

# Pioneer Group Environmental Data 2016

## ■ Targets, Plans and Performance

Category	Issue	Target	Numerical Goal	FY2012	FY2013	FY2014	FY2015	FY2016	Self assessment FY2016
Targets	Prevention of Global Warming	CO2 equivalent greenhouse gas emission Japan:12% reduction fromFY2010 to FY2021(Gross emission)	974	826	790	757	748	758	◎Achieved 22% reduction
		CO2 equivalent greenhouse gas emission Japan and overseas:10% reduction fromFY2010 to FY2021(emissions per unit of sales amount)	0.271	0.256	0.249	0.206	0.211	0.196	◎Achieved 28% reduction
	Conservation of Resources, and Recycling	Reducing value resources/waste material Japan & Overseas:3% reduction from FY2011 level on a per unit of sales amount	3.871	0.299	3.133	2.789	2.669	2.802	◎Achieved 16% reduction
Controls	Prevention of Global Warming	Exhaust of five GHG(Five gases except CO2) Worldwide : maintaining FY2014 level	5	2.2	2.8	2.4	2.2	1.4	◎Achieved reduce1000 tonne CO <sub>2</sub>
		Management of the energy accompanying transportation of products in Japan:Check of less than 30 mega-tonne-kilometers	30 mega-tonne-kilometers	18.18 mega-tonne-kilometers	15.18 mega-tonne-kilometers	15.15 mega-tonne-kilometers	13.67 mega-tonne-kilometers	10.64 mega-tonne-kilometers	◎Achieved
	Conservation of Resources, and Recycling	Recycling rate for valuable resources /waste material Japan:Maintaining 99.5% rate or higher Overseas:Maintaining 99% rate or higher	Japan:99.5% Overseas:99%	Japan:100% Overseas:99.5%	Japan:100% Overseas:100%	Japan:100% Overseas:99.9%	Japan:100% Overseas:99.5%	Japan:99.9% Overseas:99.3%	◎Achieved
		Green purchasing promotion Japan:Maintaining 95% rate or higher	95.0%	92.3%	98.5%	99.6%	98.6%	96.2%	◎Achieved
		Management of the amount of the water resources used Worldwide : maintaining FY2014 level	1.836million m <sup>3</sup>	1.983million m <sup>3</sup>	1.836million m <sup>3</sup>	1.730 million m <sup>3</sup>	1.730 million m <sup>3</sup>	1.667 million m <sup>3</sup>	◎Achieved keep numerical Goal 3.6%reduction from FY2015 result
	Management of chemical substances	Management of the amount of office paper purchase Worldwide : maintaining FY2014 level	2,860million sheet	2,770million sheet	2,860million sheet	2,620million sheet	2,350million sheet	2,080million sheet	◎Achieved
		Management of emissions of PRTR chemical substances VOCs <sup>※2</sup> Worldwide :maintaining FY2014 level	136	286	136	105	105	119	◎Achieved
		Management of emissions of SOx,NOx, and dust Worldwide :maintaining FY2014 level	Sox 11tonnes Nox 15tonnes Dust 0.3tonnes	Sox 13tonnes Nox 11tonnes Dust 0.3tonnes	Sox 11tonnes Nox 13tonnes Dust 0.3tonnes	Sox 4tonnes Nox 13tonnes Dust 0.3tonnes	Sox 4tonnes Nox 8tonnes Dust 0.3tonnes	Sox 0.9tonnes Nox 4.1tonnes Dust 0.2tonnes	◎Achieved

\*1: By regulation of Zero emission of waste (Pioneer's definition), it judges for every plant.\*2: The target material is 20 kinds for JEITA's independence reduction activity.

