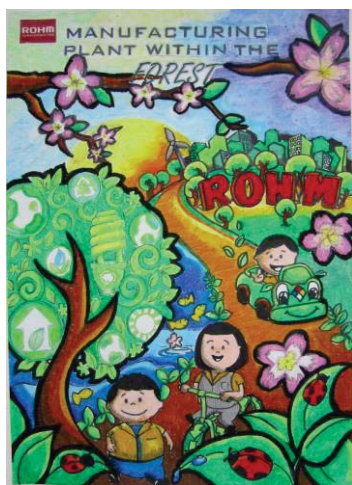
December / Kyoto Arashiyama Lantern Festival (in front of Rakushisha)



March / Kyoto Higashiyama Lantern Festival (Sanneizaka)

Environment-related Posters Contest during Environment Month

The ROHM Group Companies take June each year in which the World Environment Day is set as the Environment Month to encourage the submission of environment-related posters and slogans and hold the contest of them during the period. The number of entries increases each year and that of posters and slogans that seriously take the global environment increases as well.



Grand Prix



Award for Excellence



Award for Excellence

Approaches to Environmental Communications

Approaches in “Environmental Conservation”



ROHM Hamamatsu
Volunteer activities in the “Welcome Turtle
Cleanup Campaign”



LAPIS Semiconductor Miyazaki
“Joint Cleanup Activities” with
neighboring companies



ROHM Wako
Participation in the “Refresh
Setouchi” cleanup activities



ROHM Korea
Prevention of environmental
pollution by cleanup campaign on
a one-company, one-river basis



REPI
“Earth Day River Clean Up Activity”
game on World Environment Day



RSC
“Environment Beautification
Campaign”

Approaches in “Environmental Education”

ROHM Group’s “Environmental Education at Elementary Schools”

The ROHM Group visits neighboring elementary schools to provide environmental education for the students. In the schools, we gave the students classes with themes like creating circuits by combining ROHM’s various eco components, thinking together about what they can do to save power and enhancing their environmental awareness.



ROHM’s approach



REPI’s approach



RSC’s approach

Environmental Awards

ROHM received the "Commendation for Contribution to Environmental Conservation in the Organization and Top Runner Category"



Koji Yamamoto on the right, Chairperson of the ROHM's Environmental Conservation Management Committee, is receiving the Prize from the Governor of Kyoto Prefecture.



Testimonial and Commemorative Shield

On June 19, 2013, ROHM received the "Commendation for Contribution to Environmental Conservation in the Organization and Top Runner Category" from the Governor of Kyoto Prefecture.

This commendation has been given during the anniversary of the prefectural government office opening to organizations and individuals who are actively supporting Kyoto. This year, ROHM received the Prize in recognition of its promotion of reduction of CO₂ and waste emissions and recycling-based business operations to co-habit with the environment as well as contribution to environmental conservation.

ROHM will continue to strive for environmental impact reduction and also work on environmental conservation activities throughout the ROHM Group.

REPI received the "Outstanding Environmental Performer Award"



Scene of award ceremony in the presence of the Secretary of Trade and Industry of the Philippines and the Director General of PEZA



Trophy

REPI received the "Outstanding Environmental Performer Award" from the Philippine Economic Zone Authority (PEZA). REPI has been actively operating an environmental management system, such as the introduction of "closed wastewater treatment system(*)".

REPI will continue to work on positive community-based activities.

(*) The closed wastewater treatment system is a system designed to condense and vaporize wastewater that was scientifically neutralized. This system releases moisture having a water quality level higher than groundwater into the atmosphere. It never releases moisture into rivers nor gives environmental impact.

RMPI received the "Plaque of Green Rating" from Laguna Lake Development Authority



RMPI received the commemorative "Plaque of Green Rating" for fiscal year 2013 from Laguna Lake Development Authority (governmental organization) in recognition of its excellent environmental performance during the last three years.

