

Greenhouse Gas Verification Statement

The inventory of Greenhouse Gas emissions in year 2018 of

Gong-guan Campus, National Taiwan Normal University

No. 88, Sec. 4, Tingzhou Rd., Wenshan Dist.,
Taipei City 116, Taiwan (R.O.C.)



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

ISO 14064-1:2006

Direct emissions

110.0770 tonnes of CO₂e

Energy indirect emissions

5,168.0356 tonnes of CO₂e

Direct emissions and energy indirect emissions

5,278.113 tonnes of CO₂e

Authorized by

David Huang

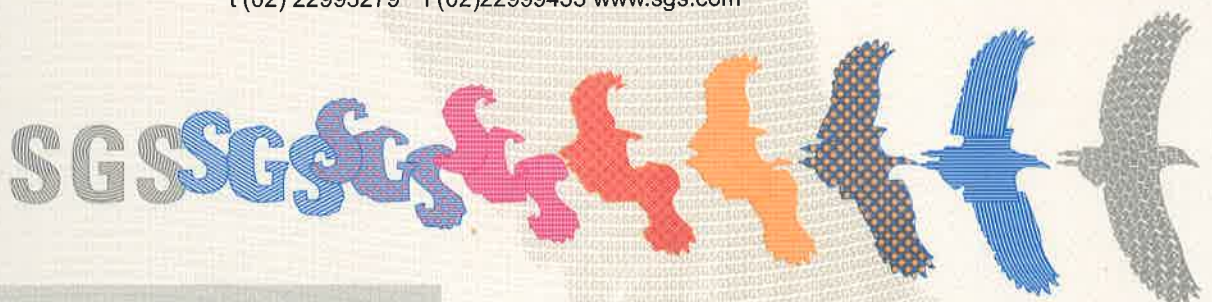
Senior Director

Date: 03 March 2020

Version 1

TGP56A-15-1 2001
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SGS has been contracted by Gong-guan Campus, National Taiwan Normal University (hereinafter referred to as "Gong-guan Campus, NTNU"), No. 88, Sec. 4, Tingzhou Rd., Wenshan Dist., Taipei City 116, Taiwan (R.O.C.) for the verification of direct and indirect Greenhouse Gas emissions in accordance with

ISO 14064-3: 2006

as provided by Gong-guan Campus, National Taiwan Normal University (hereinafter referred to as "Gong-guan Campus, NTNU") · No. 88, Sec. 4, Tingzhou Rd., Wenshan Dist., Taipei City 116, Taiwan (R.O.C.), in the GHG Assertion in the form of GHG report covering GHG emissions of the period 01 January 2018 to 31 December 2018.

Roles and responsibilities

The management of Gong-guan Campus, NTNU 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 2018 to 31 December 2018.

SGS conducted a third party verification of the provided GHG assertion against the principles of ISO 14064-1:2006, ISO 14064-3:2006 in the period 12 February 2020 to 21 February 2020. The verification was based on the verification scope, objectives and criteria as agreed between Gong-guan Campus, NTNU and SGS on 05 November 2019.

Level of Assurance

The level of assurance agreed is that of reasonable assurance.

Scope

Gong-guan Campus, NTNU has commissioned an independent verification by SGS Taiwan of reported GHG emissions of Gong-guan Campus, NTNU arising from academic education activities, to establish conformance with ISO 14064:2006 principles within the scope of the verification as outlined below.

Statement TW20/00022GG, continued

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 Gong-guan Campus, NTNU in year 2018
- Location/boundary of the activities:
 - No. 88, Sec. 4, Tingzhou Rd., Wenshan Dist., Taipei City 116, Taiwan (R.O.C.)
- Physical infrastructure, activities, technologies and processes of the organization: academic education
- GHG sources, sinks and/or reservoirs included: Sources as presented in the inventory spreadsheet provided by Gong-guan Campus, NTNU
- Types of GHGs included: CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃
- The IPCC 2013 AR5 GWP values are applied in this inventory.
- Electricity emission factor: 0.533 kgCO₂e/kwh
(Announced by Bureau of Energy, Ministry of Economic Affairs in 2019)
- Directed actions: NA
- GHG information for the following period was verified: 01 January 2018 to 31 December 2018
- The version of inventory sheet: version 0222
- The version of GHG assertion: version 0222
- 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 14064-1:2006.

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

Gong-guan Campus, NTNU provided the GHG assertion based on the requirements of ISO14064-1:2006. The GHG information for the period 01 January 2018 to 31 December 2018 disclosing emissions of 5,278.113 metric tonnes of CO₂ equivalent and 0.0000 metric tonnes of direct CO₂ 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.

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 for the period 01 January 2018 to 31 December 2018 are fairly stated.

We conducted our verification with regard to the GHG assertion of Gong-guan Campus, NTNU 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 ISO14064-1:2006 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.

Statement TW20/00022GG, continued

This statement shall be interpreted with the GHG assertion of Gong-guan Campus, NTNU as a whole.

Verifier Group

Above statements coincide with auditing process with fairness and impartiality, and aim at the emission of year 2018 of clients.

Lead Verifier:

Alicia Su

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 Gong-guan Campus, NTNU, No. 88, Sec. 4, Tingzhou Rd., Wenshan Dist., Taipei City 116, 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.