

溫室氣體查驗意見

2023 年溫室氣體排放資訊

中華開發金融控股股份有限公司

臺北市松山區敦化北路 135 號 8/12/13 樓



經本公司依據 ISO 14064-3:2019 完成查驗並符合下列標準要求

ISO 14064-1:2018

直接溫室氣體排放量

79.7652 公噸二氧化碳當量

間接溫室氣體排放量

1,177.3519 公噸二氧化碳當量

直接與間接溫室氣體總排放量

1,257.117 公噸二氧化碳當量

簽署人



鮑柏宇

管理與保證事業群副總裁

日期: 2024年05月22日

版次:1

TGP56B-15-1 2401

台灣檢驗科技股份有限公司

新北市五股區(新北產業園區)五工路 136 之 1 號

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查驗意見編號 TW24/00310GG, 接續

【全廠/集團各類別溫室氣體排放量】

單位：公噸二氧化碳當量

報告邊界			溫室氣體排放量
類別	內容說明		
直接溫室氣體排放	固定燃燒直接排放		0.0000
	移動燃燒直接排放		63.9766
	工業製程直接製程排放及移除		0.0000
	人為系統中溫室氣體釋放產生直接逸散排放		15.7886
	土地利用變更和森林直接排放和移除		0.0000
間接溫室氣體排放	輸入能源溫室氣體排放	外購電力之排放	885.9053
	運輸溫室氣體排放	上游採購商品(影印紙) 影印機維修人員之通勤 員工商務旅行(飛機、高鐵、火車、計程車) 郵局寄送包裹	39.1868
	組織使用產品溫室氣體排放	外購能源之上游生產含運輸(電力、汽油、柴油) 生活垃圾最終處置 上游租賃(車用冷媒)	252.2598
	使用來自於組織產品溫室氣體排放	NA	-
	其他來源溫室氣體排放	NA	-
直接與間接溫室氣體總排放量			1,257.117

【各公司/廠區各類別溫室氣體排放量】

單位：公噸二氧化碳當量

公司/廠區	直接溫室氣體排放量	間接溫室氣體排放量		溫室氣體排放量總和
	類別一	類別二	類別三~六	
中華開發金融控股股份有限公司	49.6280	543.0245	157.5299	750.182
中華開發資本(股)公司	21.4423	214.0761	74.1643	309.683
凱基證券投資信託股份有限公司	2.0974	44.2063	22.4979	68.802
中華開發資產管理(股)公司	2.0146	21.1342	7.0983	30.247
中華開發資本管理顧問(股)公司	4.5829	42.2812	22.8900	69.754
開發創新管理顧問(股)公司	0.0000	21.1830	7.2662	28.449

台灣檢驗科技股份有限公司(以下簡稱SGS)，經與中華開發金融控股股份有限公司(以下簡稱開發金控)，臺北市松山區敦化北路135號8/12/13樓，達成雙邊協議，依據ISO 14064-3:2019之要求執行直接與間接溫室氣體排放量之查驗，查驗意見內容說明如下：

角色與責任

- 開發金控管理階層確保組織溫室氣體資訊系統之發展、紀錄維護及文件化程序已符合標準要求，負責評估、決定及報告溫室氣體排放量資訊。
- 簽約時間：SGS 秉持第三方查驗單位之準則，依據 2023 年 11 月 01 日簽訂雙邊協議
- 查驗準則：
 - ISO 14064-1:2018 溫室氣體—第 1 部：組織層級溫室氣體排放與移除之量化及報告附指引之規範
- 查驗期間：2024 年 03 月 20 日至 2024 年 04 月 11 日

查驗範圍

- 溫室氣體排放量資訊涵蓋週期：2023 年 01 月 01 日至 2023 年 12 月 31 日
- 包含廠區：

廠區	活動範圍地理位置
中華開發金融控股股份有限公司	臺北市松山區敦化北路 135 號 8/12/13 樓 台北市松山區南京東路四段 1 號 10 樓 臺北市南港區三重路 19-3 號 8 樓
中華開發資本(股)公司	臺北市松山區敦化北路 135 號 12 樓 臺北市南港區三重路 19-3 號 8 樓 臺北市南港區三重路 19-11 號 1 樓 台北市中山區明水路 700 號 10 樓
凱基證券投資信託股份有限公司	台北市中山區明水路 698 號 1、2 樓
中華開發資產管理(股)公司	臺北市松山區敦化北路 135 號 8 樓
中華開發資本管理顧問(股)公司	臺北市松山區敦化北路 135 號 12 樓
開發創新管理顧問(股)公司	臺北市南港區三重路 19-11 號 1 樓

