

GHG Emission Calculator - Quantity of Use

Example of Logistics Industry

1. Basic Information

Item Number	Name	Content to Fill In
1	Industry Type	H
2	Specific Industry Category	5301
3	Company Name	TEST-2024
4	Contact Number	02-2911-0688
5	Extension Number	0
6	E-mail	

Carbon Emission Calculator

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***Required**

Industry Type *

Specific Industry Category *

Company Name *

Contact Number *
Ex: 02-2222-2222

Extension Number *

E-mail *

CAPTCHA

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2. Basic Equipment Information (Optional)

3. Select Calculation Method: This example uses the **Advanced Calculation Method - Quantity of use (Red)**.

📄 選擇填寫方式

*請確認您的必填項目皆已完整填寫。

填寫方式

- 基本計算方式:以能源/資源費用計算
(例:僅需填入1年電費、天然氣費用與燃油費用等,可自行設定單位價格或是使用系統內建價格)
- 進階計算方式:以能源/資源使用量計算
(例:如1年使用多少度電、多少公升用油量與冷凍冷藏設備共有多少冷媒量等)


確認送出

4. A logistics center has recorded its energy and resource usage as well as refrigerant equipment. The center outsources its waste management, so the waste collection weight is calculated.

According to the statistical data, the nearest incinerator is the Yongkang Waste Resource Recovery (Incineration) Plant in Tainan City. For wastewater treatment, the nearest facility is the Central Taiwan Science Park Administration-Huwei Park in Huwei Township, Yunlin County.

Statistics Table of Energy and Resource Usage for Logistics Industry

Item	Quantity	Purpose
Electricity Usage (kWh/year)	5,060,600	Electricity Usage
Water Usage (m ³ /year)	450	Water Usage
Diesel Usage - Fixed Source (liters/year)	80	Generator
Diesel Usage - Mobile Source (liters/year)	530	Trucks


Calculated Based on Energy or Usage

Electricity <u>5060600</u> kWh	Water <u>450</u> m ³
Natural Gas <u> </u> m ³	Gasoline <u> </u> liter
Fuel Oil <u> </u> m ³	Liquefied Petroleum Gas <u> </u> barrels (20kg)
Diesel (Mobile Source) <u>530</u> liter	Diesel (Fixed Source) <u>80</u> liter

Refrigerant Usage Statistics for a Logistics Center Logistics Industry

Type	Quantity	Purpose
R404a(kg)	40	Chiller
R134a(kg)	200	Chiller

Refrigerant Discharge calculation

Item 1

▼

 kg

Item 2

▼

 kg

Waste Collection for Logistics Industry

Weight of Waste Collection (tons/year)	10
Distance of Waste Transport (kilometers)	25



Waste Transport and Incineration Calculation

Weight of garbage collection service

10 ton

Nearest incinerator

廢棄物焚化處理服務(臺南市永康垃圾資源回收(焚化)廠) ▼

Transportation emissions - distance of garbage collection
service (site to nearest incinerator)

25 km



Wastewater Treatment Calculation

Nearest wastewater treatment center

廢(污)水處理服務(中部科學工業園區管理局-虎尾園區) ▼

5. Upon completing the above information, the total greenhouse gas emissions are 2,994,952 kilograms of CO₂.

- Scope 1 emission as a percentage of total emissions 1.5%.
- In Scope 1, refrigerant R134a has the highest percentage contribution.
- Scope 2 emission as a percentage of total emissions 83.5%.
- In Scope 2, electricity usage has the highest percentage contribution.
- Scope 3 emission as a percentage of total emissions 15%.
- In Scope 3, upstream emissions come from electricity use has the highest percentage contribution.

Scope 1 Emission	Scope 1 Emission Total	43698.9	kgCO₂	Scope 1 Emission as percentage of Total Emissions	1.5	%
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Scope 2 Emission	Scope 2 Emission Total	2504997	kgCO₂	Scope 2 Emission as percentage of Total Emissions	83.5	%
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Scope 3 Emission	Scope 3 Emission Total	450275.1	公斤CO₂	Scope 3 Emission as percentage of Total Emissions	15	%
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Scope 1 Emission	Scope 1 Emission Total	43698.9	kgCO₂	Scope 1 Emission as percentage of Total Emissions	%
Nature Gas	Direct Emissions	0	kgCO ₂	Direct Emissions CO ₂ as a percentage of Total	0
Gasoline (Mobile Source)	Direct Emissions	0		Direct Emissions CO ₂ as a percentage of Total	0
Fuel Oil	Direct Emissions	0		Direct Emissions CO ₂ as a percentage of Total	0
LPG	Direct Emissions	0		Direct Emissions CO ₂ as a percentage of Total	0
Diesel (Mobile Source)	Direct Emissions	1404.5		Direct Emissions CO ₂ as a percentage of Total	0
Diesel (Fixed Source)	Direct Emissions	209.2		Direct Emissions CO ₂ as a percentage of Total	0
Refrigerant R134a	Direct Emissions	26010		Direct Emissions CO ₂ as a percentage of Total	0.9
Refrigerant R410A	Direct Emissions	0		Direct Emissions CO ₂ as a percentage of Total	0
Refrigerant R22	Direct Emissions	0		Direct Emissions CO ₂ as a percentage of Total	0
Refrigerant R32	Direct Emissions	0		Direct Emissions CO ₂ as a percentage of Total	0
Refrigerant R404A	Direct Emissions	16075.2		Direct Emissions CO ₂ as a percentage of Total	0.5
Refrigerant R507A	Direct Emissions	0		Direct Emissions CO ₂ as a percentage of Total	0
Refrigerant R744	Direct Emissions	0		Direct Emissions CO ₂ as a percentage of Total	0

Scope 2 Emission	Scope 2 Emission Total	2504997	kgCO₂	Scope 2 Emission as percentage of Total Emissions	%
Electricity	Indirect Emissions	2504997	kgCO ₂	Indirect Emissions CO ₂ as a percentage of Total	83.5

Scope 3 Emission	Scope 3 Emission Total	450275.1	kgCO₂	Scope 3 Emission as percentage of Total Emissions	%
Upstream emissions Electricity uses	Indirect Emissions	445332.8	kgCO ₂	Indirect Emissions CO ₂ as a percentage of Total	14.8
Water uses	Indirect Emissions	134.5		Indirect Emissions CO ₂ as a percentage of Total	0
Upstream emissions Nature Gas uses	Indirect Emissions	0		Indirect Emissions CO ₂ as a percentage of Total	0
Upstream emissions Gasoline (Mobile Source)	Indirect Emissions	0		Indirect Emissions CO ₂ as a percentage of Total	0
Upstream emissions Fuel Oil uses	Indirect Emissions	0		Indirect Emissions CO ₂ as a percentage of Total	0
Upstream emissions LPG uses	Indirect Emissions	0		Indirect Emissions CO ₂ as a percentage of Total	0
Upstream emissions Diesel uses (Mobile Source)	Indirect Emissions	386.9		Indirect Emissions CO ₂ as a percentage of Total	0
Upstream emissions Diesel uses (Fixed Source)	Indirect Emissions	58.4		Indirect Emissions CO ₂ as a percentage of Total	0
Waste Transport and Incineration	Indirect Emissions	3597.5		Indirect Emissions CO ₂ as a percentage of Total	0.1
Wastewater Treatment	Indirect Emissions	765		Indirect Emissions CO ₂ as a percentage of Total	0