(Note) Self-evaluation standards (broad estimates) Significantly exceeds the target: 110% or more/ Achieved the target: 100% to less than 110%/ Fell slightly short of the target: 95% to less than 100%/ Failed to meet the target: less than 95%

## ■ Input and output

### Input Amount of resources required for business activities

Procurement	Resources	Unit	FY2012	FY2013	FY2014	FY2015	FY2016
Planning, design, production	Total energy	10,000 tonnes	9.4	9.3	9.7	9.5	7.3
	Water consumption	TJ	1,853	1,872	1,786	1,782	1,611
	Chemical substances handled	10,000 m <sup>3</sup>	193	184	174	173	167
	Office paper	tonnes	340	145	123	144	161
Transportation	Goods Transported	10,000 sheets	2,810	2,860	2,620	2,350	2,090
	Total energy	10,000 tonnes	8	7.9	8.3	8.2	5.9
Service	Water consumption	TJ	7.9	7.3	7	7.7	6.5
		m <sup>3</sup>	-	1,026	711	786	876

### Output Environmental impact emitted as a result of business activities

Procurement	Resources	Unit	FY2012	FY2013	FY2014	FY2015	FY2016
Planning, design, production	Greenhouse gases discharged	10,000 tonnes CO2	10.7	11.4	10.3	10.6	9
	Waste generated	10,000 tonnes	1.4	1.4	1.4	1.3	1.2
	Amount recycled	10,000 tonnes	1.3	1.3	1.3	1.2	1.2
	Waste water	10,000 tonnes m <sup>3</sup>	193	153	141	142	147
	Waste chemical substances	tonnes	277	127	99	105	134
	SOx	tonnes	13.1	10.7	4.2	3.7	0.9
	NOx	tonnes	11.2	14.8	12.8	8.3	4.1
Transportation	CO2(in Japan)	1,000 tonnes	3.9	3.4	3	2.9	2
Used by customer	Recycled packaging materials (in Japan)	tonnes	324	256	188	184	140
Service	Greenhouse gases discharged	tonnes CO2	327	380	266	393	335
	Waste generated	tonnes	63	54	168	352	182
	Amount recycled	tonnes	63	54	167	350	181
	Waste water	m <sup>3</sup>	-	1,026	711	786	876

## ■ Environmental Costs

(Millions of JPY)

Category	Description	Details	FY2012		FY2013		FY2014		FY2015		FY2016	
			Investment	Expense	Investment	Expense	Investment	Expense	Investment	Expense	Investment	Expense
Plants	Anti-pollution costs	Wastewater treatment and management, water quality analysis, smoke treatment, etc.	5	114	5	104	3	98	0	103	3	92
	Global environmental preservation	Energy saving-related costs (depreciation of solar power generation, demand control, inverter control, power measuring systems introduction, etc.)	30	13	2	65	9	12	0	65	1	53
	Resource recycling costs	Waste disposal and recycling costs	2	101	19	61	0	62	0	94	2	86
Upstream and downstream costs	Cost of reducing environmental impacts generated upstream or downstream in production and servicing activities	Diffrence from environmental-friendly products (elimination of styrene foam, energy saving component by introduction of EDX equipment, green purchasing)	3	18	17	23	4	17	0	17	0	17
Management activities	Cost of acquiring and maintaining ISO14001 certification, education and training costs, PR costs	Cost of acquiring and maintaining ISO certification, environmental organization personnel expenses, Education and training cost, PR activities, cleanup activities	4	216	0	215	0	173	0	218	2	334
R&D	Environmental preservation costs in R&D activities	Cost of developing technologies including environmental factors	47	583	60	597	54	540	31	573	45	547
Social activities	Environmental preservation costs in social activities	Voluntary environmental preservation activities (Cleanup activities, etc.) and donations to environmental groups	0	12	0	13	0	8	0	11	0	10
Environmental remediation	Environmental remediation cost	Cost to restore, cover degradation suits or insurance fees.	0	0	0	0	0	0	0	0	0	0
Total			91	1,057	104	1,078	70	909	31	1,081	53	1,141

## ■ Economic Benefits

(Millions of JPY)

Category	Details	FY2012	FY2013	FY2014	FY2015	FY2016
1. Saving due to environmental preservation (energy saving, pollution prevention, etc.)	Power reduction by purchase of energy saving equipment, upgrading, etc.	117	18	16	10	48
2. Savings due to resources recycling (resource saving, recycling, waste disposal, etc.)	Reduction of waste disposal costs, Profits from sales of valuable resources.	48	84	37	21	18
3. Upstream and downstream savings (in procurement, production, distribution, green purchasing)	Reduction in component unit price, reduction in distribution costs, green purchasing effect.	1	2	0	0	0
Total		166	104	54	31	66