Site Reports (Domestic and Overseas Bases)

ROHM Co., Ltd. 21 Saiin Mizosaki-cho, Ukyo-ku, Kyoto



■Manufacturing items:
Electronic parts, including
semiconductors

		2011	2012	2013
Power consumption	kWh	98,556,000	86,937,000	77,167,000
Fuel consumption	kl	1,559	1,419	1,012
Water consumption	1,000 m ³	831	784	750
Total waste emissions	t	584	502	394
Amount of waste finally disposed of as landfill	t	0.0	0.04	0.00
Waste recycling rate	%	100	99.99	100.00
Emissions into the atmosphere: NOx	t	1.7	1.5	1.1
Emissions into waters: BOD	t	6.1	6.1	5.0

■PRTR

Unit: tons

PRTR Ordinance number	Substances covered	2011	2012	2013					
		Amount handled	Amount handled	Amount handled	Amount emitted	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
213 N, N-dimethylacetamide		1.1	-	-	-	-	-	-	-
332 Arsenic and its inorganic compounds		0.8	0.7	0.531	-	-	-	-	0.531
374 Hydrogen fluoride and its water-soluble salts		20.8	7.5	6.146	0.428	0.432	-	5.286	-

ROHM Hamamatsu Co., Ltd. 10 Sanwa-cho, Minami-ku, Hamamatsu



■Manufacturing items:
ICs and LEDs

		2011	2012	2013
Power consumption	kWh	141,461,000	147,649,000	148,571,000
Fuel consumption	kl	3,411	3,492	4,021
Water consumption	1,000 m ³	1,160	1,096	1,215
Total waste emissions	t	943	984	894
Amount of waste finally disposed of as landfill	t	0.2	0.2	0.0
Waste recycling rate	%	99.98	99.98	99.99
Emissions into the atmosphere: NOx	t	5.2	5.2	5.7
Emissions into waters: BOD	t	60	60	53

■PRTR

Unit: tons

PRTR Ordinance number	Substances covered	2011	2012	2013					
		Amount handled	Amount handled	Amount handled	Amount emitted	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
213 N, N-dimethylacetamide		23.7	-	-	-	-	-	-	-
374 Hydrogen fluoride and its water-soluble salts		51.1	45.6	49.2	-	3.7	-	45.5	-

ROHM Wako Co., Ltd. 100 Tomioka, Kasaoka, Okayama



■Manufacturing items:
ICs, diodes, and semiconductor
lasers

		2011	2012	2013
Power consumption	kWh	95,047,700	91,022,400	91,778,200
Fuel consumption	kl	609	634	637
Water consumption	1,000 m ³	631	583	589
Total waste emissions	t	1,403	1,247	1,270
Amount of waste finally disposed of as landfill	t	0.3	0.3	0.3
Waste recycling rate	%	99.98	99.98	99.98
Emissions into the atmosphere: NOx	t	1.2	2.0	1.4
SOx	t	0.7	1.3	0.5
Emissions into waters: BOD	t	3.5	4.3	6.6

■PRTR

Unit: tons

PRTR Ordinance number	Substances covered	2011	2012	2013					
		Amount handled	Amount handled	Amount handled	Amount emitted	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
53	Ethylbenzene	6.8	6.0	5.7	3.8	-	-	-	1.9
58	Ethylene glycol monomethyl ether	3.5	3.3	3.6	-	-	-	-	3.6
80	Xylene	24.3	18.7	19.7	1.9	-	-	-	17.8
82	Silver and its water-soluble salts	1.5	1.8	1.8	-	-	0.5	-	1.3
213	N, N-dimethylacetamide	1.9	-	-	-	-	-	-	-
302	Naphthalene	12.3	10.3	10.1	0.1	-	-	-	10
343	Pyrocatechol	1.5	1.2	1.1	-	-	-	-	1.1
374	Hydrogen fluoride and its water-soluble salts	37.1	32.7	32	0.1	1.7	-	30.2	-
438	Methyl naphthalene	22.5	20.3	20	0.1	-	5.6	-	14.3

ROHM Apollo Co., Ltd. Hirokawa Chukaku Industrial Estate, Hirokawa-cho, Yame-gun, Fukuoka



■Manufacturing items:
ICs, transistors, diodes, SiC,
power modules, lighting, etc.

		2011	2012	2013
Power consumption	kWh	147,397,000	148,042,000	145,925,000
Fuel consumption	kl	2,216	2,128	2,173
Water consumption	1,000 m ³	1,465	1,217	1,253
Total waste emissions	t	1,857	1,623	1,342
Amount of waste finally disposed of as landfill	t	0.2	0.3	0.2
Waste recycling rate	%	99.99	99.98	99.99
Emissions into the atmosphere: NOx	t	5.5	4.0	3.3
SOx	t	2.9	3.8	3.7
Emissions into waters: BOD	t	12	10	10
COD	t	1.6	1.6	4.3

