

OPINION

Greenhouse Gases Verification Opinion ISO 14064-1 : 2018

Gives to

GREATEK ELECTRONICS INC.

Office Address

**No. 136, Gong-Yi Rd., Zhunan Township,
Miaoli County 350, Taiwan**

The quantity of Greenhouse Gas of the above organization and found to be in accordance with ISO 14064-3:2019. (detailed information please refer to next page)

Report Year	: 2022	
Greenhouse Gases		
Direct Emissions	: 853.7187	CO2-e Tonnes/ year
Energy Indirect Emissions(Category2)	: 77,645.4050	CO2-e Tonnes/ year
Other Indirect Emissions (Category3-6)	: 22,518.2761	CO2-e Tonnes/ year
Sum	: 101,017.400	CO2-e Tonnes/ year
Materiality	: 5%	
Reasonable Assurance	: Direct and Energy Indirect Emissions	
Limited Assurance	: Category3-6	

Opinion No.: GHG-233337039

Version:

Verify Date: 2023-05-22

Issue Date: 2023-08-02



Verification Body
at TUV NORD Taiwan Co., Ltd.

TUV NORD Taiwan Co., Ltd.
Room A1, 9F, No.333, Sec. 2,
Tun Hua S. Rd.
Taipei 10669 Taiwan, R.O.C.

Further clarifications regarding the scope of this opinion and the applicability of the standard may be obtained by consulting the organization

TUV NORD Taiwan Co., Ltd. Room A1, 9F, No. 333, Sec. 2, Tun Hua S. Rd., Taipei, Taiwan www.tuv-nord.com/tw/en

OPINION

Appendix to Opinion No. GHG-233337039

ISO 14064-1 : 2018

TUV NORD Taiwan Co., Ltd (hereinafter referred to as "TUV NORD") has been contracted with Greatek Electronics Inc. (hereinafter referred to as "Greatek"), No. 136, Gong-Yi Rd., Zhunan Township, Miaoli County 350, Taiwan for the verification of direct and indirect greenhouse gas emissions in accordance with ISO 14064-3:2019. In the GHG Opinion in the form of GHG report covering GHG emissions of the period 01, 01, 2022 to 31, 12, 2022.

Roles and responsibilities

The management of Greatek 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.

TUV NORD conducted a third party verification to express an independent GHG verification opinion on the GHG emissions as provided in the GHG Opinion for the period year 2022.

Level of Assurance

The level of assurance agreed are that of reasonable assurance for category 1 and 2; Limited level assurance from category 3 to 6.

Scope

Verification of GHG emissions within the organization's boundary and is based on ISO 14064-3:2019.

Location/Boundary of the activities:

Company	Address
Greatek Electronics Inc.	No. 112, Gong-Yi Rd., Zhunan Township, Miaoli County 350, Taiwan
	No. 136, Gong-Yi Rd., Zhunan Township, Miaoli County 350, Taiwan
	No. 10. Ln.178, Gong-Yi Rd., Zhunan Township, Miaoli County 350, Taiwan
	No. 158, Gong-Yi Rd., Zhunan Township, Miaoli County 350, Taiwan
	No. 100, 2 nd Neighborhood, Gong-Yi Rd., Zhunan Township, Miaoli County 350, Taiwan (dormitory)

- Types of GHGs included: CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃
- The IPCC 2021 AR6 GWP values are applied in the inventory.
- GHG information for the following period was verified on 11, 05, 2023 to 22, 05, 2023

The GHG emissions are described as below:

GHG emissions categorization		Description	GHG emission (tonnes of CO ₂ e per year)
Direct Emissions/ Category 1		Occur from GHG sources inside organizational boundaries and that are owned or controlled by the organization.	853.7187
Energy Indirect Emissions	Category 2	Indirect GHG emissions from imported energy	77,645.4050
Indirect Emissions	Category 3	Indirect GHG emissions from transportation	4,955.8352
	Category 4	Indirect GHG emissions from products used by an organization	17,562.4409
	Category 5	Indirect GHG emissions associated with the use of products from the organization	Undisclosed
	Category 6	Other sources	Undisclosed
Direct Emissions and Indirect Emissions			101,017.400

The GHG emissions categorization are based on Annex B of ISO14064-1:2018.
Intended User of Verification Opinion: Organizations use for their own reference.

Confidentiality

The reports and appendix are not allowed to be edited, duplicated, or published without the clients' agreement.

Avoidance of Conflict of Interest

The reports was verified with fairness and honestly.

Verifiers Group

According as the above opinion were judgement by TUV NORD.



Verification Body
at TUV NORD Taiwan Co., Ltd.

TUV NORD Taiwan Co., Ltd.
Room A1, 9F, No.333, Sec. 2,
Tun Hua S. Rd.
Taipei 10669 Taiwan, R.O.C.