- 排放溫室氣體種類：二氧化碳(CO₂)、甲烷(CH₄)、氧化亞氮(N₂O)、氫氟碳化物(HFCs)、全氟碳化物(PFCs)、六氟化硫(SF₆)、三氟化氮(NF₃)
- 全球暖化潛勢(GWP)引用 IPCC 2021 第六次評估報告之全球暖化潛勢值
- 排放係數資料庫來源：
 - 直接溫室氣體排放：溫室氣體排放係數管理表 6.0.4
 - 間接溫室氣體排放：
 - 輸入能源之電力引用經濟部能源局 2023 年公布之 2022 年電力排放係數: 0.495 公斤二氧化碳當量/度計算
 - 二級資料庫引用產品碳足跡資訊網、ICAO
- 保證等級：依據查驗準則及雙邊協議執行查驗程序，針對開發金控於溫室氣體聲明所提查驗證據顯示
 - 類別一及類別二之未違反實質性差異門檻，符合主管機關認可之合理保證等級。
 - 類別三至六為有限保證等級。
- 實質性差異門檻判斷準則：5%
- 盤查清冊版本次：113.04.11
- 盤查報告書版本次：113.04.11
- 查驗意見之預期使用者：金融監督管理委員會/組織自行使用

查驗目標

SGS獨立客觀的取得支持溫室氣體聲明揭露資訊的佐證，確保報告資訊符合準確性、完整性、一致性及透明度之準則，其內容包含錯誤或遺漏之項目。

結論

SGS 採用以風險評估為基礎之方法，確保並控管溫室氣體排放資訊揭露風險；規劃及執行查驗流程，包含行前評估、取樣計畫、證據之蒐集，取得查驗意見需要之資訊、說明及相關佐證，確保溫室氣體聲明中的現場溫室氣體排放量無實質的錯誤聲明。

- 查驗數據結果：
 - 溫室氣體總排放量為 1,257.117 公噸二氧化碳當量
 - 生質燃燒之二氧化碳排放量為 0.0000 公噸二氧化碳當量

【全廠/集團各類別溫室氣體排放量】

單位：公噸二氧化碳當量

報告邊界		溫室氣體排放量
類別	內容說明	
直接溫室氣體排放	固定燃燒直接排放	0.0000
	移動燃燒直接排放	63.9766

查驗意見編號 TW24/00310GG, 接續

報告邊界			溫室氣體排放量
類別	內容說明		
	工業製程直接製程排放及移除		0.0000
	人為系統中溫室氣體釋放產生直接逸散排放		15.7886
	土地利用變更和森林直接排放和移除		0.0000
間接溫室氣體排放	輸入能源溫室氣體排放	外購電力之排放	885.9053
	運輸溫室氣體排放	上游採購商品(影印紙)； 影印機維修人員之通勤； 員工商務旅行(飛機、高鐵、火車、計程車)； 郵局寄送包裹	39.1868
	組織使用產品溫室氣體排放	外購能源之上游生產含運輸(電力、汽油、柴油) 生活垃圾最終處置 上游租賃(車用冷媒)	252.2598
	使用來自於組織產品溫室氣體排放	NA	-
	其他來源溫室氣體排放	NA	-
直接與間接溫室氣體總排放量			1,257.117

【各公司/廠區各類別溫室氣體排放量】

單位：公噸二氧化碳當量

公司/廠區	直接溫室氣體排放量	間接溫室氣體排放量		溫室氣體排放量總和
	類別一	類別二	類別三~六	
中華開發金融控股股份有限公司	49.6280	543.0245	157.5299	750.182
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中華開發資本管理顧問(股)公司	4.5829	42.2812	22.8900	69.754
開發創新管理顧問(股)公司	0.0000	21.1830	7.2662	28.449

