

Greenhouse Gas Verification Statement

The inventory of Greenhouse Gas emissions in year 2023 of

Muramoto Electron (Thailand) Public Company Limited

METCO1: 886 Ramindra Road, Khan Na Yao Subdistrict, Khan Na Yao District, Bangkok 10230, Thailand

METCO2: 1, Moo 6, Bangna-Trad Road, Km. 25, Bang Sao Thong Subdistrict, Bang Sao Thong District, Samutprakarn 10570, Thailand

METCO3: 99/7 Moo 3, Bangna-Trad Road, Km. 23, Bang Sao Thong Subdistrict, Bang Sao Thong District, Samutprakarn 10570, Thailand

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

ISO 14064-1:2018

Direct GHG Emissions (Category 1) = 655 tonnes of CO₂e

Indirect GHG Emissions (Category 2) = 21,009 tonnes of CO₂e
(Location based)

Indirect GHG Emissions (Category 2) = 0 tonnes of CO₂e
(Market based)

Indirect GHG Emissions(Category 3-6) = 153,625 tonnes of CO₂e

Authorized by



Montree Tangtermsirikul
General Manager

Date: 16 April 2024

SGS 14064-1
SGS (Thailand) Ltd.
100 Nanglinchee Road, Chongnonsee, Yannawa,
Bangkok 10120, Thailand
t (02) 6781813 f (02) 6780620 www.sgs.com



The emissions of energy by location-based and market-based approach as below :

Operational Boundaries			GHG Emissions	
			Location-based	Market-based
Direct emissions			655	
Energy indirect emissions			21,009	0
Total Emissions			21,664	655
Purchased Renewable Energy Certificate(s) Information				
Site/Location	Type	Renewable Energy Source/Location	Energy indirect emissions	
			Location-based	Market-based
Innopower Co., Ltd	I-REC	Renewable/Thailand	21,009	21,645.67

Unit: tonnes of CO₂e

SGS has been contracted by Muramoto Electron (Thailand) Public Company Limited (hereinafter referred to as "METCO"), METCO1 : 886 Ramindra Road, Khan Na Yao Subdistrict, Khan Na Yao District, Bangkok 10230, METCO2 : 1, Moo. 6, Bangna-Trad Road, Km. 25, Bang Sao Thong Subdistrict, Bang Sao Thong District, Samutprakarn, 10570, and METCO3 : 99/7 Moo. 3, Bangna-Trad Road, Km. 23, Bang Sao Thong Subdistrict, Bang Sao Thong District Samutprakarn, 10570, for the verification of direct and indirect Greenhouse Gas emissions in accordance with

ISO 14064-3:2019

as provided by Muramoto Electron (Thailand) Public Company Limited (hereinafter referred to as "METCO"), METCO1 : 886 Ramindra Road, Khan Na Yao Subdistrict, Khan Na Yao District, Bangkok 10230, METCO2 : 1, Moo. 6, Bangna-Trad Road, Km. 25, Bang Sao Thong Subdistrict, Bang Sao Thong District, Samutprakarn, 10570, and METCO3 : 99/7 Moo. 3, Bangna-Trad Road, Km. 23, Bang Sao Thong Subdistrict, Bang Sao Thong District, Samutprakarn, 10570, in the GHG Assertion in the form of GHG report covering GHG emissions of the period 01 October 2022 – 30 September 2023.

Roles and responsibilities

The management of METCO 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.

It is SGS's responsibility to express an independent GHG verification opinion on the GHG emissions as provided in the GHG Assertion for the period 01 October 2022 – 30 September 2023.

SGS conducted a third-party verification of the provided GHG assertion against the principles of ISO 14064-1:2018, ISO 14064-3:2019 in the period 28-29/02/2024. The verification was based on the verification scope, objectives and criteria as agreed between METCO and SGS on 06/12/2023.

Level of Assurance

The level of assurance agreed is that of Limited assurance.

Scope

METCO has commissioned an independent verification by SGS Thailand of reported GHG emissions of METCO arising from Manufacturing of Components for Electronics, Electrical and Automotive Components and Finished Product by Die Set. Manufacturing, Metal Stamping, Plastic Injection, Painting, Printing, PCB Surface Mounting and Assembly Process activities, to establish conformance with ISO 14064:2018 principles within the scope of the verification as outlined below.

This engagement covers verification of emission from anthropogenic sources of greenhouse gases included within the organization's boundary and is based on ISO 14064-3:2019.

- Title or description activities: GHG verification for METCO in 01 October 2022 – 30 September 2023
- Location/boundary of the activities:
 - METCO1 : No. 886 Ramindra Road, Khan Na Yao Subdistrict, Khan Na Yao District, Bangkok 10230,
 - METCO2 : No 1, Moo. 6, Bangna-Trad Road, Km. 25, Bang Sao Thong Subdistrict, Bang Sao Thong District, Samutprakarn 10570,
 - METCO3 : No. 99/7 Moo. 3, Bangna-Trad Road, Km. 23, Bang Sao Thong Subdistrict, Bang Sao Thong District, Samutprakarn 10570
- Physical infrastructure, activities, technologies and processes of the organization:
 - Manufacturing of Components for Electronics, Electrical and Automotive Components and Finished Product by Die Set.
 - Manufacturing, Metal Stamping, Plastic Injection, Painting, Printing, PCB Surface Mounting and Assembly Process
- GHG sources, sinks and/or reservoirs included: Sources as presented in the inventory spreadsheet provided by METCO

- Types of GHGs included: CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃
- The IPCC 2021 AR6 GWP values are applied in this inventory.
- Electricity emission factor: 0.4999 kgCO₂e/kwh
(Announced by Thailand Greenhouse Gas Management Organization in 2022)
- Directed actions: NA
- GHG information for the following period was verified: 01 October 2022 – 30 September 2023
- The version of inventory sheet: CFO 2023 280223
- The version of GHG assertion: METCO_GHG report 280223
- Intended user of the verification statement: 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 assertion
- The data reported are accurate, complete, consistent, transparent and free of material error or omission.