## ■ Environmental Conservation Benefit

Category	Details	Unit	FY2012	FY2013	FY2014	FY2015	FY2016
1. Global warming	Reduction in greenhouse gases	10 <sup>4</sup> tonnes CO2	100	114	103	106	90
2. Resource recycling	Reduction in waste discharge amount	10 <sup>3</sup> tonnes	14	14	14	13	13
	Reduction in usage of water	10 <sup>3</sup> m <sup>3</sup>	1,983	1,836	1,730	1,730	1,667

## ■ Global Warming Prevention Activities

### Greenhouse gases emissions

(1000tonnes CO2e)

	Category	FY2012	FY2013	FY2014	FY2015	FY2016
Japan	Scope 1	6	5	6	5	5
	Scope 2	26	35	32	36	33
	Scope 3	0	0	0	1	0
	PFC, HFC, etc	4	2	2	2	1
	Total	35	43	40	44	40
Overseas	Scope 1	4	3	4	3	2
	Scope 2	60	66	58	59	47
	Scope 3	1	1	1	0	1
	PFC, HFC, etc	0	0	0	0	0
	Total	65	71	63	62	50

### Energy consumption

(TJ)

	Category	FY2012	FY2013	FY2014	FY2015	FY2016
Japan	Electricity	727	695	664	659	674
	Fuel	50	48	49	44	39
	Gas	50	48	44	45	44
	Total	826	790	757	748	758
Overseas	Electricity	1,030	1,097	970	979	827
	Fuel	63	52	39	33	15
	Gas	34	23	37	19	12
	Total	1,127	1,172	1,046	1,031	853

### Reduction of Non-Energy-Derived Greenhouse Gases

(1000tonnes CO2e)

	Reduction of Non-Energy-Derived Greenhouse	FY2012	FY2013	FY2014	FY2015	FY2016
Japan		2.2	2.8	2.4	2.2	1.9

\* This data includes CO2, CHCO4, HFC, PFC, N2O, SF6, HFE, NF3

### Energy Saving in Distribution (Modal shift)

#### Transition of CO2 emissions by domestic product

		FY2012	FY2013	FY2014	FY2015	FY2016
Japan	tonnes-CO2/billion JPY	9.03	7.57	60.4	5.26	4.35
	tonnes-CO2	3,945	3,422	3,009	2,637	1,956

### CO2 reduction by modal shift

(tonnes CO2)

	CO2 reduction by modal shift	FY2012	FY2013	FY2014	FY2015	FY2016
Japan		161	195	316	343	203

### Green Purchasing Activities

	Green Purchasing Activities	FY2012	FY2013	FY2014	FY2015	FY2016
Japan		92.3%	98.5%	99.6%	98.6%	96.2%

### Switching to eco-friendly vehicles

(Vehicles)

	Category	FY2012	FY2013	FY2014	FY2015	FY2016
Japan	Ultra Low-Emission(hybrid)	34	58	69	81	36
	Ultra Low-Emission(Other)	246	256	235	266	161
	Low-Emission	72	72	47	18	6
	Ordinary	88	81	66	55	53
	Total	440	467	417	420	256

### Transition of office paper purchases

(million sheet)

	FY2012	FY2013	FY2014	FY2015	FY2016
Japan	10.4	10.8	11.4	12.3	10.4
Overseas	17.3	17.8	14.8	11.2	10.5

## ■ Reduction in Waste and Valuables

### Transition of generation amounts of waste and valuables

(tonnes)

	FY2012	FY2013	FY2014	FY2015	FY2016
Japan	1,630	1,464	1,734	1,703	2,135
Overseas	12,665	12,691	12,155	11,687	10,462

### Transition of recycling rate

	FY2012	FY2013	FY2014	FY2015	FY2016
Japan	100.0%	100.0%	100.0%	100.0%	99.9%
Overseas	99.5%	100.0%	99.9%	99.5%	99.3%

