

Environmental

Environmental conservation costs

(Unit: million yen)

Category	Key activity and the outcome	Furukawa Electric		Affiliated companies	
		Total cost	Year on year	Total costs	Year on year
1. Business area costs	Pollution prevention (air pollution, etc) energy conservation, waste disposal, etc.	1,191	58	383	-127
2. Upstream/downstream costs	Recovery of packaging, drums, etc.	152	-10	245	2
3. Administration costs	Environmental management system auditing, environmental impact monitoring, etc.	354	21	126	9
4. Research and development costs	Development of environmentally friendly products, research into alternatives for harmful substances	171	-107	62	-31
5. Social activity costs	Tree planting, local community cleaning activities, donations, etc.	2	-0	5	0
6. Environmental remediation costs	Environmental impact assessments, cleanup of polluted soil, etc.	1	-0	8	4
Total		1,871	-38	830	-143

Economic benefits associated with environmental conservation activities

(Unit: million yen)

Details of benefits	Total benefit	
	Furukawa Electric	Affiliated companies
Revenue from recycling	296	284
Reduction in waste disposal costs	-54	-69
Reduction in energy costs	-925	274
Reduction in water purchase costs	4	39
Total	-680	528

(note) Minus figures indicate an increase

Environmental conservation benefits

Environmental impact	Unit	Furukawa Electric		Affiliated companies
		Amount of environmental burden	Reduction	Reduction
Volume of industrial waste disposal processed ^(note 1)	tons	115	237	275
Energy consumption (crude oil equivalent)	1,000KL	137	-9	3
Water consumption	1,000 tons	8,175	129	-202
Emissions of volatile organic chemical compounds	tons	210	-14	-12
CO ₂ emissions	1,000 tons-CO ₂	229	-12	17
SO _x emissions	tons	1	13	0
NO _x emissions	tons	32	13	9
Soot emissions	tons	3	1	1

(note1) Excluding recycled wastes

(note) Minus figures indicate an increase

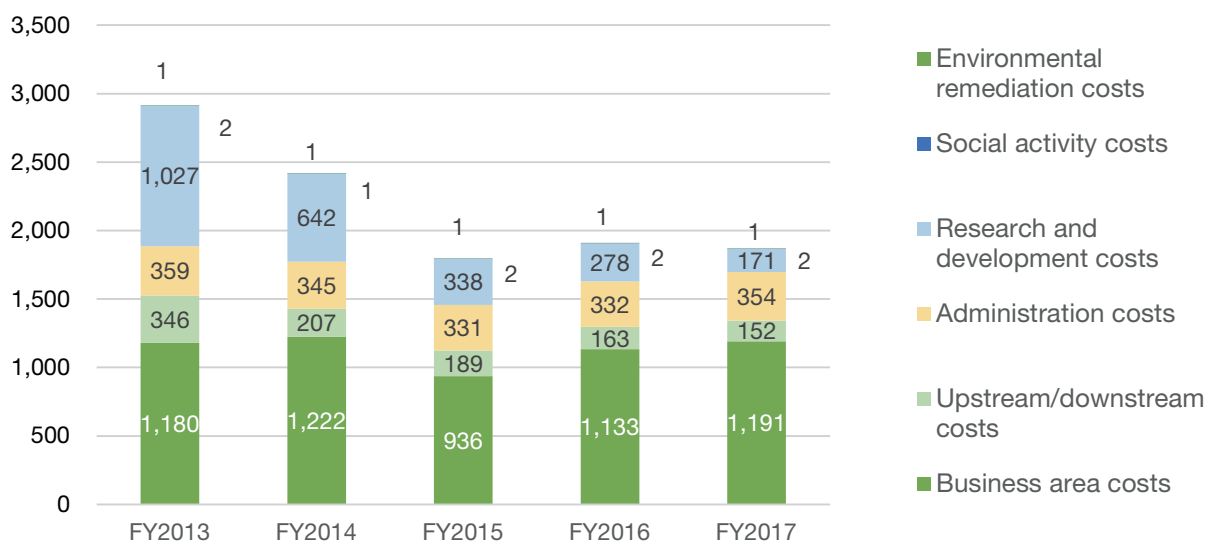
Investment and research costs

(Unit: million yen)

