

Statement CN19/20472

Greenhouse Gas Verification Statement

The inventory of Greenhouse Gas emissions in
1st January 2018 to 31st December 2018 of

Semiconductor Manufacturing

International (Shanghai) Corporation

中芯国际集成电路制造（上海）有限公司

No.18, Zhangjiang Road, China (Shanghai) Pilot Free Trade Zone,
Shanghai, P. R. China.

中国（上海）自由贸易试验区张江路 18 号

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

ISO 14064-1:2006

Direct Emissions

230,326.71 tonnes of CO₂e

Energy Indirect Emissions

512,838.23tonnes of CO₂e

Total Direct and Energy Indirect Emissions

743,164.94 tonnes of CO₂e

Authorized by

Director

Date: June 12, 2019

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SGS has been contracted by Semiconductor Manufacturing International (Shanghai) Corporation (hereinafter referred to as "CLIENT"), No.18, Zhangjiang Road, China (Shanghai) Pilot Free Trade Zone, Shanghai, P. R. China., for the verification of direct and energy indirect Greenhouse Gas emissions in accordance with

ISO 14064-3:2006

as provided by Semiconductor Manufacturing International (Shanghai) Corporation (hereinafter referred to as "RESPONSIBLE PARTY"), No.18, Zhangjiang Road, China (Shanghai) Pilot Free Trade Zone, Shanghai, P. R. China., in the Greenhouse Gas (GHG) Assertion in the form of GHG Report covering GHG emissions of the period 1st January 2018 to 31st December 2018.

Roles and responsibilities

The management of the RESPONSIBLE PARTY 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 assertion as provided by the RESPONSIBLE PARTY for the period 1st January 2018 to 31st December 2018.

SGS conducted a third party verification of the provided GHG assertion against the requirements of ISO 14064-1:2006 in the period 22nd April 2019 to 24th April 2019. The verification was based on the verification scope, objectives and criteria as agreed between the CLIENT and SGS on 16th April 2019.

Level of Assurance

The level of assurance agreed is that of reasonable assurance.

Scope

The CLIENT has commissioned an independent verification by SGS-CSTC Standards Technical Services Co., Ltd. to assure the reported GHG emissions of RESPONSIBLE PARTY, as arising from Manufacture of Wafer activities, be in conformance with ISO 14064 requirements within the scope of the verification as outlined below. The data and information supporting the GHG assertion were historical in nature.

This engagement covers verification of emission from anthropogenic sources of greenhouse gases included within the organisation's boundary and is based on ISO 14064-3:2006.

- The organizational boundary was established following operational control approach.
- Title or description activities: GHG verification of year 2018 for RESPONSIBLE PARTY.
- Location/boundary of the activities:
 - No.18, Zhangjiang Road, China (Shanghai) Pilot Free Trade Zone, Shanghai, P. R. China.
- Physical infrastructure, activities, technologies and processes of the organization:
 - Manufacture of Wafer.
- GHG sources, sinks and/or reservoirs included: GHG sources as presented in the 2018 GHG Report of the RESPONSIBLE PARTY.
- Types of GHGs included: CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃.
- GWP adopted: IPCC Fifth Assessment Report (AR5).
- GHG information for the following period was verified: 1st January 2018 to 31st December 2018.
- Intended user of the verification statement: Private user.

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 organisation'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 requirements of ISO 14064.

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

The RESPONSIBLE PARTY provided the GHG assertion based on the requirements of ISO14064-1:2006. The GHG information for the period 1st January 2018 to 31st December 2018 disclosing emissions of **743,164.94** tonnes of CO₂ equivalent are verified by SGS to a reasonable level of assurance, consistent with the agreed verification scope, objectives and criteria.

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 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 for the period 1st January 2018 to 31st December 2018 are fairly stated.

We conducted our verification with regard to the GHG assertion of 2018 GHG Report of the RESPONSIBLE PARTY which included assessment of GHG information system 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 ISO14064-1:2006 on GHG quantification and reporting.

This statement shall be interpreted with the GHG assertion of 2018 GHG Report of the RESPONSIBLE PARTY as a whole.

Note: This Statement is issued by SGS-CSTC Standards Technical Services Co., Ltd. ("SGS") under its General Conditions for Greenhouse Gas Validation & Verification Services. The findings recorded hereon are based upon a verification performed by SGS. A full copy of this statement, the findings and the supporting GHG Assertion may be consulted at **No.18, Zhangjiang Road, China (Shanghai) Pilot Free Trade Zone, Shanghai, P. R. China**. 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.