### Breakdown of waste and valuables

Japan	FY2012	FY2013	FY2014	FY2015	FY2016
Sludge	4.40%	5.00%	3.70%	6.17%	3.61%
Waste oil	3.00%	3.30%	2.40%	4.59%	2.07%
Waste acids	-	-	0.02%	0.15%	0.04%
Waste alkali	0.30%	0.40%	0.10%	0.52%	0.27%
Waste Plastics and rubber	21.90%	22.30%	22.80%	24.04%	22.04%
Waste paper	41.10%	43.30%	39.70%	37.87%	35.72%
Wood waste	1.70%	2.50%	2.20%	2.61%	3.60%
Waste textile	-	-	0.02%	0.01%	0.00%
Gabage	3.30%	3.90%	4.80%	2.90%	2.70%
Waste metals	23.30%	18.30%	23.20%	20.37%	28.99%
Glass and pottery waste	0.80%	1.10%	1.20%	0.77%	0.95%

Overseas	FY2012	FY2013	FY2014	FY2015	FY2016
Waste paper	-	-	34.2%	36.2%	37.6%
Waste metals	-	-	31.8%	27.2%	28.4%
Gabage	-	-	10.0%	10.0%	10.7%
Waste Plastics and rubber	-	-	4.2%	4.9%	3.9%
Wood waste	-	-	1.6%	2.3%	2.9%
Sludge	-	-	0.9%	0.4%	0.4%
Waste acids and alkali	-	-	0.7%	0.7%	0.6%
Waste oil	-	-	0.2%	0.2%	0.2%
Glass and pottery waste	-	-	0.1%	0.2%	0.3%
General waste from dormitories	-	-	5.2%	5.3%	5.3%
Other	-	-	10.9%	12.8%	9.8%

## Management of Chemical Substances

### Trends in VOC emissions

	(tonnes)				
	FY2012	FY2013	FY2014	FY2015	FY2016
Japan	12	15	13	19	48
Overseas	266	112	86	86	86

### Trends in PRTR chemical substances handling and emissions

		(tonnes)				
		FY2012	FY2013	FY2014	FY2015	FY2016
Japan	Volume handled	8	9	6	13	24
	Volume emitted	0	0.02	0.02	1	3.3

### Handling, transfer and emissions of PRTR chemical substances

		(tonnes)									
	Substance	Volume handled	Emissions			Transferred		Transferred in the products	Volume removed or disposed	Volume recycled	
			Volume emitted into atmosphere	Volume emitted into water	Volume emitted to soil	Volume transferred as waste	Volume transferred to sewers				
Japan	FY2016	Methylnaphthalen <sup>※</sup>	14.9	0.1	0	0	0	0	14.8	0	0
		Hydrogen Fluoride and its salt	3.5	0	0	0	0	0	0	3.5	0
		Toluene	3.4	1.7	0	0	1.4	0	0.3	0	0
		1,2,4-trimethyl benzene	2.6	0	0	0	0.1	0	2.5	0	0
		Xylene	2.3	0.1	0	0	0	0	2.2	0	0
		2-ethoxyethyl acetate <sup>※</sup>	2.0	0.4	0	0	0	0	0	0	1.6
		Total	28.6	2.3	0	0	1.5	0	19.8	3.5	1.6
	FY2015	Methylnaphthalen <sup>※</sup>	7.5	0.04	0	0	0	0	7.5	0	0
		Hydrogen Fluoride and its salt	3.4	0	0	0	0	0	0	3.4	0
		N,N-dimethylformamide	1.3	0	0	0	1.3	0	0	0	0
		Toluene	1.0	1.0	0	0	0	0	0	0	0
		Total	13.2	1.0	0	0	1.3	0	7.5	3.4	0
	FY2014	Methylnaphthalen <sup>※</sup>	4.1	0.02	0	0	0	0	0	4.1	0
		Hydrogen Fluoride and its salt	2.1	0	0	0	0	0	0	2.1	0
		Total	6.2	0.02	0	0	0	0	0	6.2	0
	FY2013	Methylnaphthalen <sup>※</sup>	4.3	0.02	0	0	0	0	0	4.3	0
		N,N-dimethylformamide	3.3	0	0	0	0	0	0	3.3	0
		Toluene	1.6	0	0	0	1.6	0	0	0	0
		Total	9.3	0.02	0	0	1.6	0	0	7.6	0
	FY2012	Hydrogen Fluoride and its salt	4.1	0	-	-	0	0	0	4.1	0
N,N-dimethylformamide		1.4	0	-	-	1.4	0	0	0	0	
Total		5.5	0	-	-	1.4	0	0	4.1	0	