Criteria

Criteria against which the verification assessment is undertaken are the principles of ISO 14064-1:2018

Materiality

The materiality required of the verification was considered by SGS to 5%, based on the needs of the intended user of the GHG Assertion.

Conclusion

METCO provided the GHG assertion based on the requirements of ISO14064-1: 2018. The GHG information for the period 01 October 2022 – 30 September 2023 disclosing emissions of 175,289 metric tonnes of CO₂ equivalent as location-based, and 154,280 metric tonnes of CO₂ equivalent as market based, are verified by SGS to a Limited level of assurance, consistent with the agreed verification scope, objectives and criteria.

The emission of each site is described as below:

Unit: tonnes of CO₂e

Operational Boundaries			GHG Emissions	
Category	Description		Location-based	Market-based
Direct emissions	This direct GHG emissions are the sum of owned or controlled by the organization within the organization		655	
Indirect emissions	Imported energy	Imported Electricity	21,009	0
	Transportation	3.1 Upstream transportation and distribution	1,260	
		3.2 Business travel	26	
		3.3 Employee commuting	3,763	
		3.4 Downstream transportation and distribution	250	
		3.5 Transportation of waste	10	
Products used by an organization	4.1 Purchased goods and services	147,245		
	4.4 Waste generated in operations	1,071		
Total direct emissions and indirect emissions			175,289	154,280
Production based intensity ratio (TonCO ₂ e/ Million Baht) - Category 1 + 2			1.40	0.04
Production based intensity ratio (TonCO ₂ e/ Million Baht) - Category 1 - 6			11.30	9.95

METCO purchased Renewable Energy Certificate(s) in period 01 October 2022 – 30 September 2023. The energy indirect emissions by location-based and market-based approach shown as the following table, which is based on the GHG Protocol Scope 2 Guidance (2015).

Purchased Renewable Energy Certificate(s) Information				
Site/Location	Type	Renewable Energy Source/Location	Energy indirect emissions	
			Location-based	Market-based
Innopower Co., Ltd	I-REC	Renewable/Thailand	21,009	784.3431
Innopower Co., Ltd	I-REC	Renewable/Thailand		2623.475
Innopower Co., Ltd	I-REC	Renewable/Thailand		1850.63
Innopower Co., Ltd	I-REC	Renewable/Thailand		699.3601
Innopower Co., Ltd	I-REC	Renewable/Thailand		2630.474
Innopower Co., Ltd	I-REC	Renewable/Thailand		1641.172
Innopower Co., Ltd	I-REC	Renewable/Thailand		885.8228
Innopower Co., Ltd	I-REC	Renewable/Thailand		2692.961
Innopower Co., Ltd	I-REC	Renewable/Thailand		1726.655
Innopower Co., Ltd	I-REC	Renewable/Thailand		813.8372
Innopower Co., Ltd	I-REC	Renewable/Thailand		3437.312
Innopower Co., Ltd	I-REC	Renewable/Thailand		1859.628
Total			21,009	21,645.67

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 we considered necessary to provide a Limited level of assurance that the GHG emissions for the period 01 October 2022 – 30 September 2023 are fairly stated.

We conducted our verification with regard to the GHG assertion of METCO which included assessment of GHG information system, monitoring and reporting plan/protocol. This assessment included the collection of evidence supporting the reported data, and checking whether the provisions of the protocol reference, were consistently and appropriately applied.

In SGS's opinion, the presented GHG assertion

- is materially correct and is a fair representation of the GHG data and information, and
- is prepared in accordance with ISO14064-1:2018 on GHG quantification, monitoring and reporting.

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 statement shall be interpreted with the GHG assertion of METCO as a whole.

Verifier Group

Above statements coincide with auditing process with fairness and impartiality and aim at the emission of year 2023 of clients.

Lead Verifier:



Arisa Sumthong

Verifier:



Cherdchanok Sa-nguankijpatta



Anutaree Yorsangrat

Note: This statement is issued, on behalf of Client, by SGS (Thailand) Ltd. ("SGS") under its General Conditions for Greenhouse Gas Verification Services available at <https://www.sgs.com/en/terms-and-conditions>. The findings recorded here on are based upon an verification performed by SGS. A full copy of this statement, the findings and the supporting GHG Assertion may be consulted at Muramoto Electron (Thailand) Public Company Limited, METCO1 : 886 Ramindra Road, Khan Na Yao Subdistrict, Khan Na Yao District, Bangkok 10230, METCO2 : 1, Moo. 6, Bangna-Trad Road, Km. 25, Bang Sao Thong Subdistrict, Bang Sao Thong District Samutprakarn Province 10570, and METCO3 : 99/7 Moo. 3, Bangna-Trad Road, Km. 23, Bang Sao Thong Subdistrict, Bang Sao Thong District Samutprakarn Province 10570 This statement does not relieve client from compliance with any bylaws, federal, national or regional acts and regulations. Stipulations to the contrary are not binding on SGS and SGS shall have no responsibility vis-à-vis parties other than its client.