■PRTR

Unit: tons

PRTR Ordinance number	Substances covered	2011	2012	2013					
		Amount handled	Amount handled	Amount handled	Amount emitted	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
53	Ethylbenzene	3.0	2.1	3.6	0.1	-	-	-	3.5
64	Silver	0.3	1.2	-	-	-	-	-	-
80	Xylene	2.7	1.7	2.8	0.8	-	-	-	2.0
341	Piperazine	-	-	1.2	1.2	-	-	-	-
374	Hydrogen fluoride and its water-soluble salts	29.9	25.9	26.0	0.7	2.0	-	23.2	-
412	Manganese and its compounds	0.9	1.2	-	-	-	-	-	-
438	Methyl naphthalene	22.3	21.0	21.9	0.0	-	21.9	-	-



		2011	2012	2013
Power consumption	kWh	2,874,222	3,482,000	2,888,848
Water consumption	1,000 m ³	2.0	2	3
Total waste emissions	t	22	32	18
Amount of waste finally disposed of as landfill	t	0.0	0.0	0.0
Waste recycling rate	%	100.0	100.0	100.0
Emissions into waters: BOD	t	0.00	0.00	0.00
COD	t	0.00	0.00	0.00

■Manufacturing items:
Molds and dies, and lead frames

LAPIS Semiconductor Miyagi Co., Ltd. 1 Okinodaira, Oohira-mura, Kurokawa-gun, Miyagi



		2011	2012	2013
Power consumption	kWh	133,396,200	120,586,390	114,200,400
Fuel consumption	kl	3,702	3,534	3,525
Water consumption	1,000 m ³	1,592	1,421	1,234
Total waste emissions	t	1,509	1,144	1,113
Amount of waste finally disposed of as landfill	t	1.1	0.5	0.4
Waste recycling rate	%	99.93	99.96	99.96
Emissions into the atmosphere: NOx	t	12	12	9
SOx	t	8	5	6
Emissions into waters: BOD	t	2.3	1.8	2.0
COD	t	22	19	12

■Manufacturing items: ICs

■PRTR

Unit: tons

Ordinance number	Substances covered	2011		2012		2013			
		Amount handled	Amount handled	Amount handled	Amount emitted	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
278	Triethylenetetramine	2.3	1.5	1.1	0.2	0.9	-	-	-
343	Pyrocatechol	1.1	-	-	-	-	-	-	-
374	Hydrogen fluoride and its water-soluble salts	53.8	46.5	41.5	0.2	0.0	-	41.3	-
438	Methyl naphthalene	42.0	39.9	39.7	0.2	-	-	39.5	-

LAPIS Semiconductor Miyazaki Co., Ltd. 727 Kihara, Kiyotake-cho, Miyazaki City, Miyazaki Pref.



■Manufacturing items:
ICs, diodes, transistors, and SiC

		2011	2012	2013
Power consumption	kWh	164,717,837	168,147,914	174,093,000
Fuel consumption	kl	6,400	2,756	2,925
Water consumption	1,000 m ³	880	835	882
Total waste emissions	t	1,592	1,527	1,492
Amount of waste finally disposed of as landfill	t	2.6	0.0	0.0
Waste recycling rate	%	99.8	100.0	100.0
Emissions into the atmosphere: NOx	t	69	63	72
SOx	t	21	42	55
Emissions into waters: BOD	t	1.4	1.3	1.6
COD	t	1.5	1.4	1.5

■PRTR

Unit: tons

PRTR Ordinance number	Substances covered	2011	2012	2013						
		Amount handled	Amount handled	Amount handled	Amount emitted	Amount transferred	Amount consumed	Amount eliminated	Amount recycled	
20	2-aminoethanol	11.0	5.6	6.52	1.17	5.35	-	-	-	-
50	Ethylene glycol monoethyl ether	-	-	1.20	0.22	0.99	-	-	-	-
80	Xylene	3.2	1.8	1.08	0.19	0.88	-	-	-	-
374	Hydrogen fluoride and its water-soluble salts	27.3	21.2	22.93	0.13	1.59	-	-	21.21	-
438	Methyl naphthalene	75.7	74.8	65.91	0.33	-	-	-	65.58	-