※Methylnaphthalen is included in the distilled fuel for power generation.

This table is the result of the aggregate quantity that one substance handled by one plant exceeds one tonne in Japan.

※2-ethoxyethyl acetate as like Ethylene glycol monoethyl ether acetate

### Trends in SOx, NOx and Smoke Dust emissions

		(tonnes)				
Category		FY2012	FY2013	FY2014	FY2015	FY2016
Japan	Dust	0.2	0.2	0.2	0.2	0.2
	NOX	6	10	10	5	4
	SOX	2	2	2	2	0.8
Overseas	Dust	0.1	0.1	0.1	0.1	0
	NOX	5	5	3	3	0.1
	SOX	11	9	2	2	0.1

## ■ Reduction of Water Usage and Discharged Water Amounts

### Water usage

(1000m<sup>3</sup>)

分類		FY2012	FY2013	FY2014	FY2015	FY2016
Japan	Industrial Water	61	60	64	64	66
	Underground water	470	397	357	376	423
	Public water supply	161	119	107	99	93
Overseas	Industrial Water	0	0	3	2	1
	Underground water	22	37	35	38	35
	Public water supply	1,269	1,223	1,164	1,151	1,050

### Discharged water

(1000m<sup>3</sup>)

分類		FY2012	FY2013	FY2014	FY2015	FY2016
Japan	Public water	276	186	212	238	288
	Sewer	363	319	291	284	281
	Other	4	5	8	10	6
Overseas	Public water	248	134	81	68	73
	Sewer	814	895	800	796	823
	Other	34	0	28	25	0

## ■ Number of Environment-related Qualification

The Pioneer Group has secured staff numbers exceeding the legally required number of qualified persons in Japan.

Qualification	Legally required number	Number of Holders						
		FY2012	FY2013	FY2014	FY2015	FY2016		
National qualification	Pollution-related							
	Pollution Control Manager	4	17	10	12	13	12	
	Energy	Qualified Person for Energy Management	3	10	10	8	7	7
		Energy Manager and Energy Management	4	7	10	10	8	11
	Waste	Managers of the Specially Controlled Industrial waste	11	43	43	41	36	38
		Hazardous Materials Offers	12	209	204	174	151	147
	Handling of hazardous materials	Specified High Pressure Gas Handling Supervisor	2	55	56	53	40	49
		High Pressure Gas Handling Supervisor	0	5	3	2	2	2
		Work Supervisor(Organic Solvents,Lead,Specified Chemical Substance)	24	420	372	345	301	295
		Toxic Substance Handling Officer	0	8	8	8	9	8
Company qualification	Environmental management	Internal Environmental Auditor(In Japan)	-	95	83	79	60	65
		Internal Environmental Auditor(Overseas)	-	234	244	251	239	156

