

Pioneer Group Environmental Data 2020

## ■ Targets, Plans and Performance

Category	Issue	Target	Numerical Goal	FY2016	FY2017	FY2018	FY2019	FY2020	Self assessment FY2020	Unit
Targets	Prevention of Global Warming	CO2 equivalent greenhouse gas emission Japan:12% reduction fromFY2010 to FY2021(Gross emission)	974	758	743	740	677	620	○ Achieved 36% reduction	terajoule
		CO2 equivalent greenhouse gas emission Japan and overseas:10% reduction fromFY2010 to FY2021 (emissions per unit of sales amount)	0.271	0.196	0.221	0.22	0.22	0.19	○ Achieved 30% reduction	terajoule
	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	2.802	2.936	3.027	2.26	2.485	○ Achieved	tonnes
Controls	Prevention of Global Warming	Exhaust of five GHG(Five gases except CO2) Worldwide : maintaining FY2014 level	2.8	1.4	1.6	2.1	2.4	1.8	○ Achieved	1,000 tonnes CO <sub>2</sub>
		Management of the energy accompanying transportation of products in Japan:Check of less than 30 mega-tonne-kilometers	3,000	1,064	1,508	1,691	1,745	1,186	○ Achieved	10,000 tonne-kilometers
	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 : 99.0	Japan : 99.9 Overseas : 99.3	Japan : 99.8 Overseas : 99.3	Japan : 99.7 Overseas : 99.0	Japan : 99.7 Overseas : 99.0	Japan:99.8 Overseas:99.3	○ Achieved	%
		Management of the amount of the water resources used Worldwide : maintaining FY2014 level	1,836	1,667	1,508	1,261	1,100	970	○ Achieved keep numerical Goal 12%reduction from FY2019result	1,000 m <sup>3</sup>
	Management of chemical substances	Management of the amount of office paper purchase Worldwide : maintaining FY2014 level	2,860	2,080	1,920	1,850	1,380	1,397	○ Achieved	10,000 sheet
		Management of emissions of PRTR chemical substances VOCs※2 Worldwide maintaining FY2014 level	136	119	57	15 <sup>※4</sup>	19 <sup>※4</sup>	15 <sup>※4</sup>	- ※3	tonnes
	Management of emissions of SOx,NOx, and dust Worldwide : maintaining FY2014 level	Sox 11 Nox15 Dust 0.3	Sox 0.9 Nox4.1 Dust 0.2	Sox 1.1 Nox4.1 Dust 0.2	Sox 1.2 <sup>※4</sup> Nox 6.0 <sup>※4</sup> Dust 0.2 <sup>※4</sup>	Sox 1.0 <sup>※4</sup> Nox 2.8 <sup>※4</sup> Dust 0.08 <sup>※4</sup>	Sox 1.0 <sup>※4</sup> Nox 2.8 <sup>※4</sup> Dust 0.08 <sup>※4</sup>	○ Achieved	tonnes	

※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.

※3 Self-evaluation standards (broad estimates):○---Achieved the target /△--- Slightly did not reach the target achievement / ×---Target was not achieved /-----N/A

※4 Japan Data Only

## ■ Input and output

### Input Amount of resources required for business activities

		FY2016	FY2017	FY2018	FY2019	FY2020	Unit
Procurement	Resources	7.3	6.6	6.0	4.0	3.9	10,000 tonnes
	Total energy	1,611	1,536	1,488	1,363	1,160	terajoule
Planning, design, production	Water consumption	167	151	126	110.00	97	10,000 m <sup>3</sup>
	Chemical substances handled	161	58	64	48 <sup>※1</sup>	36 <sup>※1</sup>	tonnes
	Office paper	2,090	1,920	1,850	1,382	1,397	10,000 sheets
Transportation	Goods Transported	5.9	5.5	4.9	3.2	3.1	10,000 tonnes
Service	Total energy	6.5	8.1	8.0	9.5	6.0	terajoule
	Water consumption	876	876	876	876	594	m <sup>3</sup>

