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VERIFICATION OPINION OF GREENHOUSE GAS

The Verification Body
 of TÜV SÜD Asia Ltd., Taiwan Branch
 attests that the GHG inventory reported by

Chunghwa Telecom Group's Subsidiaries

No. 21-3, Sec. 1, Xinyi Rd., Zhongzheng Dist., Taipei City, 100012, Taiwan., R.O.C.

In compliance with
ISO 14064-1:2018

Total Emissions: **116,424.294** tonnes CO₂e, **including**
 - **Direct Emissions (Category 1):** **4,625.8437** tonnes CO₂e
 - **Indirect Emissions (Category 2):** **13,066.1556** tonnes CO₂e
 - **Indirect Emissions (Category 3 to 6):** **98,732.2948** tonnes CO₂e
 (GWP values are consist with IPCC-AR6 2021)

Organizational Boundaries: Operational Control

Covered Period: 2023-01-01 to 2023-12-31

Level of Assurance: Reasonable Assurance (Category 1 and 2)
 Limited Assurance (Category 3 to 6)

Materiality threshold: The GHG emissions below 5% for deviations

Verification Report No.: 61.027.24.002.01

Opinion Registration No.: TÜV 24 02 5010929190. 02

Issue Date: 2024-03-29

TÜV SÜD Asia Ltd., Taiwan Branch
 TÜV SÜD Group

Explanations to the Verification Opinion

Brief description of the Verification process

TÜV SÜD Asia Ltd. Taiwan Branch (hereinafter referred to as TÜV SÜD) commissioned to verify GHG emissions for Chunghwa Telecom Group's Subsidiaries (hereinafter referred to as CHT Group's Subsidiaries). Lead Verifier Jane Lin and Verifier May Tseng from TÜV SÜD conducted the verification activities, for the reporting period 2024-02-29 to 2024-03-22, for the reporting period 2023-01-01 to 2023-12-31. Evaluating the conformity of GHG related verification specification for the organization, including the principles and requirements of the standards or GHG scheme that applied to the verification scope. This review is based on the intended area of application, the goals and criteria as agreed upon with the commissioning on 2024-02-29.

On-site Verification

Lead Verifier Jane Lin and Verifier May Tseng from TÜV SÜD conducted the on-site visit verification activities of responsible at the Chunghwa Telecom Co., Ltd head quarter in Taipei, Taiwan (site address: No. 21-3, Sec. 1, Xinyi Rd., Zhongzheng District, Taipei City, 100), on the 2024-03-06, 2024-03-07, 2024-03-08, 2024-03-11 for Stage 1 verification, and 2024-03-19, 2024-03-20, 2024-03-22 for Stage 2 verification.

In particular, the two following sites were visited:

- Site1: Honghwa International Co., Ltd. Head Office.
(site address: No. 168, Minzu Rd., Banqiao Dist., New Taipei City 22065, Taiwan)
- Site2: International Integrated Systems, Inc.
(site address: 6F., No.7, Sec. 2, Xianmin Blvd., Banqiao Dist. ; New Taipei City 22041, Taiwan)

The following site was remotely verified:

- Site1: Chunghwa Leading Photonics Tech Co., Ltd.
(site address: No. 6, Ziqiang 7th Rd., Zhongli Dist., Taoyuan City 32063, Taiwan)

Roles and responsibilities

The determination and reporting of GHG emissions are the sole responsibility of our client.

Our role and responsibility as a verification body was to independently verify the adequacy of the GHG emissions reported by our client, as well as the underlying systems and processes for data collection, analysis, and control, in accordance with the requirements of ISO 14064-3.

Standards for data processing

ISO 14064-1:2018 ("Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals").

Scope of application / System boundaries

The GHG reporting includes the inventory for the calendar year 2023 of CHT Group's Subsidiaries. The operational control approach was chosen, which means that all operations are included in the GHG accounting over which the company has full authority to introduce and implement its operating policies. The organizational boundary of this greenhouse gas inventory includes the subsidiaries of the Chunghwa Telecom Co., Ltd., totaling 18 subsidiaries. Chunghwa Telecom Co., Ltd has excluded Senao International Co., Ltd., and CHIEF Telecom Inc. from the organizational boundaries.

Please refer to Appendix 1, which includes the operational control subsidiaries list within the CHT Group's Subsidiaries 2023 GHG inventory.

