



LRQA Independent Assurance Statement

Relating to GlobalWafers Co., Ltd. Taisil Branch's Report for the calendar year 2022

服務條件

本保證聲明書乃為環球晶圓股份有限公司中德分公司所準備。

勞盛股份有限公司台灣分公司(以下簡稱 LRQA)受環球晶圓股份有限公司中德分公司(以下簡稱 GW Taisil)之委託以查證其 2022 日曆年度 (1/1/2022~31/12/2022) 期間溫室氣體盤查報告(發行日期:2023 年 4 月 18 日第二版), 以下簡稱為"溫室氣體盤查報告"。

此溫室氣體盤查報告包含直接、能源間接及其他間接溫室氣體排放。

環球晶圓股份有限公司中德分公司的地理邊界包含其在'新竹縣寶山鄉研新一路 2 號'主要活動包含'矽晶棒和矽晶圓的製造'及相關設施, 溫室氣體排放使用營運控制權。範疇 3 中的類別 5 和 6 排除於報告書中。

Terms of Engagement

This Assurance Statement has been prepared for *GlobalWafers Co., Ltd. Taisil Branch*.

LRQA was commissioned by *GlobalWafers Co., Ltd. Taisil Branch* (GW Taisil) to assure its *GHG Report for the calendar year 2022* (hereafter referred to as "the Report").

The Report relates to direct GHG emissions and energy indirect GHG emissions *and other indirect GHG emissions*.

GlobalWafers Co., Ltd. Taisil Branch's geographical boundary includes its operations located at No. 2, Yanxin 1st Rd., Baoshan Township, Hsinchu County 300093, Taiwan. The main activities of GlobalWafers Co., Ltd. Taisil Branch includes 'Manufacturing of silicon ingots and silicon wafers' and the GHG emissions have been consolidated using Operational control. The following GHG emissions were excluded from the Report:

e.g. category 5 and 6 from scope 3.

管理責任

環球晶圓股份有限公司中德分公司的管理階層為準備、宣告和遵循 ISO 14064-1:2018 準則以及揭露的數據和資訊維持有效的內部控管負責。LRQA 的責任為依據我們與環球晶圓股份有限公司中德分公司間的合約執行查證。

最終的, 溫室氣體盤查報告由環球晶圓股份有限公司中德分公司所核准並負有責任。

Management Responsibility

GlobalWafers Co., Ltd. Taisil Branch's management was responsible for preparing the claim, report and conformity with the criteria ISO 14064-1:2018 and for maintaining effective internal controls over the data and information disclosed. LRQA's responsibility was to carry out an assurance engagement on the Report in accordance with our contract with GlobalWafers Co., Ltd. Taisil Branch.

Ultimately, the Report has been approved by, and remains the responsibility of GlobalWafers Co., Ltd. Taisil Branch.

LRQA 的方法

LRQA 查證已依循 ISO 14064-3:2019 (溫室氣體主張之確證與查證指引之規範), 以提供對環球晶圓股份有限公司中德分公司符合 ISO 14064-1:2018 (組織層級溫室氣體溫室氣體排放與移除之量化及報告附指引之規範)所準備的溫室氣體盤查報告之有限和合理保證查證。

為作成結論, 本保證以抽樣方式執行並涵蓋下列的活動:

- 依溫室氣體盤查報告中所界定的設施設備, 進行現場查訪; 同時審查與溫室氣體排放數據及資料管理相關的過程;
- 訪談組織中對於相關溫室氣體排放數據與紀錄管理與維持之權責人員;
- 查證類別三之上游原料(蒐集至少達 80%採購金額)與下游產品運輸之活動數據, 商務旅行、員工通勤之活動數據彙整
- 查證類別四在購買的產品和服務之活動數據彙整(蒐集至少達 80%採購金額)
- 審查活動數據的來源(合理等級)和原始數據的匯總(有限等級)
- 查證日曆年西元 2022 年度的歷史數據及資料來源。

LRQA's Approach

Our verification has been conducted in accordance with ISO 14064–3:2019, 'Specification with guidance for verification and validation of greenhouse gas statements' to provide limited and reasonable assurance that GHG data as presented in the Report have been prepared in conformance with ISO 14064–1:2018, 'Specification with guidance at GlobalWafers Co., Ltd. Taisil Branch level for quantification and reporting of greenhouse gas emissions and removals.