※1 Japan Data Only

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

		FY2016	FY2017	FY2018	FY2019	FY2020	Unit
Planning, design, production	Greenhouse gases discharged	9.0	8.6	8.5	7.6	6.1	10,000 tonnes CO <sub>2</sub>
	Waste generated	1.2	1.1	1.1	0.8	0.66	10,000 tonnes
	Amount recycled	1.2	1.1	1.1	0.7	0.65	10,000 tonnes
	Waste water	147	126	110	92	85	10,000 m <sup>3</sup>
	Waste chemical substances	134	122	14	19 <sup>※1</sup>	15 <sup>※1</sup>	tonnes
	SOx	0.9	1.1	1.2	1.0	1.0	tonnes
	NOx	4.1	13.1	6.0	2.8	2.8	tonnes
Transportation	CO <sub>2</sub> (in Japan)	2.3	3.5	3.3	3.4	2.3	1,000 tonnes CO <sub>2</sub>
Used by customer	Recycled packaging materials (in Japan)	140	105	102	131	121	tonnes
Service	Greenhouse gases discharged	335	394	388	455	281	tonnes CO <sub>2</sub>
	Waste generated	182	121	103	88	249	tonnes
	Amount recycled	181	121	103	88	249	tonnes
	Waste water	876	876	876	976	594	m <sup>3</sup>

※1 Japan Data Only

## ■ Global Warming Prevention Activities

### Greenhouse gases emissions

(Unit : 1,000 tonnes CO<sub>2</sub>)

	Category	FY2016	FY2017	FY2018	FY2019	FY2020
Japan	Scope 1	5	6	6	4	3
	Scope 2	33	34	34	31	24
	Scope 3	0	0	0	0	0
	PFC,HFC,etc	1	2	2	2	2
	Total	40	42	42	37	27
Overseas	Scope 1	2	2	1	5	1
	Scope 2	47	44	42	36	31
	Scope 3	1	1	1	1	0
	PFC,HFC,etc	0	0	0	0	0
	Total	50	46	43	37	32

### Energy consumption

(Unit : terajoule)

	Category	FY2016	FY2017	FY2018	FY2019	FY2020
Japan	Electricity	674	642	637	604	485
	Fuel	39	53	48	28	18
	Gas	44	48	47	41	37
	Cold water	-	8	8	7	4
	Total	759	743	740	680	544
Overseas	Electricity	827	755	729	655	602
	Fuel	15	21	18	15	9
	Gas	12	16	10	10	11
	Total	853	792	757	680	627

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

(Unit : 1,000 tonnes CO<sub>2</sub>e)

	内訳	FY2016	FY2017	FY2018	FY2019	FY2020
Japan	Reduction of Non-Energy-Derived Greenhouse	1.9	1.6	2.0	2.4	1.8

※ This data includes CO<sub>2</sub>, CHCO<sub>4</sub>, HFC, PFC, N<sub>2</sub>O, SF<sub>6</sub>, HFE, NF<sub>3</sub>

### Changes in CO<sub>2</sub> emissions by domestic products transportation

	Category	FY2016	FY2017	FY2018	FY2019	FY2020	Unit
Japan	Basic unit <sup>※1</sup>	4.35	9.16	9.03	9.7	7.3	tonnes-CO <sub>2</sub> /billion JPY
	Total amount	2,256	3,543	3,301	3,369	2,332	tonnes CO <sub>2</sub>

※1 Basic unit =CO<sub>2</sub> emissions (total amount) / sales

### CO<sub>2</sub> reduction by modal shift

(Unit : tonnes CO<sub>2</sub>)

	Category	FY2016	FY2017	FY2018	FY2019	FY2020
Japan	CO <sub>2</sub> reduction by modal shift	203.0	39.6	73.0	113.0	90.6

### Transition of office paper purchases

(Unit : million sheets)

	Category	FY2016	FY2017	FY2018	FY2019	FY2020
Japan	Green Purchasing	10.4	10.5	10.3	7.5	6.2
Overseas	Activities	10.5	8.6	8.2	6.3	7.7

## ■ Reduction in Waste and Valuables

### Transition of generation amounts of waste and valuables

(Unit : tonnes)

	Category	FY2016	FY2017	FY2018	FY2019	FY2020
Japan	Amount of waste and valuables generated	2,135	1,812	2,045	2,013	1,528
Overseas		10,462	9,543	9,017	5,836	6,362