- 查驗意見：SGS 根據下述狀況，提出修正後無保留意見之查驗意見。
 - 查驗者有充分且適當的證據支持實質的排放量、移除量或儲存。
 - 查驗者針對實質的排放量、移除量或儲存採取適當的準則。
 - 當查驗者擬依賴相關管制時，管制之有效性已經過評估。
 - 查驗者採用 ISO 14064-1:2018 準則，經查驗有以下發現事項，然經調整修正後，無產生實質性錯誤。
 - 部分活動數據填寫錯誤及係數引用錯誤，經修正後符合現況。
- 保留限制：電力活動數據：以帳單月份進行收集 12 個月的數據。

保密性聲明

此報告及附件可能包含屬於開發金控之機密資訊，未經開發金控書面同意，其他個人、團體或公司禁止自行複製或發行。

利益衝突迴避聲明

此報告及附件內容完全依照主管機關之標準方法與程序等相關規定，秉持公正、誠實進行查驗作業。絕無虛偽不實，如有違反，就政府機構所受損失願負連帶賠償責任之外，並接受主管機關依法令所為之行政處分及刑事處罰。

所有查驗人員瞭解如自身受政府機關委任從事公務，亦屬於刑法上之公務員，並瞭解刑法上圖利罰、公務員登載不實偽造公文書及貪污治罪條例之相關規定，如有違反，亦為刑法及貪污治罪條例之適用對象，願受最嚴厲之法律制裁。

本公司與受查驗單位並無財務投資之關係，且符合主管機關對利益衝突迴避之要求。如有違反前述事實情事，經主管機關查證屬實時，此報告及附件內容願接受主管機關判定為無效之處分。

查驗團隊

上述意見係查驗團隊依據公正之查驗過程所提出之意見。

主導查驗員：

呂政書

查驗員：

孔予萱

曾明志

查驗員：

紀元婷

備註：本查驗意見遵照 SGS 溫室氣體查驗服務條款要求 http://www.sgs.com/terms_and_conditions.htm，意見內容由台灣檢驗科技股份有限公司依據溫室氣體聲明之查驗結果進行編製，業經客戶同意後發行。本查驗意見非用以解除客戶遵守組織章程、全國或者地方法令，以及任何被發佈國際指南章程之責任；客戶與 SGS 彼此為獨立之個體，客戶非受 SGS 約束，在此 SGS 除客戶之外毋須代表其面對其他組織團體。

