

Pioneer Group Environmental Data FY2024

| Period covered

The period covered by these data is FY2024 which is from April 2023 to March 2024.

There may be some discrepancies between totals and subtotals due to rounding.

| Organization covered

The following domestic and overseas subsidiaries in the Pioneer Group are covered. (Site name is as of March 2024.)

Japan : Pioneer Corporation Headquarters/Kawagoe Plant

Tohoku Pioneer Corporation

Soar Corporation

Mogami Denki Corporation

Pioneer Service Network Corporation World Parts Center

Pioneer System Technologies Corporation

Pioneer Finetech Corporation

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

Central and South

America : Pioneer do Brasil Ltda. (PBL)

Europe : Pioneer Europe NV (PEE)

Asia : Pioneer Electronics Asiacentre Pte. Ltd. (PAC)

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

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

Pioneer China Holding Co., Ltd. (PCH)

Pioneer Technology (Dongguan) Co., Ltd. (PTD)

Pioneer (HK) Ltd. (PHK)

Mogami Dongguan Electronics Co.,Ltd. (MDE)

Annotation is inserted in case the coverage is different.

| Environmental Data

■ Progress on Our Initiatives

Greenhouse Gas (hereafter, GHG) emissions reduction : 42% by FY2031 based on FY2021
(4.2% per year in a 1.5°C scenario)

	Item	Target	Base Year (FY2021)	Recent Year (FY2023)	Evaluation of Progress
Prevention of Global Warming	GHG emissions (Total of Scope 1 and 2)	42% reduction by FY31	— 44,953 t-CO ₂	17.2% reduction 37,207 t-CO ₂	Progress is on target (4.2%/year)

Note: Calculation methods and emissions factors based on the contents of guidance issued by the Ministry of the Environment in Japan are used.

Intensity of sales for waste and valuable : 3% reduction every year started from FY2011

	Item	Target	Base Year (FY2021)	Recent Year (FY2023)	Evaluation of Progress
Resource Conservation and Recycling	Amount of waste (Sales intensity)	3% reduction from previous year	3.871 t-CO ₂	0.904 t-CO ₂	Achieved (Target in recent year is below 2.604ton)

■ GHG Emissions (Scope 1 and 2)

Category	Unit	FY2021 (Base year)	FY2022	FY2023	FY2024
Scope 1	t-CO ₂	2,503	2,503	4,071	2,438
Scope 2 (Market base)		42,451	41,372	35,492	34,768
Total		44,953	43,874	39,563	37,207

Scope 1: Direct emissions occur from sources owned or controlled by the company.

Scope 2 : Indirect emissions from the generation of purchased energy.

GHGs cover all seven gases including carbon dioxide.

■Energy Consumption

Category		Unit	FY2021	FY2022	FY2023	FY2024
Electricity		MWh	90,149.9	76,860.2	66,447.0	65,159.4
Heavy Oil		k L	430.6	465.1	1,120.9	546.3
Diesel			101.9	110.5	56.0	7.5
Gasoline			221.6	78.6	79.1	201.6
Kerosene			17.9	21.1	8.5	7.0
LPG		ton	104.1	83.3	61.3	57.6
LNG			0.0	0.0	38.0	5.5
City Gas		m3	338.6	153.0	66.4	67.4
Cold Water		J	4,677.9	2,642.4	1,419.0	1,495.5
Hot Water			0.0	0.0	0.0	474.9
Conversion to Tera Joule						
Total		Tera J	948.5	803.3	721.6	600.1

■Water resources

Category		Unit	FY2021	FY2022	FY2023	FY2024
Usage	Industrial water	1000m3	167.5	14.7	54.0	49.7
	Underground water		50.5	54.3	11.9	6.9
	Water supply		425.5	413.5	402.9	283.6
	Total		643.5	482.5	468.8	340.2
Discharge	Public water	1000m3	157.6	4.1	42.5	18.2
	Sewerage systems		358.6	353.2	307.9	239.5
	Others		0.0	0.0	0.0	0.7
	Total		516.2	357.3	350.4	258.4

■Waste/Valuables and Recycling Ratio

Calculated for items defined by a law as industrial waste under Waste Disposal and Public Cleaning Law in Japan.