### Transition of recycling rate

(Unit : %)

	Category	FY2016	FY2017	FY2018	FY2019	FY2020
Japan	Recycling rate	99.9	99.8	99.7	100.0	99.8
Overseas		99.3	99.3	99	89.1	99.3

### Breakdown of waste and valuables

(Unit : %)

Japan	FY2016	FY2017	FY2018	FY2019	FY2020
Sludge	3.6	4.8	4.1	5.0	9.8
Waste oil	2.1	3.1	2.3	2.2	2.0
Waste acids	0.0	0.0	0.0	0.0	0.0
Waste alkali	0.3	0.3	0.5	0.3	0.2
Waste Plastics and rubber	22.0	26.5	26.3	23.0	17.4
Waste paper	35.7	40.2	37.1	42.3	40.5
Wood waste	3.6	3.1	3.2	2.2	1.0
Waste textile	0.0	0.0	0.0	0.0	0.0
Garbage	2.7	2.4	1.7	1.7	1.3
Waste metals	29.0	18.7	23.4	18.9	27.3
Glass and pottery waste	1.0	0.9	1.3	0.0	0.4

(Unit : %)

Overseas	FY2016	FY2017	FY2018	FY2019	FY2020
Waste paper	37.6	39.5	42.9	37.0	43.4
Waste metals	28.4	26.9	25.2	26.1	19.9
Garbage	10.7	11.1	10.4	9.3	6.2
Waste Plastics and rubber	3.9	3.7	4.4	6.9	7.8
Wood waste	2.9	2.3	2.5	1.5	2.3
Sludge	0.4	0.4	0.4	0.7	0.5
Waste acids and alkali	0.6	0.4	0.3	0.3	0.5
Waste oil	0.2	0.1	0.1	0.2	0.1
Glass and pottery waste	0.3	0.3	0.3	0.3	0.2
General waste from dormitories	5.3	4.4	4.1	5.8	3.7
Other	9.8	10.8	9.4	11.8	15.4

## ■ Management of Chemical Substances

### Trends in VOC emissions

(Unit : tonnes)

	Category	FY2016	FY2017	FY2018	FY2019	FY2020
Japan	Trends in VOC emissions	48.0	36.0	14.0	18.0	15.0
Overseas		86.0	86.0	— <sup>※1</sup>	— <sup>※1</sup>	— <sup>※1</sup>

※1 No data

### Trends in PRTR chemical substances handling and emissions

(Unit : tonnes)

	Category	FY2016	FY2017	FY2018	FY2019	FY2020
Japan	Volume handled	24.0	26.0	27.0	15.0	13.0
	Volume emitted	3.3	1.0	1.0	0.8	0.6

※ Japan Data Only

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

(Unit : tonnes)

