



Independent Verification Opinion

Verification Opinion No.:
C692877-2023-AG-TWN-TAF

Issued Place:
Taipei

Issued Date:
20 May, 2024

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

YANG MING MARINE TRANSPORT CORPORATION

Scope of Verification

DNV Business Assurance (DNV) has been commissioned by YANG MING MARINE TRANSPORT CORPORATION ('the Organization') to perform a verification of the greenhouse gas statements of Greenhouse Gas Inventory Report (2023) (hereafter the "Inventory Report") in Taiwan, R.O.C. with respect to the sites listed in Appendix B.

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 C.

Verification Criteria and GHG Programme

The verification was performed on the basis of ISO 14064-1:2018 and 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 14066:2011, ISO 14065:2020, ISO14064-3:2019

Verification Opinion

It is DNV's opinion that the Inventory Report (2023), which was published on May 2024 (Ver. 2), 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 tested and verified with a limited level of assurance.

Celine Wang
GHG Verifier

Place and date:

Taipei, 20 May, 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



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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 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

Quantification of GHG emissions in Direct and Imported Energy Indirect Emission Source: (tonnes CO₂e)

| Site | Direct Emissions (Category 1) | Imported Energy Indirect Emissions (Category 2) | Total |
|---|----------------------------------|---|-----------------------|
| Yang Ming Marine Transport Corp. CiDu Headquarter | 57,100.0871 | 1,233.0846 | 58,333.1717 |
| Yang Ming Marine Transport Corp. Taiwan Business Department | 1.1131 | 129.8335 | 130.9466 |
| Yang Ming Marine Transport Corp. Keelung Sinyi Building | 12.0036 | 302.5634 | 314.5670 |
| Keelung Container Terminal | 270.6170 | 1,022.6700 | 1,293.2870 |
| Yang Ming Marine Transport Corp. Taichung Branch | 2.2012 | 25.1278 | 27.3290 |
| Yang Ming Marine Transport Corp. Taichung Wuqi Office | 3.0999 | 14.1823 | 17.2822 |
| Yang Ming Marine Transport Corp. Kaohsiung Branch | 25.2587 | 486.3860 | 511.6447 |
| Yang Ming Marine Transport Corp. Kaohsiung Cisian Office | 2.2950 | 14.5290 | 16.8240 |
| 94 Ships | 4,136,607.9434 | 5,981.5575 | 4,142,589.5009 |
| Total | 4,194,024.6190 | 9,209.9341 | 4,203,234.5531 |

Quantification of other indirect emissions

| Category | GHG protocol /Subcategory | tonnes CO ₂ e |
|---|---|--------------------------|
| Transportation (Category 3) | Cat. 4 Upstream transportation and distribution | 349.5758 |
| | Cat. 6 Business travel | 1,460.1282 |
| | Cat. 7 Employee commuting | 727.8558 |
| Products used by organization (Category 4) | Cat. 2 Capital goods | 722,372.1138 |
| | Cat. 3 Fuel-and-energy-related activities (not included in Category 1 or 2) | 750,716.0433 |
| | Cat. 5 Waste generated in operations | 155.4545 |
| The use of products from the organization (Category 5) | Cat. 13 Downstream leased assets | 33,782.3770 |
| Total quantified greenhouse gas emissions in Category 3,4 & 5 | | 1,509,563.5484 |

*: Unless other indicated, the 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 AR5 (2014) has been choose 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.

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

Appendix to Verification Opinion No. C692877-2023-AG-TWN-TAF

APPENDIX A

Quantification of GHG emission intensity :

| ISO 14064-1 | GHG protocol | ton CO ₂ -e | ton CO ₂ -e/ million NTD revenue |
|--------------|--------------|------------------------|---|
| Category 1 | Scope 1 | 4,194,024.6190 | 73.4581 |
| Category 2 | Scope 2 | 9,209.9341 | 0.1613 |
| Category 3-5 | Scope 3 | 1,509,563.5484 | 26.4399 |

revenue data draw from Yang Ming Annual Report : NTD 57,094,096,000

APPENDIX B

The greenhouse gas statements of YANG MING MARINE TRANSPORT CORPORATION Greenhouse Gas Inventory Report (2023) with respect to the following sites:

| Site | Address |
|---|---|
| Yang Ming Marine Transport Corp. CiDu Headquarter | No. 271, Ming De 1st Road, Cidu District, Keelung 20464 Taiwan |
| Yang Ming Marine Transport Corp. Keelung Sinyi Building | B1, 3, 4, 6, 7, 8, 10, 11, 12F, No. 150, Sin 1st Road, Sinyi District, Keelung 20145 Taiwan |
| Keelung Container Terminal | No. 1, Zhongshan 4th Road, Zhongshan District, Keelung 20343 Taiwan |
| Yang Ming Marine Transport Corp. Taiwan Business Department | 2 & 3F, No. 243 Sec. 2, Chongqing N. Road., Datong District, Taipei 10359 Taiwan |
| Yang Ming Marine Transport Corp. Taichung Branch | 20th Fl-1., No. 241, Sec. 3, Wenxin Road, Xitun District, Taichung 40753 Taiwan |
| Yang Ming Marine Transport Corp. Taichung Wuqi Office | 7F.-6, No.82-1, Bade Rd., Wuqi Dist., Taichung City 43542 Taiwan |
| Yang Ming Marine Transport Corp. Kaohsiung Branch | No. 999, Sinsheng Road Siaogang District Kaohsiung 81234 Taiwan |
| Yang Ming Marine Transport Corp. Kaohsiung Cisian Office | 1-3F, No. 41, Qixian 3rd Rd., Yancheng Dist., Kaohsiung City 803009, Taiwan |
| Ships | 94 ships which the organization has operational control |

APPENDIX C

The scope of indirect emissions, other than Imported Energy of YANG MING MARINE TRANSPORT CORPORATION Greenhouse Gas Inventory Report (2023)

| Indirect Emissions Category | GHG protocol /Subcategory | Boundary |
|---|---|--|
| Transportation | Cat. 4 Upstream transportation and distribution | Transportation of the new containers purchased. |
| | Cat. 6 Business travel | Transportation of employees for business-related activities |
| | Cat. 7 Employee commuting | Transportation of employees travelling between company and residence place. |
| Products used by organization | Cat. 2 Capital goods | Upstream (cradle-to-gate) emissions of purchased new containers, ships and equipment. |
| | Cat. 3 Fuel-and-energy-related activities (not included in Category 1 or 2) | Upstream emissions of purchased fuels & electricity, including ships use shore electricity in global terminal. |
| | Cat. 5 Waste generated in operations | Disposal or treatment of waste, including the transportation of waste |
| The use of products from the organization | Cat. 13 Downstream leased assets | Operation of ships owned by Organization (lessor) and leased to other entities, not included in Category 1 and 2 – reported by lessor. |

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



APPENDIX D

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) | 4,070,906.4879 | 1,847.4097 | 62,262.8429 | 59,007.8785 | 0.0000 | 0.0000 | 0.0000 | 4,194,024.6190 |
| Proportion | 97.06% | 0.04% | 1.48% | 1.41% | 0.00% | 0.00% | 0.00% | 100.00% |

