

Greenhouse Gas Verification Opinion

The inventory of Greenhouse Gas emissions in year 2024 of

Tymphany Acoustic Technology (Thailand) Co., Ltd.

888/9, Mu 7, Khlong Kio Sub-district, Ban Bueng District,
Chon Buri Province, Thailand

has been verified in accordance with ISO 14064-3:2019 as meeting the requirements of

ISO 14064-1:2018

Opinion Type: Modified

Direct emissions

434.5376 tonnes of CO_{2e}

Indirect emissions

186,181.1136 tonnes of CO_{2e}

Direct emissions and indirect emissions

186,615.651 tonnes of CO_{2e}

Authorized by



Stephen Pao

Business Assurance Director

Date: 23 May 2025

Version 1

TGP56B-15-1 2501

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The emission of each category is described as below:

Unit: tonnes of CO₂e

Reporting Boundaries		GHG Emissions		
Inventory categories	Description	Location-based	Market-based	
Direct emissions	Direct emissions from stationary combustion	0.0880		
	Direct emissions from mobile combustion	0.0000		
	Direct process emissions and removals from industrial processes	0.0000		
	Direct fugitive emissions arise from the release of GHGs in anthropogenic systems	434.4496		
	Direct emissions and removals from land use, land use change and forestry	0.0000		
Indirect emissions	Imported energy	3,333.8716	1,643.1916	
	Transportation	Indirect emissions from upstream transport and distribution of martial	74.7057	
		Indirect emissions from downstream transport and distribution of goods	108.7311	
		Indirect emissions from employee commuting	429.0840	
		Indirect emissions from Business Travel	52.2164	
	Products used by an organization	Indirect emissions of raw materials and consumables related to production and purchase in the factory	99,485.5355	
		Indirect emissions from waste outsourcing treatment and transportation	85.9365	
		Indirect emissions from the upstream use of electricity and fuel	1,114.2349	
	Associated with the use of products from the organization	Indirect emissions from product use	81,496.7980	
	Other sources	No significant emissions	NA	
Direct emissions and indirect emissions		186,615.651	184,924.971	

Purchased Renewable Energy Certificate(s) Information				
Site/Location	Type	Renewable Energy Source/Location	Imported energy emissions	
			Location-based	Market-based
Tymphany_TH	I-REC	Solar/Thailand	3,333.8716	1,643.1916

SGS has been contracted for the verification of direct and indirect Greenhouse Gas emissions in accordance with

ISO 14064-3:2019

as provided by Tymphany Acoustic Technology (Thailand) Co., Ltd. (hereinafter referred to as “Tymphany_TH”), 888/9, Mu 7, Khlong Kio Sub-district, Ban Bueng District, Chon Buri Province, Thailand, in the GHG Statement in the form of GHG report.

Roles and responsibilities

- The management of Tymphany_TH is responsible for the organization’s GHG information system, the development and maintenance of records and reporting procedures in accordance with that system, including the calculation and determination of GHG emissions information and the reported GHG emissions.
- The verification was based on the verification scope, objectives and criteria as agreed on 24 July 2023 and 20 December 2024.
- Verification Criteria: ISO 14064-1:2018
- Verification Period: 21 February 2025 to 24 March 2025.

Scope

- GHG information for the following period was verified: 01 January 2024 to 31 December 2024
- Location/boundary of the activities:
 - 888/9, Mu 7, Khlong Kio Sub-district, Ban Bueng District, Chon Buri Province, Thailand
- Types of GHGs included: CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃
- The IPCC 2021 AR6 GWP values are applied in this inventory.
- Emission factor:
 - Direct emissions: Greenhouse Gas Emission Factor Table (6.0.4)
 - Indirect emissions:
 - Electricity emission factor is 0.438 tCO₂e/Mwh (Announced by Thailand in 2024).
 - The secondary database has Carbon Footprint Information Platform, China LCA database (2022) · U.S. LCI Database · Ecoinvent 2.2 · Ecoinvent 3.9.1 · ICAO Carbon Emissions Calculator
- The level of assurance for category 1 and category 2 agreed is that of reasonable assurance. Category 3 till category 6 agreed is that of limited assurance.

- Materiality : 5%
- The version of inventory sheet: 20250324
- The version of GHG statement: 20250324
- Intended user of the verification opinion: Private

Objective

The purposes of this verification exercise are, by review of objective evidence, to independently review:

- Whether the GHG emissions are as declared by the organization's GHG statement
- The data reported are accurate, complete, consistent, transparent and free of material error or omission.