	Substance	Volume handled	Emissions			Transferred		Transferred in the products	Volume removed or disposed	Volume recycled	
			Volume emitted into atmosphere	Volume emitted into atmosphere	Volume emitted to soil	Volume transferred as waste	Volume transferred to sewers				
Japan	FY2020	Methylnaphthalen <sup>※1</sup>	4.8	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.0
		Hydrogen Fluoride and its salt	3.7	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0
		Toluene	2.6	0.5	0.0	0.0	2.0	0.0	0.1	0.0	0.0
		1,2,4-trimethyl benzene	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
		Xylene	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
		2-ethoxyethyl acetate <sup>※2</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		<b>Total</b>	<b>11.4</b>	<b>0.5</b>	<b>0.0</b>	<b>0.0</b>	<b>2.0</b>	<b>0.0</b>	<b>5.2</b>	<b>3.7</b>	<b>0.0</b>
	FY2019	Methylnaphthalen <sup>※1</sup>	5.6	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0
		Hydrogen Fluoride and its salt	4.5	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0
		Toluene	2.9	0.6	0.0	0.0	2.1	0.0	0.2	0.0	0.0
		1,2,4-trimethyl benzene	0.5	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
		Xylene	0.5	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
		2-ethoxyethyl acetate <sup>※2</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		<b>Total</b>	<b>13.8</b>	<b>0.7</b>	<b>0.0</b>	<b>0.0</b>	<b>2.1</b>	<b>0.0</b>	<b>6.6</b>	<b>4.5</b>	<b>0.0</b>
	FY2018	Methylnaphthalen <sup>※1</sup>	11.4	0.1	0.0	0.0	0.0	0.0	11.4	0.0	0.0
		Hydrogen Fluoride and its salt	3.6	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0
		Toluene	3.1	0.6	0.0	0.0	2.5	0.0	0.0	0.0	0.0
		1,2,4-trimethyl benzene	2.9	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0
		Xylene	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		2-ethoxyethyl acetate <sup>※2</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		<b>Total</b>	<b>21.1</b>	<b>0.7</b>	<b>0.0</b>	<b>0.0</b>	<b>2.5</b>	<b>0.0</b>	<b>14.3</b>	<b>3.6</b>	<b>0.0</b>
	FY2017	Methylnaphthalen <sup>※1</sup>	12.1	0.1	0.0	0.0	0.0	0.0	12	0.0	0.0
		Hydrogen Fluoride and its salt	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Toluene	3.4	0.7	0.0	0.0	2.3	0.0	0.4	0.0	0.0
		1,2,4-trimethyl benzene	2.8	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0
		Xylene	2.5	0.1	0.0	0.0	0.0	0.0	2.4	0.0	0.0
		2-ethoxyethyl acetate <sup>※2</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		<b>Total</b>	<b>23.9</b>	<b>0.87</b>	<b>0.0</b>	<b>0.0</b>	<b>2.3</b>	<b>0.0</b>	<b>17.6</b>	<b>0.0</b>	<b>0.0</b>
	FY2016	Methylnaphthalen <sup>※1</sup>	14.9	0.1	0.0	0.0	0.0	0.0	14.8	0.0	0.0
		Hydrogen Fluoride and its salt	3.5	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0
		Toluene	3.4	1.7	0.0	0.0	1.4	0.0	0.3	0.0	0.0
		1,2,4-trimethyl benzene	2.6	0.0	0.0	0.1	0.0	0.0	2.5	0.0	0.0
		Xylene	2.3	0.1	0.0	0.0	0.0	0.0	2.2	0.0	0.0
		2-ethoxyethyl acetate <sup>※2</sup>	2.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	1.6
		<b>Total</b>	<b>28.6</b>	<b>2.3</b>	<b>0.0</b>	<b>0.0</b>	<b>1.5</b>	<b>0.0</b>	<b>19.8</b>	<b>3.5</b>	<b>1.6</b>

※1 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 2-ethoxyethyl acetate as like Ethylene glycol monoethyl ether acetate.

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

(Unit : tonnes)

	Category	FY2016	FY2017	FY2018	FY2019	FY2020
Japan	Dust	0.2	0.2	0.2	0.1	0.1
	NOx	4.0	13.0	6.0	2.8	3.2
	SOx	0.8	1.1	1.2	1.0	1.0
Overseas	Dust	0.0	0.0	0.0	0.0	— <sup>※1</sup>
	NOx	0.1	0.1	0.0	0.0	— <sup>※1</sup>
	SOx	0.1	0.1	0.0	0.0	— <sup>※1</sup>

※1 No data

## ■ Reduction of Water Usage and Discharged Water Amounts

### Water usage

(Unit : 1,000m)

	Category	FY2016	FY2017	FY2018	FY2019	FY2020
Japan	Industrial Water	66	70	71	59	49
	Underground water	423	422	400	347	316
	Public water supply	93	78	78	76	55
Overseas	Industrial Water	1	0	0	0	0
	Underground water	35	37	0	1	1
	Public water supply	1050	901	712	616	605

### Discharged water

(Unit : 1,000m)

	Category	FY2016	FY2017	FY2018	FY2019	FY2020
Japan	Public water	288	288	257	209	191
	Sewer	281	267	273	262	222
	Other	6	9	12	4	0
Overseas	Public water	73	70	139	72	88
	Sewer	823	631	417	374	349
	Other	0	0	0	0	0

## ■ Number of Environment-related Qualification (Japan Data Only)

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

(Unit : Number of people)