Investment and research costs	Total costs	
	Furukawa Electric	Affiliated companies
Total investment	11,919	4,873
Of which, environment-related investment	1,055	390
Total research costs	8,780	2,245

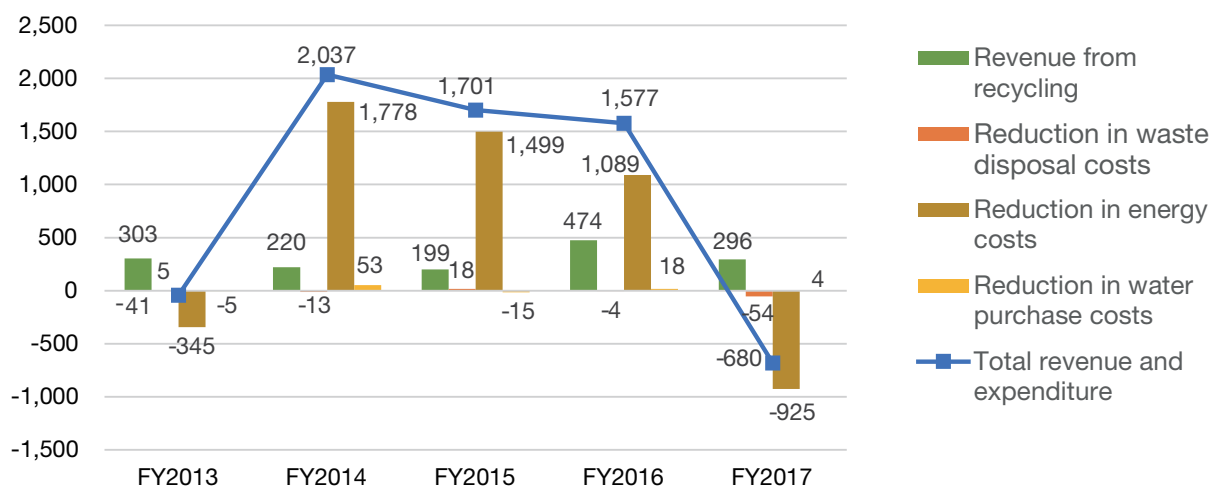
Environmental conservation costs (Furukawa Electric)

(Unit: million yen)



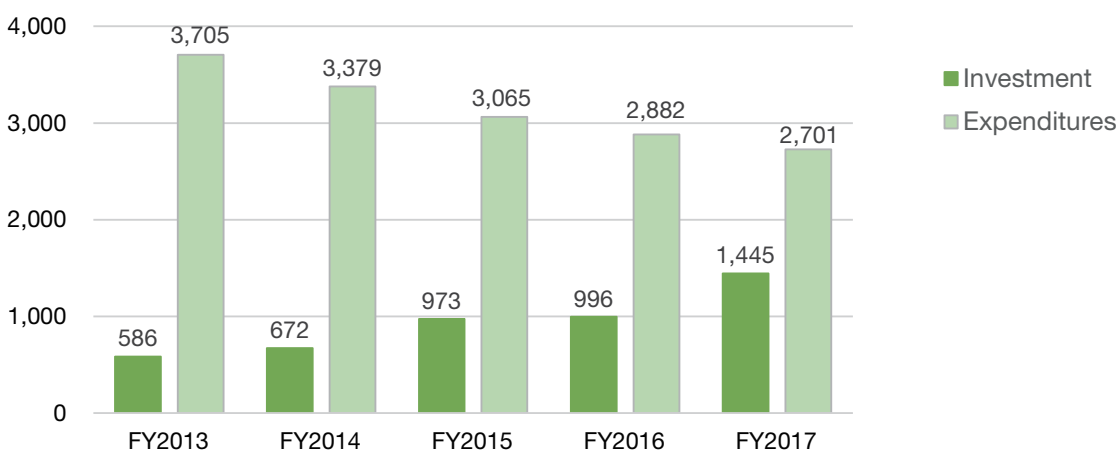
Economic benefits associated with environmental conservation activities (Furukawa Electric)