## Environmental Impact

Site name	District	Energy consumption (GJ)	Waste (tonnes)	Chemical substances* emissions (tonnes)	Waste use (× 10 <sup>3</sup> m <sup>3</sup> )
FY2016					
Pioneer Corporation Headquarters	Kanagawa pref.	58,774	381	0.0	20.3
Pioneer Corporation Kawagoe plant	Saitama pref.	104,790	656	9.1	43.3
Pioneer FA corporation	Saitama pref.	4,254	11	0.0	1.2
Pioneer Fintech Corporation	Saitama pref.	13,190	76	5.6	1.6
Tohoku Pioneer Corporation	Yamagata pref.	215,856	339	1.6	87.4
Mogami Denki Corporation	Yamagata pref.	2,045	1	0.1	3
Tohoku Pioneer EG Corporation	Yamagata pref.	24,174	173	0.0	5.1
Towada Pioneer Corporation	Aomori pref.	23,263	176	2.4	5.7
Pioneer Micro Technology Corporation	Yamanashi pref.	272,729	110	2.4	412.6
Pioneer Automotive Technologies, Inc. (PAT)	USA	32,630	1,844	0	3.5
Pioneer do Brasil Ltda.(PBL)	Brazil	32,708	786	0	34.2
Pioneer Yorkey do Brasil Ltda. (PYB)	Brazil	14,454	81	0	2.5
Pioneer Technology (Malaysia) Sdn. Bhd.(MPT)	Malaysia	198,874	21	0	43.3
Pioneer Manufacturing (Thailand) Co., Ltd. (PTM)	Thailand	77,598	750	0	149.8
Tohoku Pioneer (Thailand) Co., Ltd. (TPT)	Thailand	66,364	2,837	0	52.6
Tohoku Pioneer (Vietnam) Co., Ltd.(TPV)	Vietnam	45,524	782	0	26.1
Shanghai Pioneer Speakers Co., Ltd. (SPS)	China	51,530	918	0	69.8
Pioneer Technology (Shanghai) Co., Ltd. (PSG)	China	171,835	346	39	59.3
Pioneer Electronics (Shanghai Export Zone) Co. Ltd. (PGE)	China	26,436	0	46.6	5.6
Pioneer Technology (Dongguan) Co., Ltd. (PTD)	China	87,957	726	0	308.8
Dongguan Monetech Electronic Co., Ltd. (MND)	China	21,861	262	0	49.6
Mogami Dongguan Electronics Co.,Ltd. (MDE)	China	8,798	155	0.6	273.8
Pioneer Sintai (Donguan) Optical Co.,Ltd.(PSD)	China	508	0	0	2
FY2015					
Pioneer Corporation Headquarters	Kanagawa pref.	57,168	209	0	26.3
Pioneer Corporation Kawagoe plant	Saitama pref.	105,435	517	1.1	40.7
Pioneer FA corporation	Saitama pref.	4,633	8	0	1.2
Pioneer Fintech Corporation	Saitama pref.	12,012	56	6.2	1.6
Tohoku Pioneer Corporation	Yamagata pref.	214,345	200	0.7	93.2
Mogami Denki Corporation	Yamagata pref.	2,483	1	0.1	5.4
Tohoku Pioneer EG Corporation	Yamagata pref.	21,701	163	0	4.6
Towada Pioneer Corporation	Aomori pref.	24,876	75	0.5	6.8
Pioneer Micro Technology Corporation	Yamanashi pref.	283,100	119	0.3	358
Pioneer Automotive Technologies, Inc. (PAT)	USA	32,545	2,033	0	3.3
Pioneer do Brasil Ltda.(PBL)	Brazil	32,820	797	0	34.3
Pioneer Yorkey do Brasil Ltda. (PYB)	Brazil	24,121	165	0	6
Pioneer Technology (Malaysia) Sdn. Bhd.(MPT)	Malaysia	74,572	44	0	41
Pioneer Manufacturing (Thailand) Co., Ltd. (PTM)	Thailand	181,053	756	0	153.4
Tohoku Pioneer (Thailand) Co., Ltd. (TPT)	Thailand	60,041	2,710	0	53.8
Tohoku Pioneer (Vietnam) Co., Ltd.(TPV)	Vietnam	53,174	940	0	30.8
Shanghai Pioneer Speakers Co., Ltd. (SPS)	China	113,340	1,292	0	75.8
Pioneer Technology (Shanghai) Co., Ltd. (PSG)	China	151,729	266	39	67.5
Pioneer Electronics (Shanghai Export Zone) Co. Ltd. (PGE)	China	107,539	299	46.6	28.6
Pioneer Technology (Dongguan) Co., Ltd. (PTD)	China	111,302	898	0	334.1
Dongguan Monetech Electronic Co., Ltd. (MND)	China	21,999	262	0	49.6
Mogami Dongguan Electronics Co.,Ltd. (MDE)	China	19,552	469	0.6	303.6
Pioneer Sintai (Donguan) Optical Co.,Ltd.(PSD)	China	574	0	0	2.5