	Qualification	Legally required number	FY2016	FY2017	FY2018	FY2019	FY2020	
National qualification	Pollution-related	Pollution Control Manager	4	12	13	13	23	14
		Qualified Person for Energy Management	3	7	6	6	6	8
	Energy	Energy Manager and Energy Management	4	11	6	11	8	7
		Managers of the Specially Controlled Industrial waste	10	38	36	40	34	27
	Waste	Hazardous Materials Officers	10	147	155	188	155	165
		Specified High Pressure Gas Handling Supervisor	2	49	42	50	50	37
	Handling of hazardous materials	High Pressure Gas Handling Supervisor	0	2	2	2	2	2
		High Pressure Gas Handling Supervisor (Organic Solvents/Lead/Specified Chemical Substances)	19	295	314	323	320	252
		Toxic Substance Handling Officer	0	8	2	10	9	9
		Toxic Substance Handling Officer	0	8	2	10	9	9
Company qualification	Environmental management	Internal Environmental Auditor (Japan)	- <sup>※1</sup>	65	38	47	51	34
		Internal Environmental Auditor (Overseas)	- <sup>※1</sup>	156	190	188	160	157

※1 Not applicable

■ Environmental data of major offices

Site name	District	Energy consumption (Unit : Gigajour)	Waste (Unit : tonnes)	Chemical substances* emissions (Unit : tonnes)	Waste use (Unit : 1,000m)
<b>FY2020</b>					
Pioneer Corporation Headquarters	Tokyo	23,271	13	0.0	—※1
Pioneer Corporation Kawagoe plant	Saitama pref.	99,980	978	4.5	41.2
Pioneer Fintech Corporation	Saitama pref.	15,340	74	9.4	2.8
Tohoku Pioneer Corporation	Yamagata pref.	152,647	320	0.0	66.8
Mogami Denki Corporation	Yamagata pref.	1,836	1.0	0.0	3.2
Pioneer Micro Technology Corporation	Yamanashi pref.	218,614	175	0.8	304.4
Pioneer Automotive Technologies, Inc. (PAT)	USA	31,684	1,605	—※2	3.9
Pioneer Automotive de Mexico S.A.de C.V. (PMX)	Mexico	15,653	58	—※2	—※1
Pioneer do Brasil Ltda.(PBL)	Brazil	55,422	378	—※2	1.0
Pioneer Manufacturing (Thailand) Co., Ltd. (PTM)	Thailand	204,472	827	—※2	130.6
Tohoku Pioneer (Thailand) Co., Ltd. (TPT)	Thailand	48,828	1,290	—※2	39.8
Tohoku Pioneer (Vietnam) Co., Ltd.(TPV)	Vietnam	91,933	930	—※2	40.8
Pioneer Technology (Shanghai) Co., Ltd. (PSG)	China	94,575	196	—※2	33.7
Pioneer Technology (Dongguan) Co., Ltd. (PTD)	China	60,818	550	—※2	128.4
Mogami Dongguan Electronics Co.,Ltd. (MDE)	China	5,910	80	—※2	171.4
<b>FY2019</b>					
Pioneer Corporation Headquarters	Tokyo	28,807	87	0.1	—※1
Pioneer Corporation Kawagoe plant	Saitama pref.	112,355	974	6.0	48.6
Pioneer Fintech Corporation	Saitama pref.	16,430	75	9.4	2.3
Tohoku Pioneer Corporation	Yamagata pref.	196,342	179	0.0	81.6
Mogami Denki Corporation	Yamagata pref.	1,994	1.0	0.1	3.0
Tohoku Pioneer EG Corporation	Yamagata pref.	11,227	87	0.0	3.6
Towada Pioneer Corporation	Aomori pref.	26,754	406	1.7	6.0
Pioneer Micro Technology Corporation	Yamanashi pref.	257,959	97	1.2	332.4
Pioneer Automotive Technologies, Inc. (PAT)	USA	34,433	1,085	0.0	3.7
Pioneer Automotive de Mexico S.A.de C.V. (PMX)	Mexico	22,990	99	0.0	—※1
Pioneer do Brasil Ltda.(PBL)	Brazil	41,302	300	0.0	1.0
Pioneer Manufacturing (Thailand) Co., Ltd. (PTM)	Thailand	204,991	617	0.0	141.1
Tohoku Pioneer (Thailand) Co., Ltd. (TPT)	Thailand	50,118	1,694	0.0	48.3
Tohoku Pioneer (Vietnam) Co., Ltd.(TPV)	Vietnam	77,215	615	0.0	38.3
