

# Independent Verification Opinion

**Verification Opinion No.:**  
C689931-2023-AG-TWN-DNV

**Issued Place:**  
Taipei

**Issued Date:**  
13 August, 2024

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

## Wan Hai Lines Ltd

### Scope of Verification

DNV Business Assurance (DNV) has been commissioned by Wan Hai Lines 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, ROC 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 and indirect GHG emissions associated with the use of products from 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 14 June, 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 verified and tested using agreed-upon procedures, AUP, defined in Inventory Report.

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

Makoto Chen  
GHG Verifier



Place and date:  
**Taipei, 13 August, 2024**

For the issuing office:

**DNV Business Assurance Co., Ltd.**  
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**Banqiao District, New Taipei City**  
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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<sup>st</sup> January, 2023 to 31<sup>st</sup> 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

CO<sub>2</sub>  CH<sub>4</sub>  N<sub>2</sub>O  HFCs  PFCs  SF<sub>6</sub>  NF<sub>3</sub>

The Quantification of GHG emissions and removals in Direct and Indirect Emission Source:

Category	Direct and indirect GHG emissions categorization*	Emission (ton CO <sub>2</sub> e)
1	Direct GHG emissions and removals**	4,454,874.835
2	Indirect GHG emissions from imported energy	19,982.107
<b>Total greenhouse gas emissions and removals in Category 1 &amp; 2</b>		<b>4,474,856.942</b>
3	Indirect GHG emissions from transportation	—
4	I Indirect GHG emissions from products used by the Organization	1,991,247.650
5	Indirect GHG emissions associated with the use of products from the Organization	—
<b>Total greenhouse gas emissions and removals in Category 3,4 &amp; 5</b>		<b>1,991,247.650</b>

\*: The Imported Energy Indirect Emissions was calculated based on 2023 electricity emission factor of 0.494 kg CO<sub>2</sub>-e/kwh, which was announced by Bureau of Energy, Ministry of Economic Affairs. The Global Warming Potential (GWP) defined in IPCC AR6 (2021) has been chosen and correctly referred by the Organization.

\*\* : The details subcategory of each category could be refer later in the Report.

### Verification Opinion

unmodified  modified  adverse