ROHM Logistec Co., Ltd. 75 Masusaka, Kamogata-cho, Asakuchi, Okayama



■Business line:
Logistics management of the ROHM Group's products

		2011	2012	2013
Power consumption	kWh	1,072,722	1,040,688	1,203,000
Fuel consumption	kl	89	92	61
Water consumption	1,000 m ³	4	4	4
Total waste emissions	t	17	16	15
Amount of waste finally disposed of as landfill	t	0.04	0.01	0.03
Waste recycling rate	%	99.8	99.9	99.8
Emissions into the atmosphere: NOx	t	0.1	0.1	0.1
SOx	t	0.1	0.1	0.0
Emissions into waters: BOD	t	0.01	0.01	0.01

ROHM Korea Corporation 371-11 Gasan-Dong, Gumcheon-gu, Seoul 153-803 Korea



		2011	2012	2013
Power consumption	kWh	36,041,344	35,906,000	37,446,843
Fuel consumption	kl	68	59	57
Water consumption	1,000 m ³	98	103	102
Total waste emissions	t	464	463	443
Amount of waste finally disposed of as landfill	t	0.8	0.4	0.1
Waste recycling rate	%	99.8	99.9	100.0
Emissions into waters: BOD	t	0.4	0.2	0.5
COD	t	0.7	0.4	0.6

■Manufacturing items:
ICs, transistors, and diodes

■PRTR

Unit: tons

PRTR Ordinance number	Substances covered	2011	2012	2013					
		Amount handled	Amount handled	Amount handled	Amount emitted	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
31	Antimony and its compounds	6.4	6.5	6.5	-	-	2.4	-	4.1

ROHM Electronics Philippines, Inc. People's Technology Complex Special Economic Zone, Carmona, Cavite 4116 Philippines



		2011	2012	2013
Power consumption	kWh	152,745,000	188,036,000	197,134,000
Fuel consumption	kl	9,935	420	348
Water consumption	1,000 m ³	1,374	1,122	1,112
Total waste emissions	t	1,321	1,152	1,145
Amount of waste finally disposed of as landfill	t	0	0	0
Waste recycling rate	%	100	100	100
Emissions into the atmosphere: NOx	t	247	0.1	0.0
SOx	t	182	0.2	0.1
Emissions into waters: BOD	t	0.5	0.3	0.3
COD	t	2.5	1.3	0.6

■Manufacturing items:
ICs, transistors, and resistors

■PRTR

Unit: tons

PRTR Ordinance number	Substances covered	2011	2012	2013					
		Amount handled	Amount handled	Amount handled	Amount emitted	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
31	Antimony and its compounds	7.2	6.4	6.7	-	-	1.8	-	4.9
57	Ethylene glycol	0.9	1.0	0.9	-	-	-	-	0.9
82	Silver and its water-soluble compounds	8.3	7.6	8.6	-	-	7.8	-	0.8
308	Nickel	17.1	11.4	14.2	-	-	14.1	-	0.1
309	Nickel compounds	5.1	3.5	4.1	-	-	3.3	-	0.8

ROHM Integrated Systems (Thailand) Co., Ltd. 101/94, 102 Navanakorn Industrial Zone, Moo 20, Phaholyothin Road, Tambol Khlong-Nueng, Amphur Khlong-Luong, Pathumthani 12120 Thailand



		2011	2012	2013
Power consumption	kWh	151,685,000	133,073,000	144,620,000
Fuel consumption	kl	169	135	130
Water consumption	1,000 m ³	902	942	1,124
Total waste emissions	t	1,692	987	1,051
Amount of waste finally disposed of as landfill	t	0	0	0
Waste recycling rate	%	100	100	100
Emissions into waters: BOD	t	3.7	3.9	6.1
COD	t	16	16	27

■Manufacturing items:
ICs, transistors, diodes, and resistors

■PRTR

Unit: tons

PRTR Ordinance number	Substances covered	2011	2012	2013					
		Amount handled	Amount handled	Amount handled	Amount emitted	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
31	Antimony and its compounds	7.0	4.2	6.0	-	-	0.4	-	5.6
82	Silver and its water-soluble compounds	5.2	2.9	3.8	-	-	2.4	-	1.4
308	Nickel	13.6	8.9	11.7	-	-	8.5	-	3.2
309	Nickel compounds	6.2	3.5	4.4	-	-	2.8	-	1.6

ROHM Semiconductor (China) Co., Ltd.

