



FY2022 (ended March 2023) Environmental Data Book

Issued on March 27, 2024



Sumitomo Realty & Development

GHG Emissions

	Unit	FY2014	FY2020	FY2021	FY2022	
Total GHG Emissions (Scope 1 + Scope 2 + Scope 3)	Thousand t-CO ₂	5,940	4,917	4,851	4,937	✓
Scope 1 (Direct emissions)	Thousand t-CO ₂	33	41	44	44	✓
Scope 2 (Indirect emissions from energy use)	Thousand t-CO ₂	120	122	120	124	✓
Covered area (standardized coefficient – denominator of coefficient)	Thousand m ²	3,808	5,301	5,514	5,700	
Scope 1 + Scope 2 emission coefficient	t-CO ₂ /m ²	0.040	0.031	0.030	0.029	
Scope 3 (Other indirect emissions)	Thousand t-CO ₂	5,788	4,754	4,687	4,770	✓
1. Purchased goods and services	Thousand t-CO ₂	966	807	1,130	1,067	
2. Capital goods	Thousand t-CO ₂	118	462	289	752	
3. Fuel and energy-related activities (not included in Scope 1 or Scope 2)	Thousand t-CO ₂	22	28	28	28	
4. Upstream transportation and distribution	Thousand t-CO ₂	Not applicable (some are included in Category 1)				
5. Waste generated in operations	Thousand t-CO ₂	21	22	24	20	
6. Business travel	Thousand t-CO ₂	2	2	2	2	
7. Employee commuting	Thousand t-CO ₂	3	3	3	3	
8. Upstream leased assets	Thousand t-CO ₂	31	20	19	19	
9. Downstream transportation and distribution	Thousand t-CO ₂	71	71	107	111	
10. Processing of sold products	Thousand t-CO ₂	-				
11. Use of sold products	Thousand t-CO ₂	4,279	3,083	2,832	2,524	
12. End-of-life treatment of sold products	Thousand t-CO ₂	44	36	33	28	
13. Downstream leased assets	Thousand t-CO ₂	231	220	221	214	
14. Franchises	Thousand t-CO ₂	-				
15. Investments	Thousand t-CO ₂	-				

➤ Data reliability

In order to ensure the reliability of the values presented in the report, the Sumitomo Realty Group has received an independent third-party assurance from KPMG AZSA Sustainability Co., Ltd. regarding portions of the disclosed data. Specific fiscal years and data that have received such independent third-party assurance are indicated with a "✓." [➤ Independent Assurance Report](#)

➤ Boundary of data calculation

The GHG emissions presented above represent the absolute emissions, both direct and indirect, resulting from the business activities of the Sumitomo Realty Group including all of its domestic subsidiaries, based on the operational control approach under the GHG Protocol.

➤ Main sources of GHG emissions and calculation methods

		Main emission sources
Scope 1		Combustion of fuel and leakage of refrigerants at office buildings owned by the Group, combustion of gasoline by Group vehicles
Scope 2		Use of purchased electricity or heat by the office buildings owned by the Group
Scope 3	Category 1 Purchased goods and services	Emissions from the purchase of materials, etc. for use by the condominium business, custom home business, etc.
	Category 2 Capital goods	Emissions from the acquisition of fixed assets such as office buildings
	Category 11 Use of sold products	Emissions from the use by customers in the condominium business, custom home business, home full remodeling business, etc.
	Category 13 Downstream leased assets	Emissions from the use of electricity in tenant-lease areas of office buildings managed and operated by the Group

* The CO₂ emissions coefficients and energy conversion factors for Scope 1, Scope 2, and Scope 3 Categories 8 and 13 are those indicated in the Act on Promotion of Global Warming Countermeasures (List of Calculation Methods and Emissions Coefficients Used in Calculation, Reporting, and Publication Systems).

* Leakage of refrigerants included in Scope 1 was aggregated and calculated in accordance with the Fluorocarbon Emissions Control Act.

* Coefficients per unit of activity for Scope 3 were set based on the following materials.

The Ministry of the Environment's "Emissions Unit Values Database V3.3," the Sustainable Management Promotion Organization's "LCI Database IDEA version 2.3," the National Institute for Environmental Studies' "Environmental burden intensities based on the consumer's price," the Architectural Institute of Japan's "LCA Guidelines for Buildings," etc.

* For Scope 3 Category 11, for the figures up until FY2021, the annual emissions volume was calculated based on the LCA Guidelines for Buildings and the results of energy consumption calculations for units supplied in the past. Starting FY2022, for custom homes, in order to more accurately reflect the emission reduction effects of promoting ZEH (Net Zero Energy House) adoption, standard CO₂ emissions are determined by using the standard energy consumption figures from the web program designed for ZEH energy savings calculations. These figures are then multiplied by the energy-saving rate for each ZEH plan, the number of years of residency, and the number of recorded units, to calculate the CO₂ emissions amount.

Following this change in the calculation method, there is an increase of 112 thousand tons in emissions compared to those calculated using the previous method. The numbers of years of residency are taken from Yukio Komatsu's "Study of Average Building Lifespans" (2013). (New RC condominiums: 68 years; New wooden detached houses: 65 years)

* With regard to Scope 3 Categories 5 and 9, there were difficulties in determining figures for FY2014. Accordingly, for some data for this years, available values from other years were used instead, for calculations and disclosure.