Category	Unit	FY2021	FY2022	FY2023	FY2024	
Cinder	ton	0.9	0.8	1.5	0.0	
Sludge		56.3	58.7	59.4	52.7	
Waste oil		20.4	18.9	16.3	15.8	
Waste acid/alkali		9.7	8.2	13.1	1.4	
Waste plastics		649.7	642.6	439.8	402.8	
Waste rubber		0.0	0.0	0.0	0.0	
Waste metal		1055.6	309.8	257.0	229.0	
Waste glass, concrete and ceramic		19.5	16.7	13.2	4.8	
Waste casting sand and slag		0.0	0.0	0.0	0.0	
Bricks		0.0	0.0	0.0	0.0	
Dust		0.0	0.0	0.0	0.0	
Waste paper		2774.1	2543.3	1038.3	959.2	
Waste wood		120.2	147.8	123.8	64.1	
Waste textile		0.6	0.1	0.7	0.0	
Unwanted animal solid matter		0.0	0.0	0.0	0.0	
Animal and plant residues		242.9	111.1	86.8	19.3	
Others		725.4	458.5	238.7	434.3	
Total			5675.2	4316.5	2288.9	2183.4
Items eligible for recycling			5647.9	4275.4	2278.4	2172.0
Recycling rate		%	99.52%	99.05%	99.54%	99.48%

PRTR	Unit	Substances	Handling amount	Emissions to		Transferred to		Transferred in the products	Volume removed or disposed	Volume recycled
				Atmosphere	Public water/soil	Waste	Sewers			
FY2022	ton	Methylnaphthalene	6.0	0.0	0.0	0.0	0.0	5.9	0.0	0.0
		Hydrogen Fluoride and its salt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Toluene	2.3	0.5	0.0	1.7	0.0	0.1	0.0	0.0
		1,2,4-trimethyl benzene	0.2	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	0.2	0.0	0.0
		2-ethoxyethyl acetate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FY2021		Methylnaphthalene	5.4	0.0	0.0	0.0	0.0	5.4	0.0	0.0
		Hydrogen Fluoride and its salt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Toluene	2.5	0.5	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	0.2	0.0	0.0
		Xylene	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0
		2-ethoxyethyl acetate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

* Subject to sites in Japan only

* Data of 0.1 tons or less are listed as zero.

* Methylnaphthalene is included in the distilled fuel for power generation.

Amount of one substance handled per business site exceeding 1 ton is counted.

■ Air Pollutant Emissions

Category	Unit	FY2021	FY2022	FY2023	FY2024
Dust	ton	0.1	0.1	0.1	0.1
NOx		2.1	3.4	23.2	5.3
SOx		1.1	1.0	1.4	0.9

* Subject to sites in Japan only

■ISO14001 Certification Status

Category		Unit	FY2021	FY2022	FY2023	FY2024
Sites	Domestic	Number	16	16	15	15
	Overseas		13	11	10	8
Employee Coverage	Global	%	95.1	95.1	93.5	93.6

* Employee coverage calculated as the ratio of the number of employees at ISO 14001 certified sites divided by the total number of employees.

■Environmental Data of Major Sites

FY2024	Region	Energy Consumption (Unit : Giga joule)	Waste and Valuables (Unit : ton)	Chemical Substances Emissions(Unit : ton)	Water Usage (Unit : 1000m3)
Pioneer Corporation Headquarter	Tokyo	4698	13.2	0.0	— ¹
Pioneer Corporation Kawagoe Plant	Saitama pref.	81071	621.6	3.7	18.1
Pioneer Finetech Corporation	Saitama pref.	11833	39.4	6.0	1.5
Tohoku Pioneer Corporation	Yamagata pref.	30126	54.6	0.0	8.6
Mogami Denki Corporation	Yamagata pref.	— ²	— ²	— ²	— ²
Soar Corporation	Yamagata pref.	102694	48.7	0.0	55.9
Pioneer Automotive Technologies, Inc.	USA	— ¹	— ¹	— ²	— ¹
Pioneer do Brasil Ltda.	Brazil	19964	207.8	— ²	— ²
Pioneer Manufacturing (Thailand) Co., Ltd.	Thailand	143271	— ²	— ²	85.4
Tohoku Pioneer (Vietnam) Co., Ltd.	Vietnam	133312	548.6	— ²	65.9
Pioneer Technology (Dongguan) Co., Ltd.	China	28643	118.9	— ²	36.8
Mogami Dongguan Electronics Co.,Ltd.	China	23538	76.6	— ²	66.5