No. 7 Weisan Road, Micro-electronics Industrial park, Jingang Highway
Xicing District, Tianjin 300385 China



■Manufacturing items:
Diodes, LEDs, lasers, LED displays,
and sensors

		2011	2012	2013
Power consumption	kWh	87,932,000	74,232,000	79,420,000
Water consumption	1,000 m ³	528	408	721
Total waste emissions	t	904	689	730
Amount of waste finally disposed of as landfill	t	682	515	513
Waste recycling rate	%	25	25	30
Emissions into waters: BOD	t	4.8	4.3	5.5
COD	t	21	14	15

■PRTR

Unit: tons

PRTR Ordinance number	Substances covered	2011		2012		2013			
		Amount handled	Amount handled	Amount handled	Amount emitted	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
31	Antimony and its compounds	3	1.5	-	-	-	-	-	-
37	Bisphenol A	38	33.5	29.8	-	4.5	25.3	-	-
71	Ferric chloride	42	43.3	41.8	-	-	41.8	-	-
82	Silver and its water-soluble compounds	2	1.8	1.6	-	-	1.5	-	0.1
265	Methyltetrahydrophthalic anhydride	1	1.2	-	-	-	-	-	-
291	Tris (2, 3-epoxypropyl)	13	12.1	12.6	-	-	12.6	-	-
305	Lead and its compounds	5	3.8	4.3	-	2.6	1.7	-	-

ROHM Electronics Dalian Co., Ltd.

No. 20 Four Street East & North, Dalian Economic & Technical Development Zone,
Dalian 116600 China



■Manufacturing items:
Power modules, thermal print heads,
contact image sensor heads, photo
link modules, lighting, optical sensors,
and LED displays

		2011	2012	2013
Power consumption	kWh	62,064,319	59,974,718	59,011,346
Fuel consumption	kl	4,516	4,014	3,417
Water consumption	1,000 m ³	588	554	519
Total waste emissions	t	183	222	237
Amount of waste finally disposed of as landfill	t	28	32	32
Waste recycling rate	%	84.5	85.7	86.4
Emissions into waters: BOD	t	1.5	1.4	1.1
COD	t	18	10	4

■PRTR

Unit: tons

PRTR Ordinance number	Substances covered	2011		2012		2013			
		Amount handled	Amount handled	Amount handled	Amount emitted	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
71	Ferric chloride	9.5	3.4	-	-	-	-	-	-
82	Silver and its water-soluble compounds	1.9	1.7	2.0	0.2	0.1	1.7	-	-

ROHM-Wako Electronics (Malaysia) Sdn. Bhd.

Lo1 1320 Kawasan Penindustrian, Peogkalan Chepa II,
Padang Tmenbak, 16100 Kota Bharu, Kelantan, Malaysia



■Manufacturing items:
Diodes and LEDs

		2011	2012	2013
Power consumption	kWh	73,117,000	65,767,000	62,898,000
Fuel consumption	kl	16	18	20
Water consumption	1,000 m ³	375	355	383
Total waste emissions	t	1,141	1,068	1,025
Amount of waste finally disposed of as landfill	t	85	76	80
Waste recycling rate	%	92.5	92.9	92.1
Emissions into waters: BOD	t	1.1	1.4	1.3
COD	t	3.4	3.5	3.3

■PRTR

Unit: tons

PRTR Ordinance number	Substances covered	2011		2012		2013			
		Amount handled	Amount handled	Amount handled	Amount emitted	Amount transferred	Amount consumed	Amount eliminated	Amount recycled
20	2-aminoethanol	1.7	1.6	1.3	-	-	1.3	-	-
71	Ferric chloride	19.5	19.7	13.7	-	-	13.7	-	-
82	Silver and its water-soluble compounds	2.2	-	-	-	-	-	-	-
291	Tris (2, 3-epoxypropyl)	1.0	-	-	-	-	-	-	-
304 & 305	Lead and its compounds	6.2	6.0	7.0	-	-	7.0	-	-



■ Manufacturing items:
Molds and dies, and lead frames

Fiscal year		2011	2012	2013
Power consumption	kWh	10,336,343	11,320,390	10,421,412
Fuel consumption	kl	328	475	47*
Water consumption	1,000 m ³	43	50	31
Total waste emissions	t	347	768	669
Amount of waste finally disposed of as landfill	t	0.1	0.00	0.00
Waste recycling rate	%	99.98	100.00	100.00
Emissions into the atmosphere: NOx	t	0.8	1.8	0.5
SOx	t	0.5	0.04	0.10
Emissions into waters: BOD	t	0	0	0
COD	t	0	0	0

* Substantially reduced due to the change of fuel used in the treatment facilities for wastewater from plating process.