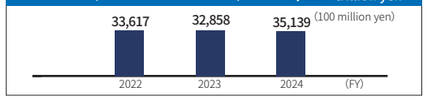
Overview of Environmental Impacts

Inputs

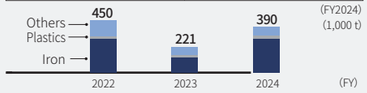
Materials

Net sales (consolidated basis) 3,5139 trillion yen

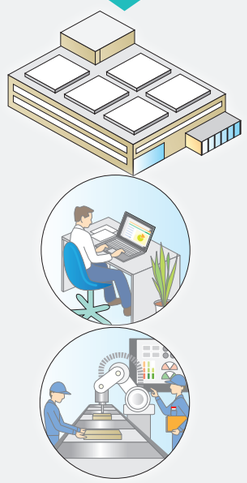


Resources/Raw materials*1 390,000 t

Iron	296,000 t	Others	73,000 t
Plastics	21,000 t		



R&D, design, and manufacturing

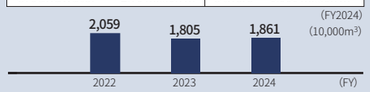


Energy 17,251 TJ*2

Electricity	15,842 TJ	LPG	84 TJ
Renewable energy	4 TJ	Light oil	8 TJ
City gas	1,198 TJ	Biofuels	0 TJ
Bunker A heavy oil	18 TJ	Others	97 TJ

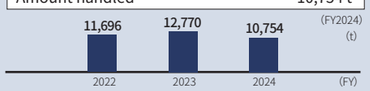
Water 18.61 million m³

Industrial water	13.62 million m³	City water	2.29 million m³
Groundwater	2.70 million m³	Others	0.006 million m³



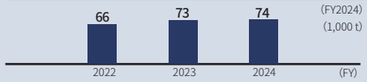
Chemical substances

Amount handled	10,754 t

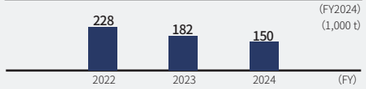


Waste

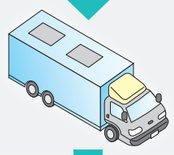
Volume of end-of-life products recycled	74,000 t



Major products shipped 150,000 t



Logistics and sales



Energy (domestic logistics) 14,103 kℓ

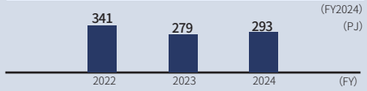
Gasoline	114 kℓ
Light oil	13,988 kℓ

* Trucks only

Use

Energy

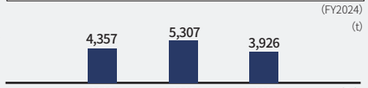
Electricity (Excl. power generation equipment)	293 PJ*2



Collection and recycling

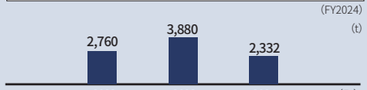
End-of-life products

Collection amount	3,926 t



End-of-life products

Weight recycled	2,332 t



Resource Recycling

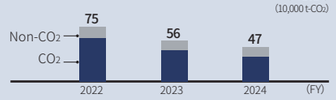
Resource Recycling

Emissions

Total GHGs*3 0.47 million t-CO_2

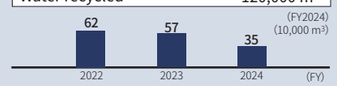
CO_2	345,000 t-CO_2	・SF_6	53,000 t-CO_2
Non-CO_2	125,000 t-CO_2	・HFC	6,000 t-CO_2
・PFC	56,000 t-CO_2	・Others	10,000 t-CO_2

(Value from non-fossil certificates: 0.508 million t-CO_2)



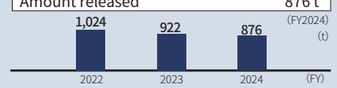
Water reused and recycled 0.35 million m³

