

# Greenhouse Gas Verification Opinion

The inventory of Greenhouse Gas emissions in year 2023 of  
**King Yuan Electronics Co., Ltd.**

No. 118, Chung-Hua Rd., Chu-Nan,  
Miao-Li Hsien 350, Taiwan, R.O.C.



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

## ISO 14064-1:2018

Direct emissions

**5,613.4599** tonnes of CO<sub>2</sub>e

Indirect emissions

**380,970.9836** tonnes of CO<sub>2</sub>e

Direct emissions and indirect emissions

**386,584.444** tonnes of CO<sub>2</sub>e

Authorized by

Stephen Pao

Knowledge Deputy General Manager

Date: 28 March 2024

Version 1

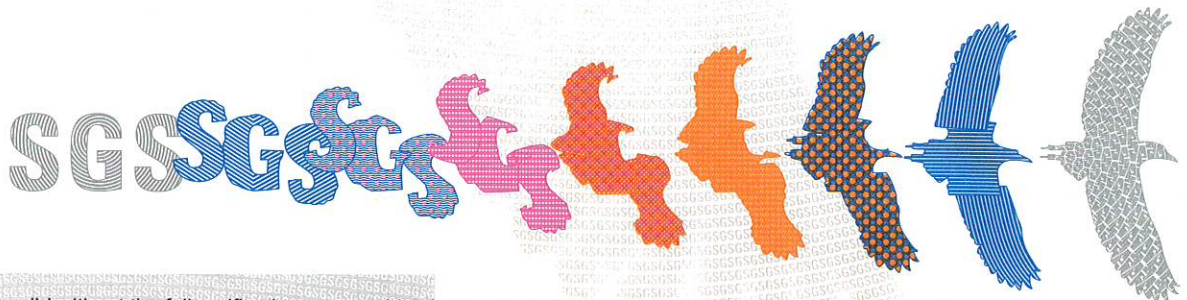
TGP56B-15-1 2401

SGS Taiwan Ltd.

No. 136-1, Wu Kung Road, New Taipei Industrial Park, Wu Ku District,

New Taipei City 24803, Taiwan

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The emission of each category is described as below:

Unit: tonnes of CO<sub>2e</sub>

Reporting Boundaries		GHG Emissions	
Inventory categories	Description		
Direct emissions	Direct emissions from stationary combustion		11.4284
	Direct emissions from mobile combustion		505.0733
	Direct process emissions and removals from industrial processes		3.6464
	Direct fugitive emissions arise from the release of GHGs in anthropogenic systems		5,093.3118
	Direct emissions and removals from land use, land use change and forestry		0.0000
Indirect emissions	Imported energy	Imported Electricity	295,841.0379
	Transportation	- Upstream transportation and distribution for Bulk gas, packaging materials and consignments	19,191.9921
		- Downstream transportation and distribution for consignments	
		- Employee commuting	
		- Transportation for waste generated in operations	
Products used by an organization	- Energy-related activities (not included in category 2) - Purchased goods (Bulk gas and packaging materials) - Treatment for waste generated in operations.	65,937.9536	
Associated with the use of products from the organization	(not significant)	--	
Other sources	(not significant)	--	
Direct emissions and indirect emissions			386,584.444

The emission of each site is described as below:

Unit: tonnes of CO<sub>2e</sub>

Site	Direct emissions	Indirect emissions		Total GHG emissions
	Category 1	Category 2	Category 3~6	
Hsin-Chu plant	437.5993	5,860.2060	1,276.3849	7,574.190

Site	Direct emissions	Indirect emissions		Total GHG emissions
	Category 1	Category 2	Category 3~6	
Chu-Nan plant (CH1~CH5)	4,613.0770	221,091.5520	67,254.3171	292,958.946
Tong-Luo plant	562.3093	68,884.3980	16,598.2335	86,044.941
KYEC USA Corp.	0.1953	0.0000	0.0000	0.195
KYEC Japan. K.K.	0.1953	4.1841	0.8570	5.236
KYEC SINGAPORE PTE. LTD.	0.0837	0.6978	0.1532	0.935
KYEC Investment International Co., Ltd.	0.0000	0.0000	0.0000	0.0000
KYEC Technology Management Co., Ltd.	0.0000	0.0000	0.0000	0.0000
KYEC Microelectronics Co., Ltd.	0.0000	0.0000	0.0000	0.0000

SGS, No. 136-1, Wu Kung Road, New Taipei Industrial Park, Wu Ku District, New Taipei City 24803, Taiwan, has been contracted by King Yuan Electronics Co., Ltd. (hereinafter referred to as “KYEC”), No. 118, Chung-Hua Rd., Chu-Nan, Miao-Li Hsien 350, Taiwan, R.O.C. for the verification of direct and indirect Greenhouse Gas emissions in accordance with

### **ISO 14064-3:2019**

as provided by King Yuan Electronics Co., Ltd. (hereinafter referred to as “KYEC”), No. 118, Chung-Hua Rd., Chu-Nan, Miao-Li Hsien 350, Taiwan, R.O.C., in the GHG Statement in the form of GHG report.