溫室氣體查驗意見

2023 年溫室氣體排放資訊

凱基商業銀行股份有限公司

台北市松山區敦化北路 135 號



經本公司依據 ISO 14064-3:2019 完成查驗並符合下列標準要求

ISO 14064-1:2018

直接溫室氣體排放量

238.2943 公噸二氧化碳當量

間接溫室氣體排放量

7,969.4094 公噸二氧化碳當量

直接與間接溫室氣體總排放量

8,207.704 公噸二氧化碳當量

簽署人



鮑柏宇

管理與保證事業群副總裁

日期: 2024年05月20日

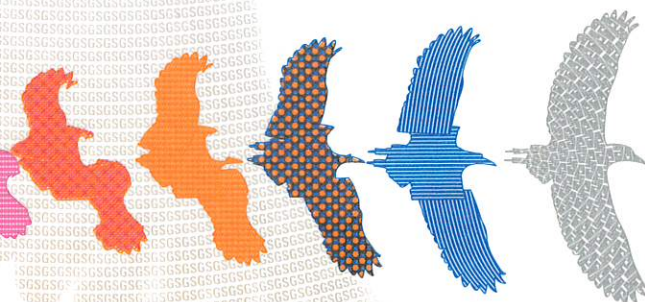
版次:1

TGP56B-15-1 2401

台灣檢驗科技股份有限公司

新北市五股區(新北產業園區)五工路 136 之 1 號

t (02) 22993279 f (02)22999453 www.sgs.com



查驗意見編號 TW24/00309GG, 接續

【全廠/集團各類別溫室氣體排放量】

單位：公噸二氧化碳當量

報告邊界			溫室氣體排放量
類別	內容說明		
直接溫室氣體排放	固定燃燒直接排放		18.8780
	移動燃燒直接排放		45.0918
	工業製程直接製程排放及移除		-
	人為系統中溫室氣體釋放產生直接逸散排放		174.3245
	土地利用變更和森林直接排放和移除		-
間接溫室氣體排放	輸入能源溫室氣體排放	電力之排放	5,759.0618
	運輸溫室氣體排放	1. 上游採購商品(影印紙) 2. 影印機維修人員之通勤 3. 員工商旅(飛機、高鐵、火車、計程車) 4. 信用卡及帳單運輸至郵局	86.9299
	組織使用產品溫室氣體排放	1. 能源物品製造階段(電力、汽油、柴油、天然氣) 2. 外設ATM使用之電力 3. 廢棄物運輸和處理 4. 郵局寄送包裹	2,116.2114
	使用來自於組織產品溫室氣體排放	1. 產品使用(信用卡) 2. 產品最終處理(信用卡廢棄處理)	7.2063
	其他來源溫室氣體排放	NA	-
直接與間接溫室氣體總排放量			8207.704

【各公司/廠區各類別溫室氣體排放量】

單位：公噸二氧化碳當量

公司/廠區	直接溫室氣體排放量	間接溫室氣體排放量		溫室氣體排放量總和
	類別一	類別二	類別三~六	
凱基銀行股份有限公司	236.6825	5696.2917	2,186.7473	8,119.722
華開租賃股份有限公司	1.6118	62.7701	23.6003	87.982

台灣檢驗科技股份有限公司(以下簡稱SGS)，經與凱基商業銀行股份有限公司(以下簡稱凱基銀行)，台北市松山區敦化北路135號，達成雙邊協議，依據ISO 14064-3:2019之要求執行直接與間接溫室氣體排放量之查驗，查驗意見內容說明如下：

角色與責任

- 凱基銀行管理階層確保組織溫室氣體資訊系統之發展、紀錄維護及文件化程序已符合標準要求，負責評估、決定及報告溫室氣體排放量資訊。
- 簽約時間：SGS 秉持第三方查驗單位之準則，依據 2023 年 01 月 05 日簽訂雙邊協議
- 查驗準則：
 - ISO 14064-1:2018 溫室氣體—第 1 部：組織層級溫室氣體排放與移除之量化及報告附指引之規範
- 查驗期間：2024 年 04 月 01 日至 2024 年 04 月 18 日

查驗範圍

- 溫室氣體排放量資訊涵蓋週期：2023 年 01 月 01 日至 2023 年 12 月 31 日
- 包含廠區：參閱附錄 A
- 排放溫室氣體種類：二氧化碳(CO₂)、甲烷(CH₄)、氧化亞氮(N₂O)、氫氟碳化物(HFCs)、全氟碳化物(PFCs)、六氟化硫(SF₆)、三氟化氮(NF₃)
- 全球暖化潛勢(GWP)引用 IPCC 2021 第 6 次評估報告之全球暖化潛勢值
- 排放係數資料庫來源：
 - 直接溫室氣體排放：溫室氣體排放係數管理表 6.0.4
 - 間接溫室氣體排放：
 - 輸入能源之電力引用經濟部能源署 2023 年公布之 2022 年電力排放係數: 0.495 公斤二氧化碳當量/度計算
 - 二級資料庫引用產品碳足跡資訊網、ICAO
- 保證等級：依據查驗準則及雙邊協議執行查驗程序，針對凱基銀行於溫室氣體聲明所提查驗證據顯示
 - 類別一及類別二之未違反實質性差異門檻，符合主管機關認可之合理保證等級。
 - 類別三至六為有限保證等級。
- 實質性差異門檻判斷準則：5%
- 盤查清冊版本次：2024.04.18
- 盤查報告書版本次：2024.04.18
- 查驗意見之預期使用者：金融監督管理委員會/組織自行使用

查驗目標

SGS獨立客觀的取得支持溫室氣體聲明揭露資訊的佐證，確保報告資訊符合準確性、完整性、一致性及透明度之準則，其內容包含錯誤或遺漏之項目。

結論

SGS 採用以風險評估為基礎之方法，確保並控管溫室氣體排放資訊揭露風險；規劃及執行查驗流程，包含行前評估、取樣計畫、證據之蒐集，取得查驗意見需要之資訊、說明及相關佐證，確保溫室氣體聲明中的現場溫室氣體排放量無實質的錯誤聲明。

