



## **Greenhouse Gas Verification Statement**

The inventory of Greenhouse Gas emissions in year 2021 of

# GlobalWafers Co., Ltd. Taisil Branch

No.2. Creation Road 1, Hsinchu Science Park, Hsinchu, Taiwan, R.O.C.

has been verified in accordance with ISO 14064-3:2006 as meeting the requirements of

ISO 14064-1:2018

Direct emissions
1307.3852 tonnes of CO<sub>2</sub>e
Indirect emissions
379638.0069 tonnes of CO<sub>2</sub>e
Direct emissions and indirect emissions
380945.392 tonnes of CO<sub>2</sub>e

Authorized by

David Huang Senior Director

Date: 17 May 2022

Version 1

TGP56A-15-6 2103 SGS Taiwan Ltd. No. 136-1, Wu Kung Road, New Taipei Industrial Park, Wu Ku District, New Taipei City 24803, Taiwan t (02) 22993279 f (02)22999453 www.sgs.com







### Statement TW22/00113GG, continued

The emission of each category is described as below:

Unit: tonnes of CO2e

	Reporting	GHG Emissions	
Inventory categories			Description
Direct emissions		This direct GHG emissions are the sum of owned or controlled by the organization within the organization.	86865051 8686505 856656 856656 856566 856566 856566 856566 856566 856566 856566 856566 856566 856566 856566 856566
	Imported energy	Imported Electricity	133361.9457
	Transportation	Upstream transportation and distribution for raw material (at least 80% of the total spend)	4742.1407
		Business travel (domestic business travel and overseas business travel flightsy)	
		Employee commuting	
Indirect emissions		Downstream transportation and distribution for sold products	
	Products used by	Purchased goods (at least 80% of the total spend)	241533.9205
		Fuel- and energy- related activities (not included in category 1 or category 2)	
		Transportation and treatment for waste generated in operations.	
	Associated with the use of products from the organization	SGSCSCSCSCSCSCSCSCSCSCSCSCSCSCSCSCSCSCS	
	Other sources	NA (6.55,635,635,635,635,635,635,635,635,635,6	
Direct emissions and indirect emissions			380945.392

Statement TW21/00020GG



## **Greenhouse Gas Verification Statement**

The inventory of Greenhouse Gas emissions in year 2020 of

## GlobalWafers Co., Ltd. Taisil Branch

No.2. Creation Road 1, Hsinchu Science Park, Hsinchu, Taiwan, R.O.C.



has been verified in accordance with ISO 14064-3:2006 as meeting the requirements of

ISO 14064-1:2018

Direct emissions

1,310.1932 tonnes of CO<sub>2</sub>e

Indirect emissions

364,400.2838 tonnes of CO<sub>2</sub>e

Direct emissions and indirect emissions

365,710.477 tonnes of CO<sub>2</sub>e

Authorized by

David Huang Senior Director Date: 10 March 2021

Version 1

TAF

Validation and Verification VB002

TGP56A-15-6 2103 SGS Taiwan Ltd. No. 136-1, Wu Kung Road, New Taipei Industrial Park, Wu Ku District, New Taipei City 24803, Taiwan t (02) 22993279 f (02)22999453 www.sgs.com





The emission of each category is described as below:

Unit: tonnes of CO2e

Reporting Boundaries			GHG Emissions
Inventory categories		Description	GHG EIIIISSIOIIS
Direct emissions		This direct GHG emissions are the sum of owned or controlled by the organization within the organization.	1,310.1932
	Imported energy	Imported Electricity	134,650.0867
	Transportation	Upstream transportation and distribution for raw material (at least 80% of the total spend)	7,011.4888
		Business travel (overseas business travel flights only)	
		Employee commuting	
Indirect emissions		Downstream transportation and distribution for sold products	
	Products used by an organization	Purchased goods (at least 80% of the total spend)	222,738.7083
		Fuel- and energy- related activities (not included in category 1 or category 2)	
		Transportation and treatment for waste generated in operations.	
	Associated with the use of products from the organization	NA	0.0000
	Other sources	NA	0.0000
Direct emissions and indirect emissions			365,710.477



SGS has been contracted by GlobalWafers Co., Ltd. Taisil Branch (hereinafter referred to as "GWC Taisil Branch"), No.2. Creation Road 1, Hsinchu Science Park, Hsinchu, Taiwan, R.O.C. for the verification of direct and indirect Greenhouse Gas emissions in accordance with

#### ISO 14064-3:2006

as provided by GlobalWafers Co., Ltd. Taisil Branch (hereinafter referred to as "GWC Taisil Branch"), No.2. Creation Road 1, Hsinchu Science Park, Hsinchu, Taiwan, R.O.C., in the GHG Assertion in the form of GHG report covering GHG emissions of the period 01 January 2020 to 31 December 2020.