### **Roles and responsibilities**

- The management of KYEC 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 between KYEC and SGS on 23 August 2023.
- Verification Criteria: ISO 14064-1:2018, ISO 14064-3:2019
- Verification Period: 05 January 2024 to 20 February 2024

### **Scope**

- GHG information for the following period was verified: 01 January 2023 to 31 December 2023
- Location/boundary of the activities:
  - Hsin-Chu plant:  
No. 81, Sec. 2, Gongdaowu Rd. Hsinchu City 300, Taiwan, R.O.C.
  - Chu-Nan plant (CH1~CH5):  
No. 118, Chung-Hua Rd., Chu-Nan, Miao-Li Hsien 350, Taiwan, R.O.C.  
No. 8, Lane 228, Chung-Hua Rd., Chu-Nan, Miao-Li Hsien 350, Taiwan, R.O.C.
  - Tong-Luo plant:  
No. 8, Tongke N. Rd., Tong-Luo, Miao-Li Hsien 366, Taiwan, R.O.C.
  - KYEC USA Corp.  
101 Meto Drive., #540 San Jose, CA 95110 USA.

- KYEC Japan K.K.  
2-3-8 Momochihama, Sawara-ku, Fukuoka 814-0001 Japan.
- KYEC SINGAPORE PTE. LTD.  
750A CHAI CHEE ROAD, #07-22, ESR BIZPARK @ CHAI CHEE, Singapore 469001
- KYEC Investment International Co., Ltd.  
Wickhams Cay II, Road Town Tortola, VG1110, British Virgin Islands.
- KYEC Technology Management Co., Ltd.  
Portcullis TrustNet Chambers, P.O. Box 1225, Apia, Samoa.
- KYEC Microelectronics Co., Ltd.  
P.O. Box 2804, George Town, Grand Cayman, Cayman Islands.
- 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:
  - Direct emissions: Greenhouse Gas Emission Inventory Operation Guideline (2022.05).
  - Indirect emissions:
    - Electricity emission factor is 0.495 kgCO<sub>2</sub>e/kwh (Announced by Energy Administration, Ministry of Economic Affairs in 2023).
    - The secondary database has Carbon Footprint Information Platform, Ecoinvent 3.10, Vehicle Life Cycle Assessment in Taiwan.
- 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: 2024/02/22
- The version of GHG statement: 2024/02/22, V1
- 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 386,584.444 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:

Unit: tonnes of CO<sub>2</sub>e

Reporting Boundaries			GHG Emissions
Inventory categories	Description		
Direct emissions		Direct emissions from stationary combustion	11.4284
		Direct emissions from mobile combustion	505.0733
		Direct process emissions and removals from industrial processes	3.6464
		Direct fugitive emissions arise from the release of GHGs in anthropogenic systems	5,093.3118
		Direct emissions and removals from land use, land use change and forestry	0.0000
Indirect emissions	Imported energy	Imported Electricity	295,841.0379
	Transportation	<ul style="list-style-type: none"> <li>- Upstream transportation and distribution for Bulk gas, packaging materials and consignments</li> <li>- Downstream transportation and distribution for consignments</li> <li>- Employee commuting</li> <li>- Transportation for waste generated in operations</li> </ul>	19,191.9921
	Products used by an organization	<ul style="list-style-type: none"> <li>- Energy-related activities (not included in category 2)</li> <li>- Purchased goods (Bulk gas and packaging materials)</li> <li>- Treatment for waste generated in operations.</li> </ul>	65,937.9536

Reporting Boundaries			GHG Emissions
Inventory categories	Description		
Associated with the use of products from the organization	(not significant)		--
Other sources	(not significant)		--
Direct emissions and indirect emissions			386,584.444

The emission of each site is described as below:

Unit: tonnes of CO<sub>2</sub>e

Site	Direct emissions	Indirect emissions		Total GHG emissions
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- 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.
  - The calculation of the ratio of electricity consumption for production and non-production was incorrect and has been corrected.
  - Correction of some activity data, such as: some packaging materials, employee commuting (motorcycle), domestic waste, etc.
- 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 KYEC as a whole.



**Verifier Group**

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

Lead Verifier:

*Emma Kao*

Verifier:

*Aiden Tseng*

*Chris Heia*

*Sunny Cheng*

*William Li*

*Mike Huang*

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](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 Assertion may be consulted at King Yuan Electronics Co., Ltd., No. 118, Chung-Hua Rd., Chu-Nan, Miao-Li Hsien 350, Taiwan, R.O.C., 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.