* For common areas of rented properties owned by other companies, emissions related to energy use are included in Scope 3 Category 8 since the Company does not have the operational control.

Energy Consumption Volumes (Based on the Act on Rationalizing Energy Use)

	Unit	FY2019	FY2020	FY2021	FY2022
Covered area (standardized coefficient – denominator of coefficient)	Thousand m ²	3,824	3,946	3,902	4,169
Energy consumption	Thousand GJ	5,300	4,982	4,877	4,861
Energy consumption	Thousand kL	137	129	126	125
Energy consumption coefficient	kL/m ²	0.0358	0.0326	0.0322	0.0301

* The boundary of data collected for calculating energy consumption encompasses all the office buildings owned, managed, and used by the Sumitomo Realty & Development Co., Ltd. or leased to it as office, etc. for which report is required under the Act on Rationalizing Energy Use.

* The covered area was set to the total gross floor area, while factoring in tenant occupancy rates for each property.

CO₂ Emissions (Based on the Act on Rationalizing Energy Use)

	Unit	FY2019	FY2020	FY2021	FY2022
Covered area (standardized coefficient – denominator of coefficient)	Thousand m ²	3,824	3,946	3,902	4,169
CO ₂ emissions	t-CO ₂	255,102	230,939	226,529	224,944
CO ₂ emission coefficient	t-CO ₂ /m ²	0.0667	0.0585	0.0581	0.0540

* The boundary of data collected for calculating CO₂ emissions encompasses all the office buildings owned, managed, and used by the Sumitomo Realty & Development Co., Ltd. or leased to it as office, etc. for which report is required under the Act on Rationalizing Energy Use.

* The covered area was set to the total gross floor area, while factoring in tenant occupancy rates for each property.

DBJ Green Building Certification

	Unit	FY2019	FY2020	FY2021	FY2022
Number of certified properties	Buildings		26	27	54
Gross floor area (leasing assets owned by the Company)	Thousand tsubo		1,444	1,469	1,578
Gross floor area (certified properties)	Thousand tsubo		769	796	961
Percentage of certified area to total gross floor area	%		53%	54%	61%
Certification acquisition rate for completed large-scale new buildings	%		100%	100%	100%

* As Green Building Certification was not continuously acquired until FY2019, data for this period is not included.

* Data as of the end of each fiscal year.

* Leasing assets owned by the Company include floor areas of office buildings for leasing (excluding subleased properties), commercial facilities, rental apartments, etc.

Water Withdrawal

	Unit	FY2019	FY2020	FY2021	FY2022
Covered area (standardized coefficient – denominator of coefficient)	Thousand m ²	3,731	3,851	3,797	3,725
Water withdrawal	Thousand m ³	2,735	1,983	1,841	2,009
Water withdrawal coefficient	Thousand L/m ²	0.733	0.515	0.485	0.539

* The water withdrawal calculation boundary consists of office buildings owned and managed by Sumitomo Realty & Development Co., Ltd. for which reporting is required under the Act on Rationalizing Energy Use, and for which data can be acquired.

* All of the abovementioned withdrawals are from tap water. No withdrawals are from surface water, groundwater, external wastewater, or seawater.

* The covered area was set to the total gross floor area, while factoring in tenant occupancy rates for each property.

Wastewater

	Unit	FY2019	FY2020	FY2021	FY2022
Covered area (standardized coefficient – denominator of coefficient)	Thousand m ²	3,731	3,851	3,797	3,725
Wastewater	Thousand m ²	2,657	1,843	1,720	1,904
Wastewater coefficient	Thousand L/m ²	0.712	0.479	0.453	0.511

* The wastewater calculation boundary consists of office buildings owned and managed by Sumitomo Realty & Development Co., Ltd. for which reporting is required under the Act on Rationalizing Energy Use, and for which data can be acquired.

* All of the abovementioned wastewater is discharged through the sewer system to an external water treatment plant. No wastewater is discharged to marine waters, surface water, or groundwater.

* The covered area was set to the total gross floor area, while factoring in tenant occupancy rates for each property.

Waste Discharge and Recycled Waste Volumes

	Unit	FY2019	FY2020	FY2021	FY2022
Covered area (standardized coefficient – denominator of coefficient)	Thousand m ²	3,776	4,102	4,208	4,142
Total waste volume	t	17,922	15,016	18,549	16,502
Industrial waste	t	13,224	11,354	14,759	12,260
General waste	t	4,698	3,661	3,790	3,792
Waste discharge coefficient	t/m ²	0.0047	0.0037	0.0044	0.0039
Volume of recycled waste	t	13,128	10,389	12,458	11,104
Percentage of waste recycled	%	73.3%	69.2%	67.2%	69.2%

* The calculation of waste discharge and recycled waste boundary consists of leasing assets owned and managed by the Sumitomo Realty Group.

* Figures for volume of recycled waste include heat recovery and recycle through thermal recycling only if they are non-combustible materials.

* The data has been revised retroactively from "FY2020 (ended March 2021) Environmental Data Book," as the waste discharge calculation boundary was expanded to include retail facilities, hotels, and convenience stores, etc. operated by the Group.

* The covered area was set to the total gross floor area, while factoring in tenant occupancy rates for each property.