Further clarifications regarding the scope of this opinion and the applicability of the standard may be obtained by consulting the organization

TUV NORD Taiwan Co., Ltd. Room A1, 9F, No. 333, Sec. 2, Tun Hua S. Rd., Taipei, Taiwan www.tuv-nord.com/tw/en

OPINION

Greenhouse Gases Verification Opinion ISO 14064-1 : 2018

Gives to

GREATEK ELECTRONICS INC.

Office Address

**No.9&11,Zhuong-Min Rd., Toufen City,
Miaoli County 351,Taiwan.**

The quantity of Greenhouse Gas of the above organization and found to be in accordance with ISO 14064-3:2019. (detailed information please refer to next page)

Report Year	: 2022
Greenhouse Gases	
Direct Emissions	: 322.5334 CO2-e Tonnes/ year
Energy Indirect Emissions(Category2)	: 29,832.6997 CO2-e Tonnes/ year
Other Indirect Emissions (Category3-6)	: 9,729.1379 CO2-e Tonnes/ year
Sum	: 39,884.371 CO2-e Tonnes/ year
Materiality	: 5%
Reasonable Assurance	: Direct and Energy Indirect Emissions
Limited Assurance	: Category3-6

Opinion No.: GHG-233337040

Version:

Verify Date: 2023-05-23

Issue Date: 2023-08-02



Verification Body
at TUV NORD Taiwan Co., Ltd.

TUV NORD Taiwan Co., Ltd.
Room A1, 9F, No.333, Sec. 2,
Tun Hua S. Rd.
Taipei 10669 Taiwan, R.O.C.

Further clarifications regarding the scope of this opinion and the applicability of the standard may be obtained by consulting the organization

TUV NORD Taiwan Co., Ltd. Room A1, 9F, No. 333, Sec. 2, Tun Hua S. Rd., Taipei, Taiwan www.tuv-nord.com/tw/en

OPINION

Appendix to Opinion No. GHG-233337040

ISO 14064-1 : 2018

TUV NORD Taiwan Co., Ltd (hereinafter referred to as "TUV NORD") has been contracted with Greatek Electronics Inc. (hereinafter referred to as "Greatek"), No.9&11,Zhuong-Min Rd., Toufen City,Miaoli County 351,Taiwan for the verification of direct and indirect greenhouse gas emissions in accordance with ISO 14064-3:2019. In the GHG Opinion in the form of GHG report covering GHG emissions of the period 01, 01, 2022 to 31, 12, 2022.

Roles and responsibilities

The management of Greatek 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.

TUV NORD conducted a third party verification to express an independent GHG verification opinion on the GHG emissions as provided in the GHG Opinion for the period year 2022.

Level of Assurance

The level of assurance agreed are that of reasonable assurance for category 1 and 2; Limited level assurance from category 3 to 6.

Scope

Verification of GHG emissions within the organization's boundary and is based on ISO 14064-3:2019.

- Types of GHGs included: CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃
- The IPCC 2021 AR6 GWP values are applied in the inventory.
- GHG information for the following period was verified on 12, 05, 2023 to 23, 05, 2023.

The GHG emissions are described as below:

GHG emissions categorization		Description	GHG emission (tonnes of CO ₂ e per year)
Direct Emissions/ Category 1		Occur from GHG sources inside organizational boundaries and that are owned or controlled by the organization.	322.5334
Energy Indirect Emissions	Category 2	Indirect GHG emissions from imported energy	29,832.6997
	Category 3	Indirect GHG emissions from transportation	252.1717
Indirect Emissions	Category 4	Indirect GHG emissions from products used by an organization	9,476.9662
	Category 5	Indirect GHG emissions associated with the use of products from the organization	Undisclosed
	Category 6	Other sources	Undisclosed
Direct Emissions and Indirect Emissions			39,884.371

The GHG emissions categorization are based on Annex B of ISO14064-1:2018.
Intended User of Verification Opinion: Organizations use for their own reference.

Confidentiality

The reports and appendix are not allowed to be edited, duplicated, or published without the clients' agreement.

Avoidance of Conflict of Interest

The reports was verified with fairness and honestly.

Verifiers Group

According as the above opinion were judgement by TUV NORD.



Verification Body
at TUV NORD Taiwan Co., Ltd.

TUV NORD Taiwan Co., Ltd.
Room A1, 9F, No.333, Sec. 2,
Tun Hua S. Rd.
Taipei 10669 Taiwan, R.O.C.

Further clarifications regarding the scope of this opinion and the applicability of the standard may be obtained by consulting the organization

TUV NORD Taiwan Co., Ltd. Room A1, 9F, No. 333, Sec. 2, Tun Hua S. Rd., Taipei, Taiwan www.tuv-nord.com/tw/en