The following emission sources were identified and associated GHG emissions accounted:

Reporting Boundaries		GHG
Categories		Emissions(tCO ₂ e)
Category 1: Direct GHG emissions	Stationary combustion	0.0070
	Mobile combustion	3,792.0431
	Industrial processes (anthropogenic systems)	22.1179
	Fugitive (anthropogenic systems)	811.6757
	Land use, land use change and forestry	N/A
Total of Category 1		4,625.8437
Category 2: Indirect GHG emissions from imported energy	Imported electricity (Location-Based)	13,066.1556
	Imported electricity (Market-Based)	13,066.1556
Total of Category 2 (Location-Based)		13,066.1556



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Reporting Boundaries		GHG Emissions(tCO ₂ e)
Categories		
Category 3: Indirect GHG emissions from transportation	3.1 Upstream transportation and distribution	557.0032
	3.2 Downstream transportation and distribution	N/A
	3.3 Employee commuting	3,187.5672
	3.4 Client and visitor transport	N/A
	3.5 Business travels	2977.0393
Category 4: Indirect GHG emissions from products used by organization	4.1 Purchased goods	66,520.7076
	4.2 Capital goods	2,508.0100
	4.3 Disposal of solid and liquid waste	549.0593
	4.4 Upstream leased assets	57.3623
	4.5 Use of other services	N/A
Category 5: Indirect GHG emissions associated with the use of products from the organization	5.1 Use of sold products	1,965.6017
	5.2 End-of-life treatment of sold products	79.5519
	5.3 Downstream leased assets	14,640.0043
	5.4 Investments	5,690.3880
Category 6: Other Sources	-	N/A
Total of Category 3 to 6		98,732.2948

Please refer to Appendix 2, which includes the emissions of the CHT Group's Subsidiaries 2023 GHG Inventory, and Appendix 3 with the categorization of GHG emissions according to the Greenhouse Gas Protocol.

No biogenic emissions or removals were present at the time of the verification

No direct GHG removals or storages were present at the time of the verification

Relevant emissions in the balance

The greenhouse gas inventory contains the specified greenhouse gases with information as CO₂ equivalents. No further GHG as such were identified.

Standard for the Verification

ISO 14064-3:2019 ("Specification with guidance for verification and validation of GHG statements")



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Objectives of the Verification

The assessment was performed with due regard to our impartiality in a risk-based approach. Rational procedures were applied to reach reliable and reproducible conclusions. Within the scope of our verification, a sufficient amount of suitable evidence needed to be collected and explained in the verification by representatives of CHT Group's Subsidiaries and persons appointed for this purpose. This was to enable sufficient traceability of the information presented with the GHG opinion. However, during the verification process, the data collection for category 3 to category 6 is sourced from the accounting system, which introduces a notable level of uncertainty. Moreover, the factors utilized by the EEIO and WIOT, rely on assumptions. Therefore, we are compelled to issue a qualified opinion regarding category 3 to category 6.

Criteria

The data review was conducted according to the following criteria: Relevance, completeness, accuracy, transparency of information and consistency. The assessment of alternatives according to the quantification model used was carried out according to the principle of conservatism.

Agreed level of assurance

Reasonable assurance of category 1 and category 2, Limited assurance of category 3 to category 6.

Materiality threshold

The materiality threshold required of the verification was considered to 5%.

Comment:

The materiality threshold is a benchmark for our assessment of data gaps, misstatements and non-conformities remaining at the end of our review. Gaps, omissions, inaccuracies identified during the review that result in quantities greater than the established thresholds constitute a "material deviation", i.e. non-conformities, that must be addressed before a verification opinion can be issued.



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Methods of Verification

- Document review and reconciliation with documentation requirements.
- Random sample checks of supporting evidence and database values
- Review of data and information systems and methodologies for collection, aggregation,
- analysis and verification of information used to determine GHG emissions
- Plausibility checks
- Strategic analysis and risk assessment based on the submitted GHG report
- Independent technical review through a lead verifier that was not participating in the verification.

Conclusions

With our review of the greenhouse gas reporting of CHT Group's Subsidiaries (file name: "GHG Verification Report at Organization Level-CHT Group's Subsidiaries_2023"), dated 2024-03-29, we conclude that, in all material respects, the greenhouse gas emissions and removals are presented fairly and factually in accordance with the specifications and standards used as a basis here.