#### Roles and responsibilities

The management of GWC Taisil Branch 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 January 2020 to 31 December 2020.

SGS conducted a third party verification of the provided GHG assertion against the principles of ISO 14064-1:2018, ISO 14064-3:2006 in the period 04 February 2021 to 23 February 2021. The verification was based on the verification scope, objectives and criteria as agreed between GWC Taisil Branch and SGS on 28 October 2020.

#### **Level of Assurance**

The level of assurance for category 1 and category 2 agreed is that of reasonable assurance.

#### Scope

GWC Taisil Branch has commissioned an independent verification by SGS Taiwan of reported GHG emissions of GWC Taisil Branch arising from the manufacture of silicon ingot and silicon wafer 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 14064-3:2006.



- Title or description activities: GHG verification for GWC Taisil Branch in year 2020
- Location/boundary of the activities:
  - No.2. Creation Road 1, Hsinchu Science Park, Hsinchu, Taiwan, R.O.C.
- Physical infrastructure, activities, technologies and processes of the organization: The manufacture of silicon ingot and silicon wafer.
- GHG sources, sinks and/or reservoirs included: Sources as presented in the inventory spreadsheet provided by GWC Taisil Branch
- 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 2013 AR5 GWP values are applied in this inventory.
- Emission factor:
  - o Direct emissions: Greenhouse Gas Emission Factor Table (6.0.4), EPA.
  - o Indirect emissions:
    - Electricity emission factor is 0.509 kgCO₂e/kwh (Announced by Bureau of Energy, Ministry of Economic Affairs in 2020).
    - The secondary database has Carbon Footprint Calculation Platform, SimaPro 9.0 Ecoinvent 3 database.
- Directed actions: NA
- GHG information for the following period was verified: 01 January 2020 to 31 December 2020
- The version of inventory sheet: V1 (2021.02.23)
- The version of GHG assertion: V1 (2021.02.23)
- · 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

GWC Taisil Branch provided the GHG assertion based on the requirements of ISO 14064-1: 2018. The GHG information for the period 01 January 2020 to 31 December 2020 disclosing emissions of 365,710.477 metric tonnes of  $CO_2$  equivalent and 0.0000 metric tonnes of direct  $CO_2$  emissions from the combustion of biomass are verified by SGS to a reasonable level of assurance, consistent with the agreed verification scope, objectives and criteria.

The emission of each category is described as below:

Unit: tonnes of CO2e

	Reporting	GHG Emissions	
Inventory categories			Description
Direct emissions		This direct GHG emissions are the sum of owned or controlled by the organization within the organization.	1,310.1932
Indirect emissions	Imported energy	Imported Electricity	134,650.0867
	Transportation	Upstream transportation and distribution for raw material (at least 80% of the total spend)	7,011.4888
		Business travel (overseas business travel flights only)	
		Employee commuting	
		Downstream transportation and distribution for sold products	
	Products used by an organization	Purchased goods (at least 80% of the total spend)	222,738.7083
		Fuel- and energy- related activities (not included in category 1 or category 2)	
		Transportation and treatment for waste generated in operations.	
	Associated with the use of products from the organization	NA	0.0000
	Other sources	NA	0.0000
Direct emis	sions and indirect	365,710.477	



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 reasonable level of assurance that the GHG emissions of category 1 and category 2 for the period 01 January 2020 to 31 December 2020 are fairly stated.

We conducted our verification with regard to the GHG assertion of GWC Taisil Branch 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 GWC Taisil Branch as a whole.



#### **Verifier Group**

Above statements coincide with auditing process with fairness and impartiality, and aim at the emission of year 2020 of clients.

Lead Verifier:

Darren Chan Alicia Su

Verifier:

Note: This Statement 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 statement, the findings and the supporting GHG Assertion may be consulted at GlobalWafers Co., Ltd. Taisil Branch, No.2. Creation Road 1, Hsinchu Science Park, Hsinchu, Taiwan, R.O.C., This Statement 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.