Shanghai Pioneer Speakers Co., Ltd. (SPS)	China	16,960	137	0.0	18.6
Pioneer Technology (Shanghai) Co., Ltd. (PSG)	China	144,727	201	0.0	38.4
Pioneer Technology (Dongguan) Co., Ltd. (PTD)	China	63,900	596	0.0	131.8
Dongguan Monotech Electronic Co., Ltd. (MND)	China	8,451	29	0.0	15.3
Mogami Dongguan Electronics Co.,Ltd. (MDE)	China	6,876	122	0.0	179.8
<b>FY2018</b>					
Pioneer Corporation Headquarters	Tokyo	37,060	1.7	0.1	—※1
Pioneer Corporation Kawagoe plant	Saitama pref.	117,477	707	7.1	48.4
Pioneer FA corporation	Saitama pref.	4,541	10	0.0	1.0
Pioneer Fintech Corporation	Saitama pref.	17,003	91	4.1	1.9
Tohoku Pioneer Corporation	Yamagata pref.	211,826	152	0.1	100.0
Mogami Denki Corporation	Yamagata pref.	2,220	1.6	0.0	3.0
Tohoku Pioneer EG Corporation	Yamagata pref.	27,148	434	0.0	6.2
Towada Pioneer Corporation	Aomori pref.	27,557	407	1.8	6.5
Pioneer Micro Technology Corporation	Yamanashi pref.	278,440	133	1.2	380.7
Pioneer Automotive Technologies, Inc. (PAT)	USA	32,524	1,421	0.0	4.0
Pioneer Automotive de Mexico S.A.de C.V. (PMX)	Mexico	11,240	96	0.0	—※1
Pioneer do Brasil Ltda.(PBL)	Brazil	32,018	1,043	0.0	1.0
Pioneer Technology (Malaysia) Sdn. Bhd.(MPT)	Malaysia	70,028	27	0.0	35.4
Pioneer Manufacturing (Thailand) Co., Ltd. (PTM)	Thailand	199,932	705	0.0	151.0
Tohoku Pioneer (Thailand) Co., Ltd. (TPT)	Thailand	58,440	2,185	0.0	50.3
Tohoku Pioneer (Vietnam) Co., Ltd.(TPV)	Vietnam	64,806	838	0.0	35.8
Shanghai Pioneer Speakers Co., Ltd. (SPS)	China	28,492	548	0.0	25.8
Pioneer Technology (Shanghai) Co., Ltd. (PSG)	China	170,433	229	0.0	40.3
Pioneer Technology (Dongguan) Co., Ltd. (PTD)	China	68,985	630	0.0	151.6
Dongguan Monotech Electronic Co., Ltd. (MND)	China	5,135	39	0.0	26.9
Mogami Dongguan Electronics Co.,Ltd. (MDE)	China	7,456	150	0.0	187.6
<b>FY2017</b>					
Pioneer Corporation Headquarters	Tokyo	30,905	2.0	0.0	—※1
Pioneer Corporation Kawagoe plant	Saitama pref.	117,442	686	8.9	47.8
Pioneer FA corporation	Saitama pref.	4,542	9.0	0.0	1.2
Pioneer Fintech Corporation	Saitama pref.	16,732	75	6.0	1.8
Tohoku Pioneer Corporation	Yamagata pref.	219,697	170	0.6	96.1
Mogami Denki Corporation	Yamagata pref.	2,470	1.0	0.0	2.7
Tohoku Pioneer EG Corporation	Yamagata pref.	26,411	197	0.0	4.8
Towada Pioneer Corporation	Aomori pref.	27,822	390	2.1	7.0
Pioneer Micro Technology Corporation	Yamanashi pref.	280,349	116	0.5	407.3
Pioneer Automotive Technologies, Inc. (PAT)	USA	32,546	1,436	0.0	3.5
Pioneer do Brasil Ltda.(PBL)	Brazil	32,018	773	0.0	37.2
Pioneer Technology (Malaysia) Sdn. Bhd.(MPT)	Malaysia	77,708	28	0.0	43.6
Pioneer Manufacturing (Thailand) Co., Ltd. (PTM)	Thailand	197,357	731	0.0	148.8
Tohoku Pioneer (Thailand) Co., Ltd. (TPT)	Thailand	62,640	2,583	0.0	52.2
Tohoku Pioneer (Vietnam) Co., Ltd.(TPV)	Vietnam	51,705	813	0.0	30.3
Shanghai Pioneer Speakers Co., Ltd. (SPS)	China	32,380	716	0.0	26.0
Pioneer Technology (Shanghai) Co., Ltd. (PSG)	China	176,783	292	39.0	55.4
Pioneer Technology (Dongguan) Co., Ltd. (PTD)	China	71,744	660	0.0	239.8
Dongguan Monotech Electronic Co., Ltd. (MND)	China	12,331	86	0.0	38.4
Mogami Dongguan Electronics Co.,Ltd. (MDE)	China	8,562	150	0.6	258.2

