

# **Greenhouse Gas Verification Opinion**

The inventory of Greenhouse Gas emissions in year 2024 of

## Primax Electronics (Thailand) Co., Ltd.

888/8 Moo.7 Klongkiew sub-district, Banbueng District, Chonburi Province 20220, 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

658.7909 tonnes of CO2e

Indirect emissions

170,172.7742 tonnes of CO<sub>2</sub>e

Direct emissions and indirect emissions

170,831.565 tonnes of CO<sub>2</sub>e

Authorized by

Stephen Pao

**Business Assurance Director** 

Date: 23 May 2025

Version 1

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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	0.9806	
		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	657.8103	
		Direct emissions and removals from land use, land use change and forestry	0.0000	
	Imported energy	Indirect emissions from imported electricity	4,603.6016	2,203.3616
	Transportation	Indirect emissions from upstream transport and distribution of martial	97.69	902
		Indirect emissions from downstream transport and distribution of goods	36.9526	
		Indirect emissions from employee commuting	676.6458	
		Indirect emissions from Business Travel	1,316.7749	
Indirect emissions		Indirect emissions of raw materials and consumables related to production and purchase in the factory	113,593.0308	
	Products used by an organization	Indirect emissions from waste outsourcing treatment and transportation	71.1031	
		Indirect emissions from the upstream use of electricity and fuel		
	Associated with the use of products from the organization	Indirect emissions from product use	48,253.4240	
	Other sources	No significant emissions	NA	
Direct emiss	ions and indirect emi	ssions	170,831.565	168,431.325



Purchased Renewable Energy Certificate(s) Information				
Site/Location	Туре	Renewable Energy Source/Location	Imported energy emissions	
			Location-based	Market-based
Primax_TH	I-REC	Solar/Thailand	4,603.6016	2,203.3616





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

#### ISO 14064-3:2019

as provided by Primax Electronics (Thailand) Corp., Ltd. (hereinafter referred to as "Primax\_TH"), 888/8 Moo.7 Klongkiew sub-district, Banbueng District, Chonburi Province 20220, Thailand, in the GHG Statement in the form of GHG report.

## Roles and responsibilities

- The management of Primax\_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 19
  June 2023 and 16 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:
  - 888/8 Moo.7 Klongkiew sub-district, Banbueng District, Chonburi Province 20220,
    Thailand
- Types of GHGs included: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub>, NF<sub>3</sub>
- The IPCC 2021 AR6 GWP values are applied in this inventory.
- Emission factor:
  - o 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 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%

## Opinion TW25/00244GG, continued



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 170,831.565 metric tonnes of CO<sub>2</sub> equivalent
- The emissions from the combustion of biomass is 0.0000 metric tonnes of CO<sub>2</sub> equivalent

The emission of each category is described as below:

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Reporting Boundaries		GHG Emissions		
Inventory categories		Description	Location-based	Market-based
Direct emissions		Direct emissions from stationary combustion	0.9806	
		Direct emissions from mobile combustion	0.0000	
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		Direct fugitive emissions arise from the release of GHGs in anthropogenic systems	657.8103	
		Direct emissions and removals from land use, land use change and forestry	0.0000	
Indirect emissions	Imported energy	Indirect emissions from imported electricity	4,603.6016	2,203.3616

Unit tonnes of CO2e



Direct emiss	Direct emissions and indirect emissions		170,831.565	168,431.325
	Other sources	No significant emissions	NA	
	Associated with the use of products from the organization	Indirect emissions from product use	48,253.4240	
		Indirect emissions from the upstream use of electricity and fuel	1,523.5511	
	Products used by an organization	Indirect emissions from waste outsourcing treatment and transportation	71.10	031
		Indirect emissions of raw materials and consumables related to production and purchase in the factory	113,593.0308	
	Transportation	Indirect emissions from Business Travel	1,316.7749	
		Indirect emissions from employee commuting	676.6458	
		Indirect emissions from downstream transport and distribution of goods	36.9526	
		Indirect emissions from upstream transport and distribution of martial	97.69	002

Primax\_TH purchased 5,480 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 CO2e

Purchased Renewable Energy Certificate(s) Information				
Site/Location	Туре	Renewable Energy Source/Location	Imported energy emissions	
			Location-based	Market-based
Primax_TH	I-REC	Solar/Thailand	4,603.6016	2,203.3616

- 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.

Opinion TW25/00244GG, continued

SGS

- 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 Primax TH as a whole.

Channing Chen

#### **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 Primax Electronics (Thailand) Corp., Ltd., 888/8 Moo.7 Klongkiew 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.