

# Independent Verification Opinion

**Verification Opinion No.:**  
C767916-2024-AG-TWN-DNV

**Issued Place and Date:**  
Taipei, 25 June, 2025

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

## Kedge Construction Co., Ltd.

### Scope of Verification

DNV Business Assurance (DNV) has been commissioned by Kedge Construction Co., Ltd. (hereafter "the Organization") to perform a verification of the greenhouse gas statements in the Greenhouse Gas Inventory Report (2024) (hereafter the "Inventory Report") in Taiwan, R.O.C. with respect to the Organization and its active contracted construction sites or projects, based on the data checked at the representative site as follows. Refer to Appendix C for further details.

Site	Address
Kedge Construction Co., Ltd.	6F., No. 131, Section 3, Heping East Road, Daan District, Taipei City, Taiwan (Representative site)

The reporting boundaries for the verification includes 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. Refer to Appendix A for further details on the reporting boundaries.

### Verification Criteria and GHG Programme

The verification was performed on the basis of Financial Supervisory Commission's Sustainable Development Roadmap Scheme and ISO 14064-1:2018 (CNS 14064-1:2021) 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, ISO 14064-3:2019.

### Verification Opinion

It is DNV's opinion that the Inventory Report (2024), published on June 10, 2025 (Second Version), 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 GHG emissions and removals (Category 1) and indirect GHG emissions from imported energy (Category 2), the reliability of the information presented in the Inventory Report (2024) has been verified with a reasonable level of assurance.
- For the other categories of indirect GHG emissions, the relevant information has been verified with a limited level of assurance.

Also, the GHG information stated in the appendices has been verified during the process.

GHG Verifier:  
Yu Chung Chen



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



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 Emissions

The Inventory Report covers the period from January 1, 2024, to December 31, 2024. It is DNV's opinion that the GHG emissions and removals identified within the reporting boundaries have been included in the Inventory Report, as claimed, in accordance with the verification criteria stated above, and results in quantification of GHG emissions that are real, transparent and measurable

### Organizational Boundaries 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  HFC<sub>s</sub>  PFC<sub>s</sub>  SF<sub>6</sub>  NF<sub>3</sub>

### Quantification of GHG Emissions (in tonnes CO<sub>2</sub>e)

The Global Warming Potential (GWP) defined in Intergovernmental Panel on Climate Change's (IPCC) Sixth Assessment Report (AR6) (2021) has been chosen and correctly referred by the Organization.

Category	Emissions (in tonnes CO <sub>2</sub> e) *
1: Direct GHG emissions and removals	821.7509
2: Indirect GHG emissions from imported energy **	2,103.1667
3: Indirect GHG emissions from transportation	4,371.0000
4: Indirect GHG emissions from products used by organization ***	253,867.9599
5: Indirect GHG emissions associated with the use of products from the organization	--
6: Indirect GHG emissions from other sources	--
<b>Total</b>	<b>261,163.8775</b>

\* The results reflect the GHG emissions of the Organization and its active contracted construction sites, which cover the period from the commencement of work to the issuance of the occupancy permit for building construction projects, and from the commencement of work to the completion of the final inspection for civil engineering projects.

\*\* The indirect emissions from imported energy, was calculated based on the 2024 electricity carbon emission factor of 0.474 kg CO<sub>2</sub>e/kWh, announced by the Energy Administration, Ministry of Economic Affairs.

\*\*\* Specific categories of materials associated with indirect emissions from purchased goods are included in the inventory and calculations, determined based on the project type and with reference to the Manual of Low Embodied-carbon Building Rating System published by the Architecture and Building Research Institute, Ministry of the Interior. Refer to Appendix I of the Inventory Report for details.

### Type of Opinion

Unmodified  Modified  Adverse

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 Opinion 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

## APPENDIX A

The reporting boundaries of Kedge Construction Co., Ltd.'s Inventory Report (2024), with indirect GHG emissions defined and decided by the Organization's own pre-determined criteria for significance, are as follows:

Category	Reporting Boundaries
Category 1: Direct GHG emissions and removals	Emissions and removals from the greenhouse gas sources and sinks owned or controlled by the Organization within its organizational boundaries.
Category 2: Indirect GHG emissions from imported energy	2.1 Emissions from imported electricity.
Category 3: Indirect GHG emissions from transportation	3.1 Emissions from upstream transportation and distribution for goods (construction materials specified and machineries) 3.3 Emissions from employee commuting 3.5 Emissions from business travels
Category 4: Indirect GHG emissions from products used by organization	4.1 Emissions from purchased good (construction materials specified, municipal water, and fuel- and energy-related activities including diesel, gasoline, natural gas, liquefied petroleum gas and electricity) 4.3 Emissions from the disposal of solid and liquid waste (general waste and industrial waste, with wastewater not specifically included) 4.5 Emissions from the use of services that are not described in the above subcategories (materials purchased and machineries operated by the Organization's subcontractors)
Category 5: Indirect GHG emissions associated with the use of products from the organization	<i>No significant emissions identified by the Organization in this category.</i>
Category 6: Indirect GHG emissions from other sources	<i>No significant emissions identified by the Organization in this category.</i>

The scope of indirect emissions in the specified/limited list above, was defined and decided by the Organization's own pre-determined criteria for the significance of indirect emissions, considering the intended use of the GHG inventory.