\* PRTR substances and VOC (20 substances of VOC electrical and electronic industry-defined)



Site name	District	Energy consumption (GJ)	Waste (tonnes)	Chemical substances* emissions (tonnes)	Waste use ( × 10 <sup>3</sup> m <sup>3</sup> )
FY2014					
Pioneer Corporation Headquarters	Kanagawa pref.	61,499	256	0	27.4
Pioneer Corporation Kawagoe plant	Saitama pref.	111,198	549	8.5	43.4
Pioneer FA corporation	Saitama pref.	4,507	7	0	1.3
Pioneer Fintech Corporation	Saitama pref.	12,279	42	2.4	1.7
Tohoku Pioneer Corporation	Yamagata pref.	214,244	302	0.8	92.6
Mogami Denki Corporation	Yamagata pref.	2,527	2	0.2	5.4
Tohoku Pioneer EG Corporation	Yamagata pref.	21,419	121	0	5.2
Towada Pioneer Corporation	Aomori pref.	26,331	107	0.6	8.4
Pioneer Micro Technology Corporation	Yamanashi pref.	263,575	103	0.1	340.3
Pioneer Automotive Technologies, Inc. (PAT)	USA	45,906	61	0	3.3
Pioneer do Brasil Ltda.(PBL)	Brazil	33,026	534	0	35
Pioneer Yorkey do Brasil Ltda. (PYB)	Brazil	18,505	147	0	3
Pioneer Technology (Malaysia) Sdn. Bhd.(MPT)	Malaysia	100,591	2	0	51.7
Pioneer Manufacturing (Thailand) Co., Ltd. (PTM)	Thailand	163,331	798	0	152.8
Tohoku Pioneer (Thailand) Co., Ltd. (TPT)	Thailand	52,948	2,952	0	45.4
Tohoku Pioneer (Vietnam) Co., Ltd.(TPV)	Vietnam	57,954	975	0	35.1
Shanghai Pioneer Speakers Co., Ltd. (SPS)	China	87,220	1,794	0	98
Pioneer Technology (Shanghai) Co., Ltd. (PSG)	China	145,131	247	39	65.9
Pioneer Electronics (Shanghai Export Zone) Co. Ltd. (PGE)	China	126,346	355	46.6	37.1
Pioneer Technology (Dongguan) Co., Ltd. (PTD)	China	112,795	945	0	320.2
Dongguan Monetech Electronic Co., Ltd. (MND)	China	21,198	324	0	56.5
Mogami Dongguan Electronics Co.,Ltd. (MDE)	China	16,492	564	0.6	344.6
Pioneer Sintai (Dongguan) Optical Co.,Ltd.(PSD)	China	588	0	0	3.3
FY2013					
Pioneer Corporation Headquarters	Kanagawa pref.	1,750	281	0	30.6
Pioneer Corporation Kawagoe plant	Saitama pref.	2,959	441	11	45.3
Pioneer FA corporation	Saitama pref.	126	10	0	1.3
Pioneer Fintech Corporation	Saitama pref.	342	46	2.2	1.8
Tohoku Pioneer Corporation	Yamagata pref.	5,414	273	1	16
Mogami Denki Corporation	Yamagata pref.	69	208	0.3	5.9
Tohoku Pioneer EG Corporation	Yamagata pref.	539	141	0	4.7
Towada Pioneer Corporation	Aomori pref.	784	87	0	9.7
Pioneer Micro Technology Corporation	Yamanashi pref.	7,294	82	0.1	372
Pioneer Automotive Technologies, Inc. (PAT)	USA	746	2,369	0	3.8
Pioneer do Brasil Ltda.(PBL)	Brazil	917	620	0	34.2
Pioneer Yorkey do Brasil Ltda. (PYB)	Brazil	315	122	0	2.5
Pioneer Technology (Malaysia) Sdn. Bhd.(MPT)	Malaysia	3,034	4	0	67.7
Pioneer Manufacturing (Thailand) Co., Ltd. (PTM)	Thailand	6,419	576	0	185
Tohoku Pioneer (Thailand) Co., Ltd. (TPT)	Thailand	993	2,457	0	43.4
Tohoku Pioneer (Vietnam) Co., Ltd.(TPV)	Vietnam	1,464	621	0	35.6
Shanghai Pioneer Speakers Co., Ltd. (SPS)	China	2,301	2,428	0	80.9
Pioneer Technology (Shanghai) Co., Ltd. (PSG)	China	3,416	323	33.6	52.4
Pioneer Electronics (Shanghai Export Zone) Co. Ltd. (PGE)	China	2,609	394	41.7	30.6
Pioneer Technology (Dongguan) Co., Ltd. (PTD)	China	3,090	965	0	373.6
Dongguan Monetech Electronic Co., Ltd. (MND)	China	574	344	0	59.6
Mogami Dongguan Electronics Co.,Ltd. (MDE)	China	431	818	18.9	270.5
Pioneer Sintai (Dongguan) Optical Co.,Ltd.(PSD)	China	16	0.1	0.6	7.6