Based on the results of our verification process, we confirm the reported emissions and the achievement of the agreed level of assurance and compliance with materiality thresholds.

Our verification opinion is only to be interpreted together with the report on greenhouse gases of CHT Group's Subsidiaries.

This opinion is issued in accordance with the agreement reached with the client and within the framework of our validation and verification regulations. The results documented here are based on our internal documentation for this verification with project no. 718867375.

Note: This Opinion is issued, on behalf of the client, by TÜV SÜD under its general conditions for Greenhouse Gas Verification Service Description. The findings recorded hereon are based upon an audit performed by TÜV SÜD. A full copy of this opinion, the findings and the supporting GHG Assertion may be consulted at the organization. To check the validity of this opinion please call (+886-2-2898-6818). This Opinion does not relieve client from compliance with any bylaws, federal, national or regional acts and regulations or with any guidelines issued pursuant to such regulations. Stipulations to the contrary are not binding on TÜV SÜD and TÜV SÜD shall have no responsibility vis-à-vis parties other than its client.



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Appendix 1: List of Subsidiaries Under Operational Control Included in the CHT Group's Subsidiaries 2023 GHG Inventory

No.	Subsidiaries Name	Registered Address
1	Honghwa International Co., Ltd.	8 F., No. 88, Sec. 4, Xinyi Rd., Da'an Dist., Taipei City 106097, Taiwan
2	Chunghwa Leading Photonics Tech Co., Ltd.	6, Ziqiang 7th Rd., Zhongli Dist., Taoyuan City 32063, Taiwan
3	International Integrated Systems, Inc.	6F., No.7, Sec. 2, Xianmin Blvd., Banqiao Dist. ; New Taipei City 22041, Taiwan
4	Chunghwa Telecom Japan Co., Ltd.	Level 5, Asagawa Building 2-1-17 Shiba Daimon, Minato-Ku, Tokyo 105-0012 Japan
5	Chunghwa Telecom Singapore Pte., Ltd.	331 North Bridge Road, #03-05 Odeon Towers, Singapore 188720
6	Chunghwa Telecom Global, Inc.	2107 N. 1st St. Ste.580, San Jose, CA 95131, USA
7	Donghwa Telecom Co., Ltd.	Unit A,7/F., Tower A, Billion Centre, No.1 Wang Kwong Road, Kowloon Bay, Kowloon, Hong Kong
8	Smartfun Digital Co., Ltd.	8F, No. 88, Sec. 4, Xinyi Rd., Da'an Dist., Taipei City 106096, Taiwan
9	Spring House Entertainment Tech. Inc.	10 F., No. 106, Zhouzi St., Neihu Dist., Taipei City 114688, Taiwan
10	Chunghwa Investment Co., Ltd	8F, No. 88, Sec. 4, Xinyi Rd., Da'an Dist., Taipei City 106096, Taiwan
11	Chunghwa Telecom (Thailand) Co., Ltd.	33/4, The 9th Towers, Grand Rama 9, Tower B, 25th Fl., Unit No. TNBO 2503 Rama 9 Road Huaykwang District, Bangkok 10310, Thailand
12	Chunghwa System Integration Co., Ltd.	1, No.2, Lane 8, 85 Lane, Section 3, Muzha Road Wenshan Dist. Taipei City, 116. Taiwan
13	Chunghwa Telecom Vietnam Co., Ltd.	Room 703, 7 th Floor, 3D VN, Duy Tan St., Dich Vong Hau Ward, Cau Giay Dist., Hanoi City, Vietnam
14	Chunghwa Sochamp Technology Inc.	Rm. 3B38, 3 F., No. 5, Sec. 5, Xinyi Rd., Xinyi Dist., Taipei City 110202, Taiwan
15	CHT Security Co., Ltd.	8F, No. 88, Sec. 4, Xinyi Rd., Da'an Dist., Taipei City 106096, Taiwan
16	LIGHT ERA DEVELOPMENT CO.,LTD	1F, No. 89-1, Sec. 4, Xinyi Rd., Da'an Dist., Taipei City 106096, Taiwan
17	CHYP Multimedia Marketing & Communications Co., Ltd	9F, No. 89-1, Sec. 4, Xinyi Rd., Da'an Dist., Taipei City 106096, Taiwan
18	Prime Asia Investments Group Ltd.	No operation site



