

Independent Verification Opinion

Verification Opinion No.:
C757465-2024-AG-TWN-DNV

Issued Place and Date:
Taipei, 06 May, 2025

Page 1 of 3

This is to verify initiate reporting of Greenhouse Gas Inventory Management Report (2024) of

Nuvoton Technology Corporation

Scope of Verification

DNV Business Assurance (DNV) has been commissioned by Nuvoton Technology Corporation (hereafter "the Organization") to perform a verification of the greenhouse gas statements of Greenhouse Gas Inventory Management Report (2024) (hereafter the "Inventory Report") in Taiwan, R.O.C. with respect to the sites listed as below.

Site	Address
Nuvoton Technology Corporation	No. 4, Creation Rd. III, Hsinchu Science Park, Taiwan
Taipei Sales Office	No.192, Jingye 1st Rd., Zhongshan Dist., Taipei City, Taiwan
Zhubei Building	No.539, Sec. 2, Wenxing Rd., zhubei City, Hsinchu County, Taiwan
Tainan Sales Office	No.111, Wudang Rd., Guiren Dist., Tainan City, Taiwan

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 and indirect GHG emissions associated with the use of products from 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 Financial Supervisory Commission Sustainable Development Roadmap Scheme in Taiwan and ISO 14064-1:2018, CNS 14064-1:2021/GHG Protocol as well as criteria given to provide for consistent GHG emission identification, calculation, monitoring and reporting. The verification was conducted in accordance with ISO 14066:2023, ISO 14065:2020, ISO14064-3:2019.

Verification Opinion

It is DNV's opinion that the Inventory Report (2024), which was published on April 17, 2025 (V. 3), 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/Scope 1) GHG emissions and Indirect GHG emissions from imported energy (Category/Scope 2), the reliability of the information within the Inventory Report (2024) was verified with reasonable level of assurance.
- For the other indirect GHG emissions, the involved information was verified with limited level of assurance.

GHG Verifier :
Celine Wang



For the issuing office:
DNV Business Assurance Co., Ltd.



Management Representative

The Appendix forms an integral part of this Certificate, which shall be invalid when used without the Appendix.

Lack of fulfilment of conditions as set out in the Verification Agreement may render this Verification 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.

The issuing office : 29Fl., No. 293, Sec. 2, Wenhua Rd., Banqiao District, New Taipei City 220, Taiwan Tel.: +886-2-82537800. <https://www.dnv.com/tw/>

DNV ZNATW-OP-F50, Rev.14, 2025-03

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, 2024 to 31st December, 2024, 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 Management Control; ☒ Operational Management Control; ☐ Equity Share

GHGs Verified

☒ CO₂ ☒ CH₄ ☒ N₂O ☒ HFC_s ☒ PFC_s ☒ SF₆ ☒ NF₃

The Global Warming Potential (GWP) defined in IPCC AR6(2021) has been chosen and correctly referred by the Organization.

Category /Scope	Nuvoton Technology Corporation	Taipei Sales Office	Zhubei Building	Tainan Sales Office
1: Direct emissions	22,433.2356	1.8792	18.7934	2.9619
2: Imported energy indirect emissions*	33,297.9279	83.4915	147.1377	241.9882
Total	55,731.1635	85.3707	165.9311	244.9501

(*The Imported Energy Indirect Emissions was calculated based on 2024 electricity emission factor of 0.474 kg CO₂e/kwh, which was announced by Energy Administration, Ministry of Economic Affairs.)

Quantification of Emissions (in tonnes CO₂e)

The Global Warming Potential (GWP) defined in IPCC AR5(2013) has been chosen and correctly referred by the Organization.

Category /Scope	Nuvoton Technology Corporation	Taipei Sales Office	Zhubei Building	Tainan Sales Office
1: Direct emissions	20,522.8715	1.9488	19.4300	3.0716
2: Imported energy indirect emissions*	33,297.9279	83.4915	147.1377	241.9882
Total	53,820.7994	85.4403	166.5677	245.0598

(*The Imported Energy Indirect Emissions was calculated based on 2024 electricity emission factor of 0.474 kg CO₂e/kwh, which was announced by Energy Administration, Ministry of Economic Affairs.)

Quantification of other indirect emissions (in tonnes CO₂e)

ISO 14064-1 Category	GHG Protocol Category	Nuvoton Technology Corporation	Taipei Sales Office	Zhubei Building	Tainan Sales Office	Total
Transportation (Category 3)	4: Upstream transportation and distribution	156.0212	0.0001	0.1143	0.3670	156.5026
	6: Business travel	40.6443	45.5381	210.4709	11.0869	307.7402
	7: Employee commuting	486.1960	40.7992	283.1639	76.6616	886.8207
	9: Downstream transportation and distribution	2,955.9755	-	-	-	2,955.9755
Products used by organization (Category 4)	1: Purchased goods and services	111,740.8782	0.0000	0.0000	0.0000	111,740.8782
	2: Capital goods	804.4229	0.0071	31.6682	0.8098	836.9080
	3: Fuel-and-energy-related activities (not included in Scope 1 or 2)	6,975.0019	17.4973	30.6160	50.2451	7,073.3603
	5: Waste generated in operations	90.1867	0.0000	0.0000	0.0000	90.1867
	8: Upstream leased assets	-	-	-	-	-
The use of products from the organization (Category 5)	10: Processing of sold products	-	-	-	-	-
	11: Use of sold products	-	-	-	-	-
	12: End-of-life treatment of sold products	-	-	-	-	-
	13: Downstream leased assets	70.5660	-	-	-	70.5660
	14: Franchises	-	-	-	-	-
	15: Investment	20807.2000	-	-	-	20807.2000
Total		144,127.0927	103.8418	556.0333	139.1704	144,926.1382

Type of Opinion

☒ unmodified ☐ modified ☐ adverse

APPENDIX A

The Reporting Boundary of Nuvoton Technology Corporation Greenhouse Gas Inventory Management Report (2024)

Indirect Emissions Category	Subcategory	Boundary
Transportation (Category 3)	4 Upstream transportation and distribution	Transportation of selected purchased goods.
	6 Business travel	Transportation of employees for business-related activities
	7 Employee commuting	Transportation of employees travelling between company and residence place. The factory shuttle buses were included.
	9 Downstream transportation and distribution	Downstream transportation and distribution to next-level customers
Products used by organization (Category 4)	1 Purchased goods and services	The overall emissions from mining and manufacturing of raw material purchase.
	2 Capital goods	Upstream (cradle-to-gate) emissions of purchased capital goods.
	3 Fuel-and-energy-related activities (not included in Scope 1 or 2)	Upstream emissions of purchased fuels (Diesel Oil, Motor Gasoline and Natural Gas) and electricity.
	5 Waste generated in operations	Disposal or treatment of waste.
The use of products from the organization (Category 5)	13 Downstream leased assets	Cat /Scope 1 and 2 emissions generated by leased assets.
	15 Investment	Category/Scope 1 and 2 emissions generated by investment companies without substantial control, split by investment proportion. But only one company (UNITED INDUSTRIAL GASES CO., LTD.) data was received in 2024.

The scope of other indirect emissions (other than Imported Energy with specified/limited list of sources) was defined by the Organization's own pre-determined criteria for significance of indirect emissions, considering the intended use of the GHG inventory.