To form our conclusions the assurance engagement was undertaken as a sampling exercise and covered the following activities:

- conducted site tours of the facilities and reviewed processes related to the control of GHG emissions data and records;
- interviewed relevant staff of GlobalWafers Co., Ltd. Taisil Branch responsible for managing GHG emissions data and records;
- verified at an aggregated level GHG emissions data for Category 3 and 4 from upstream raw materials (collecting at least 80% of the purchase amount) and downstream product transportation, activity data collection for business travel and employee commuting;
- verified at an aggregated level GHG emissions for Category 4 of activity data of purchased products and services (collecting at least 80% of the purchase amount);
- reviewed activity data at the source level (for reasonable level) and summarised source data (for limited level);
- verified historical GHG emissions data and records for the calendar year 2022.

查證等級及實質性

依據雙方合約協定, 本查證聲明書的查證意見基於類別1 & 2基於合理保證等級和5%實質性進行; 類別3 & 4基於有限保證等級和5%實質性進行;

Level of Assurance & Materiality

In accordance with our contract agreement, the assurance was conducted at a reasonable level of assurance at a materiality of 5% for Categories 1 & 2 and at a limited level of assurance at a materiality of 5% for Categories 3 & 4. The opinion expressed in this Assurance Statement has been accordingly formed.

LRQA意見

基於 LRQA 方法, 依據溫室氣體報告書中揭露年西元 2022 年度之全部直接及能源間接的溫室氣體(類別一與類別二)排放總量實質正確, 其他間接溫室氣體排放(類別三四)沒有任何情形引起我們注意到計算沒有實質正確; 溫室氣體盤查報告之準備也符合 ISO 14064-1:2018 (組織層級溫室氣體溫室氣體排放與移除之量化及報告附指引之規範)相關要求

LRQA's Opinion



Based on LRQA's approach,

- The GHG emissions for Categories 1 and 2 disclosed in the Report as summarized in Table 1 below are materially correct.
- Nothing has come to our attention that would cause us to believe that the GHG emissions for Categories 3 and 4 disclosed in the Report as summarized in Table 1 below are not materially correct.

and that the Report has been prepared in conformance with ISO 14064-1:2018.

LRQA 的建議

GlobalWafers Co., Ltd. Taisil Branch 須掌握 IPCC 評估報告中的 GWP 之更新。

LRQA's Recommendations

GlobalWafers Co., Ltd. Taisil Branch should be aware of changing of GWPs in the Assessment Report of the Intergovernmental Panel on Climate Change (IPCC).

Signed

KP Huang

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LRQA Lead Verifier
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Table 1. Summary of GlobalWafers Co., Ltd. Taisil Branch, GHG Emissions Inventory / Report 2022

Scope of GHG emissions 溫室氣體排放的範疇	Tonnes CO₂e
Direct GHG emissions (Category 1) 直接溫室氣體排放 (類別 1)	1,625.0911
Direct GHG emissions from the combustion of biomass (生質燃燒溫室氣體排放)	None
Indirect GHG emissions from imported energy 能源間接溫室氣體排放 (類別 2) (Category 2, Location-based)	134,222.5752
Indirect GHG emissions from imported energy 能源間接溫室氣體排放 (類別 2) (Category 2, Market-based)	None
Indirect GHG emissions from transportation (Category 3) 運輸的間接溫室氣體排放	4,560.4966
Indirect GHG emissions from products used by the organization (Category 4) 產品使用的間接溫室氣體排放	195,801.2348
Indirect GHG emissions associated with the use of products from the organization (Category 5) 使用產品間接溫室氣體排放	Not significant
Indirect GHG emissions from other sources (Category 6) 其他間接溫室氣體排放	Not identified
Location based and Market based are terminologies from Annex E of ISO 14064-1:2018.	

Note 1: Because year 2022 national electricity emission factor had not been published yet, the year 2021 factor published by the Taiwan BOE (Bureau of Energy) on 22 July 2022 was quoted for the calculation.

Note 2: GHG emission figures above are being reported with four decimal places as required by Taiwan EPA

備註 1: 因為 2022 年度國家電力溫室氣體排放係數尚未公告，因此以上溫室氣體排放引用能源局在 2022 年 7 月 22 日公佈之民國 110 年度電力係數作為外購電力之排放係數。

備註 2: 溫室氣體盤放數據相關小數點規定依據環保署規定執行

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