

查證意見書

意見書編碼：
C723203-2023-AP-TWN-DNV

發出日期：
114 年 01 月 03 日

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茲就下列組織之溫室氣體盤查管理報告書(2023 年)的盤查過程，查驗意見結果如下

華城重電股份有限公司

查證範圍

立恩威國際驗證股份有限公司(DNV)承接華城重電股份有限公司(下稱“該組織”)之委託，對該組織陳述於 2023 年溫室氣體盤查管理報告書(下稱“該報告”)中之溫室氣體聲明進行查驗，查驗範圍設定為該報告所涵蓋之盤查邊界：

名稱	地址
華城重電股份有限公司	台中市梧棲區南橫一路 500 號

考慮到溫室氣體報告書的預期用途，間接排放的範圍由該組織預先決定的間接排放重要性準則界定。

查驗準則與溫室氣體方案

- ISO 14064-1:2018
- 本查驗之執行過程遵循 ISO 14066:2011、ISO 14065:2020 與 ISO 14064-3:2019 等標準要求。

查驗意見

依據前述所鑑別的各项查驗準則進行查驗，DNV 認為，2024 年 10 月(最終版)發布的溫室氣體盤查報告不存在不符合上述驗證標準的重大差異。該意見是基於以下方法決定的：

- 對於直接溫室氣體排放和輸入能源的間接溫室氣體排放，該報告中信息的可靠性得到了合理保證水平的驗證。
- 對於其他間接溫室氣體排放所涉及的信息，使用有限保證等級進行驗證和測試。

吳嘉泓
溫室氣體查驗員

吳嘉泓

發出地點與日期：
台北, 114 年 01 月 03 日

代表簽發辦公室：
立恩威國際驗證股份有限公司
新北市板橋區文化路二段 293 號 29 樓

謝振祥

總經理

查證意見書補充內容

過程與方法

DNV 對該報告執行必要之審查程序與各階段訪談，基於所獲得之必要佐證，該報告有足夠的證據來確定符合標準的規定。

溫室氣體排放量的量化過程

該報告的盤查期間涵蓋自 2023 年 1 月 1 日至 2023 年 12 月 31 日，DNV 確信該報告中各項量化過程的結果為真實、透明且可量測。

查驗過程的組織邊界

☐ 財務控制權 ☒ 營運控制權 ☐ 股權持分

查驗溫室氣體類型

☒ CO₂ ☒ CH₄ ☒ N₂O ☒ HFCs ☒ PFCs ☒ SF₆ ☒ NF₃

排放類別		單位: 噸 CO ₂ e
類別 1.	直接排放	25,253.4218
類別 2.	輸入能源間接排放	3,176.2224

組織選擇且正確引用 IPCC AR6(2021)所界定之全球暖化潛勢(the Global Warming Potential, GWP)，其中輸入能源間接排放量係依據經濟部能源署公布之 2023 年電力排碳係數(0.494 公斤 CO₂e/度)計算。

其他間接排放的量化 (噸 CO₂-e) :

間接排放類別	子類別	單位: 噸 CO ₂ e
類別 4.	採購的貨物產生之排放	15,331.5835

查驗結果

☒ 未經修改之查驗意見 ☐ 修改過之查驗意見 ☐ 無法查驗

附錄

附件一

間接排放邊界：

主類別	子類別	邊界
類別 2	2.1 外購電力	-台電電費單
類別 3	由運輸相關過程產生之間接溫室氣體排放*	-非顯著排放源
類別 4	4.1 採購的貨物產生之排放	-採購原料（構成代表性產品原料以重量佔前 70%的原料計算） -採購重量引用入庫重量計算。 -排放係數引用碳足跡資訊網與商用平台係數。
類別 5	由使用組織產品相關之間接溫室氣體排放*	-非顯著排放源
類別 6	其他間接排放源*	-非顯著排放源