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Appendix 2: Emissions of the CHT Group's Subsidiaries 2023 **GHG Inventory**

No.	Subsidiaries Name	Category 1 Emissions (tCO ₂ e)	Category 2 Emissions (tCO ₂ e)	Category 3-6 Emissions (tCO ₂ e)	Total Emissions (tCO ₂ e)
1	Honghwa International Co., Ltd.	4,333.3645	10,418.9426	10,284.5221	25,036.829
2	Chunghwa Leading Photonics Tech Co., Ltd.	24.3967	1,097.1012	1,547.7943	2,669.292
3	International Integrated Systems, Inc.	115.4856	340.9019	34,299.7687	34,756.156
4	Chunghwa Telecom Japan Co., Ltd.	2.8758	33.3208	57.6086	93.805
5	Chunghwa Telecom Singapore Pte., Ltd.	0.4522	91.2934	34.0731	125.819
6	Chunghwa Telecom Global, Inc.	3.5506	18.3644	145.9196	167.835
7	Donghwa Telecom Co., Ltd.	-	22.3883	69.9770	92.365
8	Smartfun Digital Co., Ltd.	1.8595	54.7326	176.0486	232.641
9	Spring House Entertainment Tech. Inc.	3.9543	100.7322	147.8397	252.526
10	Chunghwa Investment Co., Ltd.	9.3070	35.9325	5,723.0207	5,768.260
11	Chunghwa Telecom (Thailand) Co., Ltd.	13.1253	2.2728	64.0364	79.435
12	Chunghwa System Integration Co., Ltd.	44.9717	238.0411	27,034.9843	27,317.997
13	Chunghwa Telecom Vietnam Co., Ltd.	0.8621	8.9873	13.8943	23.744
14	Chunghwa Sochamp Technology Inc.	15.7809	135.2716	57.9181	208.971
15	CHT Security Co., Ltd.	35.0132	217.7390	1,497.5487	1,750.301
16	LIGHT ERA DEVELOPMENT CO.,LTD	2.2683	46.7953	15,115.5312	15,164.595
17	CHYP Multimedia Marketing & Communications Co., Ltd	18.5760	203.3386	2,461.8094	2,683.724
18	Prime Asia Investments Group Ltd.	-	-	-	-
Total Emissions		4,625.8437	13,066.1556	98,732.2948	116,424.294



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Appendix 3: GHG emissions according to the Greenhouse Gas Protocol Categories

Category of GHG Protocol		Corresponding category to ISO 14064-1:2018	GHG Emissions(tCO ₂ e)
Scope 1		Category 1:Direct GHG emissions	4,625.8437
Scope 2		Category 2:Indirect GHG emissions from imported energy (Market-Based)	13,066.1556
Scope 3		Category 3:Indirect GHG emissions from transportation Category 4:Indirect GHG emissions from products used by organization Category 5:Indirect GHG emissions associated with the use of products from the organization Category 6:Other Sources	98,732.2948
Scope 3 Category:			
1	Purchased goods and services	Category 4.1 Purchased goods and services	62,990.7574
2	Capital goods	Category 4.2 Capital goods	2,508.0100
3	Fuel- and energy-related activities(not included in scope 1 or scope 2)	Category 4.1 Fuel- and energy-related activities	3,529.9502
4	Upstream transportation and distribution	Category 3.1 Upstream transportation and distribution	557.0032
5	Waste generated in operations	Category 4.3 Waste generated in operations	549.0593
6	Business travels	Category 3.2 Business travels	2,977.0393
7	Employee commuting	Category 3.3 Employee commuting	3,187.5672
8	Upstream leased assets	Category 4.4 Upstream leased assets	57.3623
9	Downstream transportation and distribution	Category 3.4 Downstream transportation and distribution	N/A
10	Processing of sold products	Not in the inventory	N/A
11	Use of sold products	Category 5.1 Use of sold products	1,965.6017
12	End-of-life treatment of sold products	Category 5.2 End-of-life treatment of sold products	79.5519
13	Downstream leased assets	Category 5.3 Downstream leased assets	14,640.0043
14	Franchises	Not in the inventory	N/A
15	Investments	Category 5.4 Investments	5,690.3880