

Independent Verification Opinion

Verification Opinion No.:
C674375-2023-AG-TWN-DNV

Issued Place:
Taipei

Issued Date:
28 June, 2024

This is to verify initiated reporting of Greenhouse Gas Inventory Management Report (2023) of

Chang Wah Technology Co., Ltd.

Scope of Verification

DNV Business Assurance (DNV) has been commissioned by Chang Wah Technology Co., Ltd. ('the Organization') to perform a verification of the greenhouse gas statements of Greenhouse Gas Inventory Management Report (2023) (hereafter the "Inventory Report") in Taiwan, R.O.C. with respect to the sites listed in Appendix A.

The Reporting Boundary for the verification including direct GHG emissions and removals, indirect GHG emissions from imported energy, indirect GHG emissions from transportation, indirect GHG emissions from products used by the Organization. The further descriptions for the Reporting Boundary listed in Appendix B.

Verification Criteria and GHG Programme

The verification was performed on the basis of ISO 14064-1:2018 as well as criteria given to provide for consistent GHG emission identification, calculation, monitoring and reporting. The verification was conducted in accordance with ISO 14066:2011, ISO 14065:2020, ISO14064-3:2019

Verification Opinion

It is DNV's opinion that the Inventory Report (2023), which was published on June 2024 is free from material discrepancies in accordance with the verification criteria identified as stated above. The opinion is decided based on the following approaches,

- For the Direct (Category 1) and Indirect GHG emissions from imported energy (Category 2), the reliability of the information within the Inventory Report (2023) were verified with reasonable level of assurance.
- For the other indirect GHG emissions, the involved information was verified and tested using limited assurance engagement, defined in Inventory Report.

Also, the GHG information as stated in Appendix C has been verified during the process.

Lin, Chien Yu
GHG Verifier

Chien Yu Lin

Place and date:

Taipei, 28 June, 2024

For the issuing office:

DNV Business Assurance Co., Ltd.
29Fl., No. 293, Sec. 2, Wenhua Rd.,
Banqiao District, New Taipei City
220, Taiwan



Management Representative



Verification Opinion No.:
C674375-2023-AG-TWN-DNV

Issued Place:
Taipei

Issued Date:
28 June, 2024

Supplement to Verification Opinion

Process and Methodology

The reviews of the Inventory Report and relevant documents, and the subsequent follow-up interviews have provided DNV with sufficient evidence to determine the fulfilment of stated criteria.

Quantification of Greenhouse Gas Emission

The Inventory Report covering the period 1 January, 2023 to 31 December, 2023, it is DNV's opinion that GHG emissions and removals identified within the Reporting Boundary has been included in the Inventory Report as claimed in accordance with the verification criteria identified as stated above, and results in quantification of GHG emissions that are real, transparent and measurable.

Organizational Boundary of Verification

Financial Control Operational Control Equity Share

GHGs Verified

CO₂ CH₄ N₂O HFCs PFCs SF₆ NF₃

The Quantification of GHG emissions:

Category		Emission (ton CO ₂ e)
Category 1	Direct GHG emissions and removals	1,138.2041
1.1	Stationary combustion emissions	1.9625
1.2	Mobile emissions	8.5450
1.3	Industry process	-
1.4	Fugitive emissions	1,127.6966
Category 2	Indirect GHG emissions from imported energy	15,806.4918
2.1	Indirect emissions from imported electricity	15,806.4918
Category 3	Indirect GHG emissions from transportation	1,077.5026
3.1	Emissions from upstream transport and distribution for goods	769.4095
3.3	Emissions from employee commuting	298.4212
3.5	Emissions from Business travel	9.6719
Category 4	Indirect GHG emissions from products used by an organization	8,640.2708
4.1	Purchased goods	5,272.9091
4.1	Purchase Fuel and Energy Emission (Indirect emissions not include in Cat.1 & Cat.2.)	3,115.7577
4-3	Emissions from the disposal of solid and liquid waste	251.6040
Total		26,662.469

(The Imported Energy Indirect Emissions was calculated based on 2023 electricity emission factor of 0.494 kg CO₂-e/kwh, which was announced by Energy Administration, Ministry of Economic Affairs. The Global Warming Potential (GWP) defined in IPCC AR6 (2023) has been chosen and correctly referred by the Organization.)

Verification Opinion

unmodified modified adverse

Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid. This Verification Opinion is based on the information made available to us and the engagement conditions detailed above. Hence, DNV cannot guarantee the accuracy or correctness of the information. DNV cannot be held liable by any party relying or acting upon this Verification Opinion.

DNV Business Assurance Co., Ltd. 29Fl., No.293, Sec.2, Wenhua Road 220 Ban Chiau Dist., New Taipei City Taiwan TEL: +886-2-82537800, website: <https://www.dnv.com/tw/>

DNV ZNATW-OP-F50, Rev.12, 2024-4