Conclusion

SGS's approach is risk-based, drawing on an understanding of the risks associated with reporting GHG emissions information and the controls in place to mitigate these. Our examination includes assessment, on a test basis, of evidence relevant to the amounts and disclosures in relation to the organization's reported GHG emissions. We planned and performed our work to obtain the information, explanations and evidence that the GHG emissions are free from material misstatement.

- The greenhouse gas emissions is 186,615.651 metric tonnes of CO₂ equivalent
- The emissions from the combustion of biomass is 0.0000 metric tonnes of CO₂ equivalent

The emission of each category is described as below:

Unit: tonnes of CO₂e

Reporting Boundaries		Description	GHG Emissions	
			Location-based	Market-based
Inventory categories				
Direct emissions		Direct emissions from stationary combustion	0.0880	
		Direct emissions from mobile combustion	0.0000	
		Direct process emissions and removals from industrial processes	0.0000	
		Direct fugitive emissions arise from the release of GHGs in anthropogenic systems	434.4496	
		Direct emissions and removals from land use, land use change and forestry	0.0000	
Indirect emissions	Imported energy	Indirect emissions from imported electricity	3,333.8716	1,643.1916
	Transportation	Indirect emissions from upstream transport and distribution of	74.7057	

		marital	
		Indirect emissions from downstream transport and distribution of goods	108.7311
		Indirect emissions from employee commuting	429.0840
		Indirect emissions from Business Travel	52.2164
	Products used by an organization	Indirect emissions of raw materials and consumables related to production and purchase in the factory	99,485.5355
		Indirect emissions from waste outsourcing treatment and transportation	85.9365
		Indirect emissions from the upstream use of electricity and fuel	1,114.2349
	Associated with the use of products from the organization	Indirect emissions from product use	81,496.7980
	Other sources	No significant emissions	NA
	Direct emissions and indirect emissions		

Tymphany_TH purchased 3,860 Renewable Energy Certificate(s) in 2024. The imported energy emissions by location-based and market-based approach shown as the following table :

Unit: tonnes of CO_{2e}

Purchased Renewable Energy Certificate(s) Information				
Site/Location	Type	Renewable Energy Source/Location	Imported energy emissions	
			Location-based	Market-based
Tymphany_TH	I-REC	Solar/Thailand	3,333.8716	1,643.1916

- The opinion of SGS is modified in accordance with the following described circumstances.
 - The verifier has sufficient and appropriate evidence to support the material emissions, removals, or storage.
 - The verifier applies appropriate criteria for the material emissions, removals, or storage.
 - When the verifier intends to rely on relevant controls, the effectiveness of those controls has been assessed.

- The verifier, applying the ISO 14064-1:2018 standard, presents the following findings. After adjustments and corrections, no material errors were identified.
 - Correction of certain activity data.
- Retention Limitation: NA

Confidentiality

The reports and attachments may contain relevantly confidential information of the clients. In addition to being submitted as governmental application or certification documents, the reports and attachments are not allowed to be edited, duplicated, or published without the clients' agreement in written form.

Avoidance of Conflict of Interest

The reports and attachments are completely complied with the standards and procedures that related authorities established. The reports and attachments of auditing process are conduct with fairness and honesty. If not, the auditing institution not only has to bear the relevant compensation duties, but also to receive legal charge and punishment.

This opinion shall be interpreted with the GHG statement of Tymphany_TH as a whole.

Verifier Group

Above opinions coincide with auditing process with fairness and impartiality and aim at the emission of year 2024 of clients.

Lead Verifier:



Verifier:



Note: This opinion is issued, on behalf of Client, by SGS Taiwan Ltd. ("SGS") under its General Conditions for Greenhouse Gas Verification Services available at http://www.sgs.com/terms_and_conditions.htm. The findings recorded hereon are based upon an audit performed by SGS. A full copy of this opinion, the findings and the supporting GHG Statement may be consulted at Tymphany Acoustic Technology (Thailand) Co., Ltd., 888/9 Moo.7 Klong kiew sub-district, Banbueng district, Chonburi province 20220, Thailand., This opinion does not relieve Client from compliance with any bylaws, federal, national or regional acts and regulations or with any guidelines issued pursuant to such regulations. Stipulations to the contrary are not binding on SGS and SGS shall have no responsibility vis-à-vis parties other than its Client.