※1 There is no use of water at the exclusive possession part.

※2 No data

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

Site name	District	Energy consumption (Unit : Gigajour)	Waste (Unit : tonnes)	Chemical substances* emissions (Unit : tonnes)	Waste use (Unit : 1,000m)
FY2016					
Pioneer Corporation Headquarters	Kanaqawa pref.	58,774	381	0.0	20.3
Pioneer Corporation Kawajoe 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	0.1	3.0
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	0.0	3.5
Pioneer do Brasil Ltda.(PBL)	Brazil	32,708	786	0.0	34.2
Pioneer Technology (Malaysia) Sdn. Bhd.(MPT)	Malaysia	198,874	21	0.0	43.3
Pioneer Manufacturing (Thailand) Co., Ltd. (PTM)	Thailand	77,598	750	0.0	149.8
Tohoku Pioneer (Thailand) Co., Ltd. (TPT)	Thailand	66,364	2,837	0.0	52.6
Tohoku Pioneer (Vietnam) Co., Ltd.(TPV)	Vietnam	45,524	782	0.0	26.1
Shanghai Pioneer Speakers Co., Ltd. (SPS)	China	51,530	918	0.0	69.8
Pioneer Technology (Shanghai) Co., Ltd. (PSG)	China	171,835	346	39.0	59.3
Pioneer Technology (Dongguan) Co., Ltd. (PTD)	China	87,957	726	0.0	308.8
Dongguan Monetech Electronic Co., Ltd. (MND)	China	21,861	262	0.0	49.6
Mogami Dongguan Electronics Co.,Ltd. (MDE)	China	8,798	155	0.6	273.8

\* 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 FY2020(April 2019-March2020).  
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 2020.)  
For the scope of data aggregation reports before 2020, please refer to "Pioneer Group Environmental Data" for that year.

#### Japan

Pioneer Corporation	Pioneer Service Network Corporation
Headquarters	World Parts Center / Repair Technical Center
Kawagoe Plant	Pioneer System Technologies Corporation
Tohoku Pioneer Corporation	Pioneer Finetech Corporation
Headquarters	Increment P Corporation
Yonezawa Plant	
Mogami Denki Corporation	
Pioneer Micro Technology Corporation	

#### THE AMERICAS

##### U.S.A.

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

##### Brazil

Pioneer do Brasil Ltda. (PBL)

##### Mexico

Pioneer Automotive de Mexico S.A.de C.V. (PMX)

#### 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)

##### China

Pioneer China Holding Co., Ltd. (PCH)  
Pioneer Technology (Dongguan) Co., Ltd. (PTD)  
Pioneer Technology (Shanghai) Co., Ltd. (PSG)  
Pioneer (HK) Ltd. (PHK)  
Shanghai Pioneer Speakers Co., Ltd. (SPS)  
Mogami Dongguan Electronics Co.,Ltd. (MDE)