## APPENDIX B

The quantification results of GHG emissions in Kedge Construction Co., Ltd.'s Inventory Report (2024), consolidated in accordance with the indirect GHG emissions defined and decided by the Organization's own pre-determined criteria, are as follows:

Category	Subcategory	Emissions (tonnes CO <sub>2</sub> e)
Category 1: Direct GHG emissions and removals	1.1 Direct emissions from stationary combustion	340.5064
	1.2 Direct emissions from mobile combustion	168.7644
	1.3 Direct process emissions and removals arise from industrial processes	0.0000
	1.4 Direct fugitive emissions from the release of greenhouse gases in anthropogenic systems	312.4801
Category 2: Indirect GHG emissions from imported energy	2.1 Indirect emissions from imported electricity	2,103.1667
Category 3: Indirect GHG emissions from transportation	3.1 Emissions from upstream transportation and distribution for goods	4,132.7037
	3.3 Emissions from employee commuting	173.7648
	3.5 Emissions from business travels	64.5315
Category 4: Indirect GHG emissions from products used by organization	4.1 Emissions from purchased goods	236,441.1226
	4.3 Emissions from the disposal of solid and liquid waste	2,638.9309
	4.5 Emissions from the use of services that are not described in the above subcategories	14,787.9064
Category 5: Indirect GHG emissions associated with the use of products from the organization	<i>No significant emissions identified by the Organization in this category.</i>	--
Category 6: Indirect GHG emissions from other sources	<i>No significant emissions identified by the Organization in this category.</i>	--
<b>Total</b>		<b>261,163.8775</b>

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.

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## APPENDIX C

The organizational boundaries of Kedge Construction Co., Ltd.'s Inventory Report (2024) encompass the following sites and its active contracted construction projects:

	Site/Construction Project Name	Location*
1	根基營造股份有限公司總公司	臺北市大安區
2	C212 標臺南車站地下化工程	臺南市北區
3	C611 標嘉義計畫鐵路高架橋及橋下平面道路工程	嘉義市西區
4	C612 標嘉北高架車站、嘉義高架車站及北回歸線車站工程	嘉義市西區
5	台 61 線後龍觀海大橋及西湖溪橋改建工程	苗栗縣後龍鎮
6	C613 標水上車輛基地工程	嘉義縣水上鄉
7	新北市泰山中山段社會住宅 (一期) 暨國軍職務宿舍新建統包工程	新北市泰山區
8	臺北市松山區敦化段四小段 363-1 地號等 5 筆土地公辦都更案	臺北市松山區
9	冠德建設新北市中和區大智段 749 地號等 2 筆土地土地開發辦公大樓	新北市中和區
10	臺中市北屯區東山段新建案	臺中市北屯區
11	臺中市北屯區松昌段新建案	臺中市北屯區
12	冠德建設臺北市萬華區直興段一小段 0510-0000 號等 24 筆土地新建工程	臺北市萬華區
13	JLG081 委建契約 + 中和高中站 (LG08) 捷運開發區 6 用地土地開發案	新北市中和區
14	冠德建設台電南港案 (AR-1-2) 都更開發商辦大樓 (集合住宅) 新建工程	臺北市南港區
15	冠德建設新北市板橋區府中段 472 地號等 9 筆土地都市更新案	新北市板橋區
16	桃園會展中心統包工程	桃園市中壢區
17	台積電中科先進封測五廠新建工程 (AP5B CUP shell package)	臺中市大雅區
18	台積電竹南先進封測六廠二期新建工程 (AP6B FAB/CUP)	苗栗縣竹南鎮
19	台積電竹南先進封測六廠二期新建工程 (AP6B Office)	苗栗縣竹南鎮
20	台積電嘉科先進封測七廠一期新建工程 (AP7P1 FAB shell package)	嘉義縣太保市
21	台積電高雄二十二廠一期 SUPPORT 新建工程	高雄市楠梓區
22	艾司摩爾新北廠新建工程	新北市林口區
23	大成集團企業總部工程	臺南市歸仁區
24	聯發科銅鑼園區廠房第一期新建工程	苗栗縣銅鑼鄉
25	台積電南科十八廠公 25 土方運棄	臺南市新市區

\* The above list indicates the locations of the Organization and its active contracted construction sites, with certain projects represented by the locations of their respective site offices.