(Unit: million yen)



Environment-Related Investment and Expenditures (Furukawa Electric and Affiliated Companies)

(Unit: million yen)



Environmentally-friendly products: Sales ratio

(Unit: %)

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Furukawa Electric	42.6	43.4	48.3	50.0	51.1
Furukawa Electric (consolidated)	24.5	24.4	30.6	32.0	32.6

Use of water resources(Unit: 1,000 m³)

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Furukawa Electric + Japan group companies	20,139	20,983	19,887	10,289	10,362
Overseas Group Companies	2,682	2,749	2,649	2,611	2,652
Total	22,821	23,732	22,536	12,900	13,014

Amount of wastewater discharged(Unit: 1,000 m³)

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Furukawa Electric + Japan group companies	17,941	17,998	16,920	9,095	9,494
Public water area	17,371	17,448	16,451	8,491	8,754
Rivers	15,975	16,203	15,248	7,684	7,789
Oceans	1,393	1,218	1,185	787	949
Other	3	20	18	20	17
Sewerage	570	550	469	604	740
Overseas Group Companies	1,563	1,857	1,654	1,913	1,715
Public water area	540	608	475	379	417
Rivers	320	365	243	105	108
Oceans	0	0	0	0	0
Other	221	243	232	274	309
Sewerage	1,023	1,249	1,179	1,534	1,298

Amount of water recycled and reused

(Unit: Tons)

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Furukawa Electric + Japan group companies	1,128	1,126	1,121	1,118	1,113
Overseas Group Companies	10,357	10,631	24,983	31,703	37,121

Raw materials

(Unit: 1,000 Tons)

		FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Furukawa Electric + Japan group companies	Copper	163.5	150.2	165.2	168.5	177.8
	Aluminum	1.3	8.0	7.1	7.0	6.7
	Steel	3.0	2.2	2.3	2.5	2.2
	Other metals	3.2	0.9	3.7	4.8	5.3
	Glass	0.0	0.0	0.0	0.0	0.0
	Plastics	37.6	37.4	31.2	32.7	33.2
Overseas Group Companies	Copper	179.0	191.7	168.2	167.6	180.4
	Aluminum	35.9	20.6	26.5	30.0	39.3
	Steel	7.5	7.6	7.6	11.4	9.7
	Other metals	--	--	0.0	1.1	0.9
	Glass	2.8	3.5	3.0	3.4	3.8
	Plastics	29.1	39.5	40.1	40.5	41.7

Amount of final disposal

(Unit: 1,000 Tons)

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Furukawa Electric + Japan group companies	0.4	0.3	0.2	0.3	0.4
Overseas Group Companies	8.6	15.3	10.3	12.0	12.0

Amount of recycled resources

(Unit: 1,000 Tons)

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Furukawa Electric + Japan group companies	30.8	31.1	31.5	30.5	26.8
Overseas Group Companies	28.3	8.1	8.1	5.2	5.2

Total amount of waste generated

(Unit: 1,000 Tons)

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Furukawa Electric + Japan group companies	34	34	34	33	30
Overseas Group Companies	38	23	18	18	17
Total	72	57	52	51	47

(note) Total amount of waste generated in Japan includes valuable resources

NO_x and SO_x emissions

(Unit: Tons)

		FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Furukawa Electric + Japan group companies	NO _x	102	108	222	55	55
	SO _x	48	28	46	15	1