備註：華城重電股份有限公司溫室氣體盤查報告書中，依據重大間接溫室氣體排放源鑑別準則，評分結果顯示類別三、五、六為非顯著排放源。

附件二

直接排放個別溫室氣體排放如下：

溫室氣體種類	CO ₂	CH ₄	N ₂ O	HFCs	PFCs	SF ₆	NF ₃	合計
排放量 (公噸 CO ₂ e)	3.4302	14.8038	0.0868	51.1011	0.0000	25,184.0000	0.0000	25,253.4218
佔比 (%)	0.01%	0.06%	0.00%	0.20%	0.00%	99.73%	0.00%	100.00%



Independent Verification Opinion

Verification Opinion No.:
C723201-2023-AG-TWN-DNV

Issued Place:
Taipei

Issued Date:
03 January, 2025

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

Fortune Electric Extra High Voltage Co., Ltd.

Scope of Verification

DNV Business Assurance (DNV) has been commissioned by Fortune Electric Extra High Voltage 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 No. 500, Nanheng 1st Rd., Wuqi Dist. Taichung 435059 Taiwan.

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

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 October 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.

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

Jesse Wu
GHG Verifier

Place and date:
Taipei, 03 January, 2025

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



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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 1st January, 2023 to 31st 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: (ton CO₂e)

Category		Total emissions
Category 1	Direct GHG emissions and removals	25,253.4218
1.1	Stationary combustion emissions	0.0000
1.2	Mobile emissions	3.5355
1.3	Industry process	0.0000
1.4	Fugitive emissions	25,249.8863
Category 2	Indirect GHG emissions from imported energy	3,176.2224
2.1	Indirect emissions from imported electricity	3,176.2224
Category 4	Indirect GHG emissions from products used by an organization	15,331.5835
4.1	Emissions from Upstream purchased goods	15,331.5835
Total		43,761.228

(The Imported Energy Indirect Emissions was calculated based on 2023 electricity emission factor of 0.494 kg CO₂e/kwh, which was announced by Energy Administration, Ministry of Economic Affairs. The Global Warming Potential (GWP) defined in IPCC AR6 (2021) has been chosen and correctly referred by the Organization.)

Verification Opinion

☒ unmodified ☐ modified ☐ adverse

Appendix to Verification Opinion No. C723201-2023-AG-TWN-DNV

APPENDIX A

The Reporting Boundary of Fortune Electric Extra High Voltage Co., Ltd.'s Greenhouse Gas Inventory Management Report (2023)

Category	Subcategory	Boundary
Category 2	2.1 Imported electricity	-The amount of greenhouse gas emissions produced by the input of electricity. -Bill and invoice from suppliers (TPC).
Category 3	Indirect GHG emissions from Transport	Not Significant Emissions.
Category 4	4.1 Upstream purchased goods	-Upstream (cradle-to-gate) emissions from during the production of goods by suppliers representing the top 70% of the annual procurement amount of our company (from cradle to gate), include elec. -Weight of in-coming goods and raw material report. -emission factor quoted from EPA carbon footprint database emission factor and Ecoinvent v3.10.
Category 5*	Indirect GHG emissions associated with the use of products from the Organization	Not Significant Emissions.
Category 6*	Indirect GHG emissions from other sources	Not Significant Emissions.

NOTE: Category 3, 5 and 6 were evaluated as Not Significant Emissions base on Fortune Electric Extra High Voltage Co., Ltd.'s significant emission identification process reported in GHG inventory report.

APPENDIX B

For direct emissions and removals, quantified separately for each GHG as below:

GHG Type	CO ₂	CH ₄	N ₂ O	HFCs	PFCs	SF ₆	NF ₃	Total
Emissions (ton CO ₂ e)	3.4302	14.8038	0.0868	51.1011	0.0000	25,184.0000	0.0000	25,253.4218
Proportion (%)	0.01%	0.06%	0.00%	0.20%	0.00%	99.73%	0.00%	100.00%