\* PRTR substances and VOC (20 substances of VOC electrical and electronic industry-defined)

## Scope of Data

### Period covered

The period covered by the data is FY2012(April 2012–March2013)–FY2016 (April 2015–March 2016), but whenever possible, the latest events have been included even if outside this period. Expansion of the range of the data and scrutiny of the figures has caused some changes from the figures released last year. There may be some discrepancies between subtotals and totals due to rounding off.

### Organization covered

The scope of this data is as follows. (Site name is as of March in 2016.) Activities other than the following are also reported.

#### Japan

Pioneer Corporation  
Headquarters  
Kawagoe Plant  
East Japan Logistics Center  
Tohoku Pioneer Corporation  
Headquarters  
Yonezawa Plant  
Mogami Denki Corporation  
Tohoku Pioneer EG Corporation  
Pioneer Micro Technology Corporation

Towada Pioneer Corporation  
Pioneer FA Corporation  
Pioneer Service Network Corporation  
World Parts Center / Repair Technical Center  
Piotec, Inc.  
Pioneer System Technologies Corporation  
Pioneer Finetech Corporation  
Increment P Corporation  
Headquarters  
Tohoku Design Center

#### THE AMERICAS

##### U.S.A.

Pioneer North America, Inc. (PNA)  
Pioneer Automotive Technologies, Inc. (PAT)

##### BRAZIL

Pioneer do Brasil Ltda.(PBL)  
Pioneer Yorkey do Brasil Ltda. (PYB)

##### CANADA

Pioneer Electronics of Canada, Inc. (POC)

#### EUROPE

##### BELGIUM

Pioneer Europe NV (PEE)

#### ASIA & OCEANIA

##### SINGAPORE

Pioneer Electronics Asiacentre Pte. Ltd. (PAC)

##### MALAYSIA

Pioneer Technology (Malaysia) Sdn. Bhd. (MPT)

##### THAILAND

Pioneer Manufacturing (Thailand) Co., Ltd. (PTM)  
Tohoku Pioneer (Thailand) Co., Ltd. (TPT)

##### VIETNAM

Tohoku Pioneer (Vietnam) Co., Ltd.(TPV)

##### AUSTRALIA

Pioneer Electronics Australia Pty. Ltd.(PTY)

##### CHINA

Pioneer China Holding Co., Ltd. (PCH)  
Pioneer Technology (Dongguan) Co., Ltd.(PTD)  
Pioneer Technology (Shanghai) Co., Ltd.(PSG)  
Pioneer Electronics (Shanghai Export Zone) Co. Ltd. (PGE)  
Pioneer (HK) Ltd.(PHK)  
Dongguan Monetech Electronic Co., Ltd.(MND)  
Shanghai Pioneer Speakers Co., Ltd.(SPS)  
Mogami Dongguan Electronics Co.,Ltd.(MDE)  
Pioneer Sintai (Dongguan) Optical Co.,Ltd.(PSD)