



# IMPARTIALITY VERIFICATION OPINION

Verification Opinion No.:  
C635166-2022-AG-TWN-DNV

Issued date:  
29 November, 2023

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This is to verify initiate reporting of Greenhouse Gas Inventory Management Report (2022) of

## UKL ENTERPRISE CO., LTD.

### Scope of Verification

DNV Business Assurance (DNV) has been commissioned by UKL ENTERPRISE CO., LTD. (‘the Organization’) to perform a verification of the greenhouse gas statements of Greenhouse Gas Inventory Management Report (2022) (hereafter the ‘Inventory Report’) in Taiwan 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 14065:2013, ISO14064-3:2019

### Verification Opinion

It is DNV’s opinion that the Inventory Report (2022), which was published on 29 November, 2023(ver.4), 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 (2022) 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 C have been verified during the process.

Arbin Chang  
GHG Verifier

Place and date:  
Taipei, 29 November, 2023

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

## 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, 2022 to 31st December, 2022, it is DNV's opinion that the Inventory Report 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

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*	Emissions and removals verified, tonnes CO <sub>2</sub> e
1	Direct emissions and removals*	1.9695
2	Indirect GHG emissions from imported energy	29.3035
Total greenhouse gas emissions and removals in Category 1 & 2		31.2730
3	Upstream transportation and distribution	96.1844
	Emissions from employee commuting include emissions	
	Emissions from business travel	
4*	Emissions from the production of purchased energy (electricity and oil), but not included in Categories 1 and 2.	7.4300
	Emissions from capital goods	
	Emissions from asset usage	
Total greenhouse gas emissions and removals in Category 3 & 4		103.6144
Total greenhouse gas emissions		134.887

\*: Unless otherwise stated, indirect emissions are:

1. The 2022 electricity emission factor announced by the Energy Bureau of the Ministry of Economic Affairs is 0.495 kg CO<sub>2</sub>e/kwh.
2. The Global Warming Potential (GWP) defined in IPCC AR6 (2023) has been choose and correctly referred by the Organization.
3. The scope of indirect emissions, other than Imported Energy with specified/limited list of sources, was defined by UKL's own pre-determined criteria for significance of indirect emissions, considering the intended use of the GHG inventory. Although the product manufacturing outsourcing process is the major source of indirect emissions, it was not included in the inventory.

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

### Verification Opinion

Unmodified  
 Modified  
 adverse

Appendix A to Verification Opinion No. C635166-2022-AG-TWN-DNV

## APPENDIX A

The greenhouse gas statements of UKL ENTERPRISE CO., LTD. Greenhouse Gas Inventory Management Report (2022) with respect to the following sites:

Site	Address
臺北總公司 Taipei Head Office	新北市汐止區新臺五路一段 97 號 25 樓之 7、8 (部分) 及 9 (部分) (25 F.-7、8(part)*、9(part)*、, No. 97, Sec. 1, Xintai 5th Rd., Xizhi Dist., New Taipei City 221416, Taiwan (R.O.C.))

\*: Unless otherwise stated: The Taipei headquarters office of UKL ENTERPRISE CO., LTD. is a leased office space, and a portion of the 25th floor (8th and 9th sections) is used by another company and is not included in the inventory scope. All other service and information equipment are within the operational control scope.

## APPENDIX B

For direct emissions and removals, quantified separately for each GHG as below, in tonnes of CO<sub>2</sub>-e:

CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	HFCs	PFCs	SF <sub>6</sub>	NF <sub>3</sub>	TOTAL
1.7275	0.0174	0.0544	0.1702	0.0000	0.0000	0.0000	1.9695
87.7135%	0.8828%	2.7643%	8.6394%	0.00%	0.00%	0.00%	100.00%

Indirect emission-Imported energy emission :

CONSUMPTION(kWh)	EMISSION FACTOR	UNIT	EMISSION (TON CO <sub>2</sub> E)
59.1989	0.4950000000	kg CO <sub>2</sub> e/ kWh	29.3035

\*: Unless otherwise stated, indirect emissions are:

- The 2022 electricity emission factor announced by the Energy Bureau of the Ministry of Economic Affairs is 0.495 kg CO<sub>2</sub>e/kwh.