

Calculation Method for Scope 1, 2, and 3 Emissions

● Scope 1 and 2

Category	Source of Emission Factors
Scope 1	<ul style="list-style-type: none"> Ministry of the Environment, Japan "Greenhouse Gas Emission Calculation and Reporting Manual (Ver 4.9)"
Scope 2 (Market-based)	<ul style="list-style-type: none"> Japan: Ministry of the Environment, Japan "List of Emission Factors by Electricity Providers" Adjusted emission factors Overseas: Emission factors by electricity providers
Scope 2 (Location-based)	<ul style="list-style-type: none"> Japan: Ministry of the Environment, Japan "List of Emission Factors by Electricity Providers" National average emission factors Overseas: IEA "CO2 Emissions from Fuel Combustion 2019" Country-specific emission factors

●Scope 3

Category		Calculation Method	Source of Emission Factors
1	Purchased Goods and Services	Purchase amount of main procurement materials × Emission factor	● Ministry of the Environment, Japan "Emission Factor Database for Calculating GHG Emissions Through Supply Chains (Ver 3.3)"
2	Capital Goods	Capital investment amount × Emission factor	● Ministry of the Environment, Japan "Emission Factor Database for Calculating GHG Emissions Through Supply Chains (Ver 3.3)"
3	Fuel and Energy-Related Activities Not Included in Scope 1 or 2	Fuel/electricity usage × Emission factor	● Sustainable Management Promotion Organization "LCI Database IDEA v2" Ministry of the Environment, Japan "Emission Factor Database for Calculating GHG Emissions Through Supply Chains (Ver 3.3)"
4	Upstream Transportation and Distribution	Transportation cost × Emission factor	● Ministry of the Environment, Japan "Emission Factor Database for Calculating GHG Emissions Through Supply Chains (Ver 3.3)"
5	Waste Generated in Operations	Waste disposal cost × Emission factor	● Ministry of the Environment, Japan "Emission Factor Database for Calculating GHG Emissions Through Supply Chains (Ver 3.3)"

Category		Calculation Method	Source of Emission Factors
6	Business Travel	Number of employees × Emission factor	● Ministry of the Environment, Japan "Emission Factor Database for Calculating GHG Emissions Through Supply Chains (Ver 3.3)"
7	Employee Commuting	Number of employees × Working days × Emission factor	● Ministry of the Environment, Japan "Emission Factor Database for Calculating GHG Emissions Through Supply Chains (Ver 3.3)"
8	Upstream Leased Assets	Not applicable - GHG emissions from the operation of leased assets rented by the company are included in Scope 1 and 2	-
9	Downstream Transportation and Distribution	Estimated from Category 4	● Ministry of the Environment, Japan "Emission Factor Database for Calculating GHG Emissions Through Supply Chains (Ver 3.3)"
10	Processing of Sold Products	Not applicable - Difficult to calculate as products are sold to set manufacturers and incorporated into various final products with diverse customer applications	-

Category		Calculation Method	Source of Emission Factors
11	Use of Sold Products	For energy use of sold products: <ul style="list-style-type: none"> Electricity: Sales quantity × Annual electricity consumption × Product lifetime × CO2 emission factor LPG: Sales quantity × Annual LPG consumption × Product lifetime × CO2 emission factor For refrigerant leakage from sold products: Sales quantity × Refrigerant filling amount × Annual leakage rate × Product lifetime × Global warming potential	<ul style="list-style-type: none"> IEA "CO2 Emissions from Fuel Combustion 2019" Greenhouse Gas Emission Calculation and Reporting Manual (Ver 4.9) (April 2023) Ministry of the Environment, Japan "Emission Factor Database for Calculating GHG Emissions Through Supply Chains (Ver 3.3)"
12	End-of-Life Treatment of Sold Products	For disposal of sold products: Sales quantity × Product weight × Emission factor For refrigerant recovery from sold products: Sales quantity × Remaining refrigerant amount × (1-Recovery rate) × Global warming potential	<ul style="list-style-type: none"> Sustainable Management Promotion Organization "LCI Database IDEA v2" Greenhouse Gas Emission Calculation and Reporting Manual (Ver 4.9) (April 2023) Ministry of the Environment, Japan "Emission Factor Database for Calculating GHG Emissions Through Supply Chains (Ver 3.3)"

Category		Calculation Method	Source of Emission Factors
13	Downstream Leased Assets	<p>For energy use of products leased to other companies:</p> <ul style="list-style-type: none"> Electricity: Number of lease contracts × Annual electricity consumption × CO2 emission factor <p>For refrigerant leakage from products leased to other companies:</p> <p>Number of lease contracts × Refrigerant filling amount × Annual leakage rate × Global warming potential</p>	<ul style="list-style-type: none"> IEA "CO2 Emissions from Fuel Combustion 2019" Greenhouse Gas Emission Calculation and Reporting Manual (Ver 4.9) (April 2023) Ministry of the Environment, Japan "Emission Factor Database for Calculating GHG Emissions Through Supply Chains (Ver 3.3)"
14	Franchises	Not applicable - Company does not operate franchise businesses	-
15	Investments	Not applicable - Company is not an investment entity	-