Emissions of volatile organic compounds (VOC)

(Unit: Tons)

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Furukawa Electric	192	152	172	196	210
Japan group companies	103	99	100	108	120
Total	295	251	272	304	330

Greenhouse gas emissions disclosed to CDP(1,000 tons of CO₂e / year)

		FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Furukawa Electric Group	Scope1	157	138	155	209	235
	Scope2	685	694	676	671	665
	Scope3	--	--	1,649	1,584	1,622
Total		--	--	2,480	2,464	2,522

Energy consumption

(Unit: 1,000 kl)

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Furukawa Electric + Japan group companies	213	193	188	192	198
Overseas Group Companies	205	213	223	220	221
Total	418	406	411	412	419

GHG emissions per unit of sales(ton-CO₂ / 1 million yen)

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Furukawa Electric + Japan group companies	0.794	0.794	0.781	0.793	0.702
Overseas Group Companies	1.054	1.163	1.131	1.173	0.991

List of PRTR compatible materials (Furukawa Electric and Affiliated Companies) (Unit: Tons)

Substance No.	Substance	Volume handled	Volume released	Volume transferred	Volume contained in products/ disappeared by combustion
1	Zinc and its compounds	4.5	0.0	0.5	4.1
31	Antimony and its compounds	396.5	5.9	51.5	339.1
53	Ethylbenzene	102.4	0.7	5.0	96.7
71	Ferric chlorides	53.8	0.3	15.8	37.8
75	Cadmium and its compounds	93.8	0.0	1.6	92.2
80	Xylene	130.8	3.0	5.4	122.5
82	Silver and its water-soluble compounds	5.0	0.0	1.1	3.8
86	Cresol	446.8	8.1	18.3	420.5
87	Chromium and trivalent chromium compounds	12.6	0.0	0.0	12.5
88	Hexavalent chromium compounds	5.4	0.0	4.2	1.2
132	Cobalt and its compounds	4.4	0.0	0.1	4.4
144	Inorganic cyanide compounds (Excluding complex salt and cyanate)	7.2	0.1	6.3	0.8
213	N,N-dimethylacetamide	754.0	19.4	22.6	712.0
232	N,N-dimethylformamide	0.6	0.0	0.0	0.5
255	Decabromodiphenyl ether	290.2	0.4	102.8	186.9
272	Copper salts (water-soluble)	5,933.7	0.1	24.9	5,908.8
296	1,2,4-trimethylbenzene	22.0	0.1	0.0	21.9
297	1,3,5-trimethylbenzene	2.6	0.3	0.1	2.2
300	Toluene	267.7	151.9	45.5	70.2
304	Lead	8,849.8	0.1	0.3	8,849.4
305	Lead compounds	30,427.4	0.1	4.4	30,422.9
308	Nickel	571.8	0.0	3.9	567.9
309	Nickel compounds	97.4	0.0	11.8	85.6
332	Arsenic and its inorganic compounds	14.2	0.0	0.0	14.2
333	Hydrazine	7.7	0.0	0.0	7.7
349	Phenol	334.5	6.1	13.8	314.6
355	Bis (2-ethylhexyl) phthalate	196.7	0.0	0.2	196.5
374	Hydrogen fluoride and its water-soluble compounds	4.5	0.0	2.2	2.3
384	N-propyl bromide	1.6	1.6	0.0	0.0
392	N-hexane	1.4	0.7	0.0	0.7
405	Boron and its compounds	14.7	0.7	0.6	13.4
412	Manganese and its compounds	9.1	0.0	0.0	9.1
413	Phthalic anhydride	4.0	0.0	0.0	4.0
438	Methylnaphthalene	21.6	0.0	0.0	21.6
Total		49,090.5	199.6	342.8	48,548.0

(note) This list is target for substances with a transaction volume of 1 tons or more (0.5 tons or more for Class 1 Designated Chemical Substances) for the entire Group.