FY2023	Region	Energy Consumption (Unit : Giga joule)	Waste and Valuables (Unit : ton)	Chemical Substances Emissions(Unit : ton)	Water Usage (Unit : 1000m3)
Pioneer Corporation Headquarter	Tokyo	9,039	6.0	0.0	— ¹
Pioneer Corporation Kawagoe Plant	Saitama pref.	88,594	665.0	4.5	15.9
Pioneer Finetech Corporation	Saitama pref.	12,621	46.0	6.5	1.4
Tohoku Pioneer Corporation	Yamagata pref.	32,615	84.0	0.0	9.6
Mogami Denki Corporation	Yamagata pref.	1,069	3.0	0.2	1.4
Soar Corporation	Yamagata pref.	119,280	108.0	0.1	62.6
Pioneer Automotive Technologies, Inc.	USA	14,377	— ¹	— ²	— ¹
Pioneer do Brasil Ltda.	Brazil	36,173	108.0	— ²	0.0
Pioneer Manufacturing (Thailand) Co., Ltd.	Thailand	163,645	500.0	— ²	88.6
Tohoku Pioneer (Vietnam) Co., Ltd.	Vietnam	76,127	86.0	— ²	122.0
Pioneer Technology (Dongguan) Co., Ltd.	China	34,077	143.0	— ²	52.3
Mogami Dongguan Electronics Co.,Ltd.	China	5,449	100.0	— ²	113.7
FY2022	Region	Energy Consumption (Unit : Giga joule)	Waste and Valuables (Unit : ton)	Chemical Substances Emissions(Unit : ton)	Water Usage (Unit : 1000m3)
Pioneer Corporation Headquarter	Tokyo	12,409	49.0	0.0	— ¹
Pioneer Corporation Kawagoe Plant	Saitama pref.	84,706	950.0	3.4	25.2
Pioneer Finetech Corporation	Saitama pref.	16,190	77.0	7.7	1.7
Tohoku Pioneer Corporation	Yamagata pref.	140,927	78.0	0.0	73.5
Mogami Denki Corporation	Yamagata pref.	1,357	1.0	0.1	1.8
Pioneer Automotive Technologies, Inc.	USA	26,255	1,416.0	— ²	4.3
Pioneer do Brasil Ltda.	Brazil	36,271	135.0	— ²	0.0
Pioneer Manufacturing (Thailand) Co., Ltd.	Thailand	186,897	602.0	— ²	104.6
Tohoku Pioneer (Vietnam) Co., Ltd.	Vietnam	93,782	62.0	— ²	38.5
Pioneer Technology (Dongguan) Co., Ltd.	China	49,813	347.0	— ²	88.5
Mogami Dongguan Electronics Co.,Ltd.	China	5,404	78.0	— ²	139.7

FY2021	Region	Energy Consumption (Unit : Giga joule)	Waste and Valuables (Unit : ton)	Chemical Substances Emissions(Unit : ton)	Water Usage (Unit : 1000m3)
Pioneer Corporation Headquarter	Tokyo	17,217	3.0	0.0	— ¹
Pioneer Corporation Kawagoe Plant	Saitama pref.	87,195	892.0	2.0	25.6
Pioneer Finetech Corporation	Saitama pref.	15,917	65.0	10.6	2.0
Tohoku Pioneer Corporation	Yamagata pref.	146,182	93.0	0.0	70.0
Mogami Denki Corporation	Yamagata pref.	1,419	2.0	0.1	2.3
Pioneer Automotive Technologies, Inc.	USA	27,176	1,498.0	— ²	4.9
Pioneer do Brasil Ltda.	Brazil	48,160	227.0	— ²	0.0
Pioneer Manufacturing (Thailand) Co., Ltd.	Thailand	182,216	613.0	— ²	88.9
Tohoku Pioneer (Thailand) Co., Ltd.	Thailand	36,685	813.0	— ²	24.7
Tohoku Pioneer (Vietnam) Co., Ltd.	Vietnam	82,295	566.0	— ²	36.3
Pioneer Technology (Dongguan) Co., Ltd.	China	55,690	501.0	— ²	95.6
Mogami Dongguan Electronics Co.,Ltd.	China	4,517	107.0	— ²	136.8

1. Data for our exclusively-owned area is not obtained due to the office building.

2. No data available.