



# **FY2021 (ended March 2022) Environmental Data Book**

Issued on Feb 27, 2023



**Sumitomo Realty & Development**

## GHG Emissions

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

### ➤ 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	
<b>Scope 1</b>		Combustion of fuel and leakage of refrigerants at office buildings owned by the Group, combustion of gasoline by Group vehicles			
<b>Scope 2</b>		Use of purchased electricity or heat by the office buildings owned by the Group			
<b>Scope 3</b>	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 CO<sub>2</sub> 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 V3.2," 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, the annual emissions volume are calculated based on the LCA Guidelines for Buildings and the results of energy consumption calculations for units supplied in the past. Each value is multiplied by the number of years of residency and the number of recorded units for each housing structure and purpose, to determine the CO<sub>2</sub> emissions amount. 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
Covered area (standardized coefficient – denominator of coefficient)	Thousand m <sup>2</sup>	3,824	3,946	3,902
Energy consumption	Thousand GJ	5,300	4,982	4,877
Energy consumption	Thousand kL	137	129	126
Energy consumption coefficient	kL/m <sup>2</sup>	0.0358	0.0326	0.0322

\* 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.

## CO<sub>2</sub> Emissions (Based on the Act on Rationalizing Energy Use)

	Unit	FY2019	FY2020	FY2021
Covered area (standardized coefficient – denominator of coefficient)	Thousand m <sup>2</sup>	3,824	3,946	3,902
CO <sub>2</sub> emissions	t-CO <sub>2</sub>	255,102	230,939	226,529
CO <sub>2</sub> emission coefficient	t-CO <sub>2</sub> /m <sup>2</sup>	0.0667	0.0585	0.0581

\* The boundary of data collected for calculating CO<sub>2</sub> 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
Number of certified properties	Buildings		26	29
Gross floor area (leasing assets owned by the Company)	Thousand tsubo		1,444	1,469
Gross floor area (certified properties)	Thousand tsubo		769	809
Percentage of certified area to total gross floor area	%		53%	55%
Certification acquisition rate for completed large-scale new buildings	%		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
Covered area (standardized coefficient – denominator of coefficient)	Thousand m <sup>2</sup>	3,731	3,851	3,797
Water withdrawal	Thousand m <sup>3</sup>	2,735	1,983	1,841
Water withdrawal coefficient	Thousand L/m <sup>2</sup>	0.733	0.515	0.485

\* 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	
Covered area (standardized coefficient – denominator of coefficient)	Thousand m <sup>2</sup>	3,731	3,851	3,797	
Wastewater	Thousand m <sup>3</sup>	2,657	1,843	1,720	
Wastewater coefficient	Thousand L/m <sup>2</sup>	0.712	0.479	0.453	

\* 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	
Covered area (standardized coefficient – denominator of coefficient)	Thousand m <sup>2</sup>	3,776	4,102	4,208	
Total waste volume	t	17,922	15,016	18,549	
Industrial waste	t	13,224	11,354	14,759	
General waste	t	4,698	3,661	3,790	
Waste discharge coefficient	t/m <sup>2</sup>	0.0047	0.0037	0.0044	
Volume of recycled waste	t	13,128	10,389	12,458	
Percentage of waste recycled	%	73.3%	69.2%	67.2%	

\* 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.