Water reused	230,000 m³
Water recycled	120,000 m³



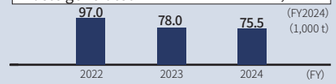
Chemical substances (atmosphere)

Amount released	876 t



Waste

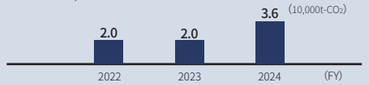
Waste generated	75,500 t



GHGs from transport (domestic logistics)

CO_2	36,000 t-CO_2

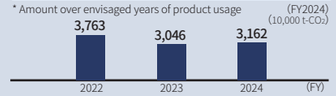
* Incl. ships and aircraft



GHG emissions during product use

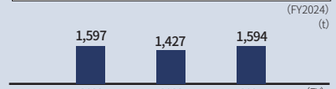
CO_2 (Excl. power generation equipment)	31.62 million t-CO_2

* Amount over envisaged years of product usage



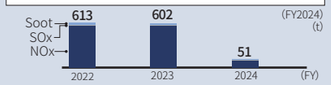
End-of-life products

Amount disposed after recycling	1,594 t



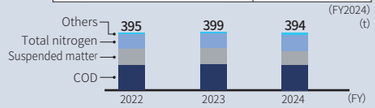
Emissions to the atmosphere

Soot	5 t
SOx	1 t
NOx	45 t



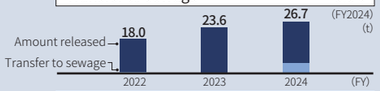
Emissions to the hydrosphere

Total wastewater	14.62 million m³	Total nitrogen	115 t
COD	173t	Others	12 t
Suspended matter	94 t		



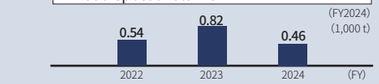
Chemical substances*4 (hydrosphere)

Amount released	21.2 t
Transfer to sewage	5.5 t



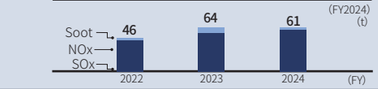
Waste

Final disposal volume	460 t



Emissions to atmosphere during transport

SOx	0.1 t
NOx	57 t
Soot	3 t



*1 Material inputs are calculated based on the Estimation Method for Material Inputs Using Input-Output Table (EMIOT), a method independently developed by Toshiba Group ("EMIOT": Estimation method for Material-inputs using Input-Output Table). EMIOT uses ratios of resources used per unit production, which are prepared based on the Input-Output Table, to calculate total material inputs. One distinctive feature of the method is that input-output analysis is applied only to the flow of resources from upstream to downstream. Another is that the volume of such resources by industrial sector is stored in a database. Using this method, it is possible to calculate weights of input resources by resource type from the data on procurement (monetary value) by resource category, which are gathered by materials procurement divisions. Therefore, data can be gathered not only on direct materials, but also indirect materials. Previously, it was difficult to totalize as resources the imported inputs that accompany the procurement of complex materials and service businesses. However, by using this method, it has become possible to grasp the amount of imported inputs by material category for such procured materials as well.

*2 TJ = 10^{12}J; PJ = 10^{15}J. J (Joule) is a unit of energy measuring mechanical work, heat, and electricity. One joule equals about 0.239 calories.

*3 The value after deducting emission reductions from non-fossil certificates. CO_2 emissions from electricity and city gas are calculated using emission coefficients published by the Greenhouse Gas Emissions Calculation, Reporting, and Publication System of Ministry of the Environment, Japan or emission coefficients provided by power and gas companies. Scope 2 emissions are calculated using a market-based approach in accordance with the GHG Protocol "Scope 2 Guidance."

*4 The volume of hydrogen fluoride and its water-soluble salt emitted into hydrosphere since FY2009 is calculated to be zero because hydrogen fluoride used becomes non-water-soluble salt through post-use treatment.