- 查驗數據結果：
 - 溫室氣體總排放量為 8207.704 公噸二氧化碳當量
 - 生質燃燒之二氧化碳排放量為 0.000 公噸二氧化碳當量

【全廠/集團各類別溫室氣體排放量】

單位：公噸二氧化碳當量

報告邊界		溫室氣體排放量	
類別	內容說明		
直接溫室氣體排放	固定燃燒直接排放	18.8780	
	移動燃燒直接排放	45.0918	
	工業製程直接製程排放及移除	-	
	人為系統中溫室氣體釋放產生直接逸散排放	174.3245	
	土地利用變更和森林直接排放和移除	-	
間接溫室氣體排放	輸入能源溫室氣體排放	電力之排放	5,759.0618
	運輸溫室氣體排放	1.上游採購商品(影印紙) 2.影印機維修人員之通勤 3.員工商旅(飛機、高鐵、火車、計程車) 4.信用卡及帳單運輸至郵局	86.9299
	組織使用產品溫室氣體排放	1.能源物品製造階段(電力、汽油、柴油、天然氣) 2.外設ATM使用之電力 3.廢棄物運輸和處理 4.郵局寄送包裹	2,116.2114

查驗意見編號 TW24/00309GG, 接續

報告邊界			溫室氣體排放量
類別		內容說明	
	使用來自於組織產品溫室氣體排放	1.產品使用(信用卡) 2.產品最終處理(信用卡廢棄處理)	7.2063
	其他來源溫室氣體排放	NA	-
直接與間接溫室氣體總排放量			8207.704

【各公司/廠區各類別溫室氣體排放量】

單位：公噸二氧化碳當量

公司/廠區	直接溫室氣體排放量	間接溫室氣體排放量		溫室氣體排放量總和
	類別一	類別二	類別三~六	
凱基銀行股份有限公司	236.6825	5696.2917	2,186.7473	8,119.722
華開租賃股份有限公司	1.6118	62.7701	23.6003	87.982

- 查驗意見：SGS 根據下述狀況，提出修正後無保留意見之查驗意見。
 - 查驗者有充分且適當的證據支持實質的排放量、移除量或儲存。
 - 查驗者針對實質的排放量、移除量或儲存採取適當的準則。
 - 當查驗者擬依賴相關管制時，管制之有效性已經過評估。
 - 查驗者採用 ISO 14064-1:2018 準則，經查驗有以下發現事項，然經調整修正後，無產生實質性錯誤。
 - 部分活動數據填寫錯誤及係數引用錯誤，經修正後符合現況。
- 保留限制：電力活動數據：以帳單月份進行收集 12 個月的數據。

保密性聲明

此報告及附件可能包含屬於凱基銀行之機密資訊，未經凱基銀行書面同意，其他個人、團體或公司禁止自行複製或發行。

利益衝突迴避聲明

此報告及附件內容完全依照主管機關之標準方法與程序等相關規定，秉持公正、誠實進行查驗作業。絕無虛偽不實，如有違反，就政府機構所受損失願負連帶賠償責任之外，並接受主管機關依法令所為之行政處分及刑事處罰。

所有查驗人員瞭解如自身受政府機關委任從事公務，亦屬於刑法上之公務員，並瞭解刑法上圖利罰、公務員登載不實偽造公文書及貪污治罪條例之相關規定，如有違反，亦為刑法及貪污治罪條例之適用對象，願受最嚴厲之法律制裁。

本公司與受查驗單位並無財務投資之關係，且符合主管機關對利益衝突迴避之要求。如有違反前述事實情事，經主管機關查證屬實時，此報告及附件內容願接受主管機關判定為無效之處分。

查驗團隊

上述意見係查驗團隊依據公正之查驗過程所提出之意見。

主導查驗員：

呂政書

查驗員：

李德偉

孔宇萱

查驗員：

夏聖顯

紀元婷

備註：本查驗意見遵照 SGS 溫室氣體查驗服務條款要求 http://www.sgs.com/terms_and_conditions.htm，意見內容由台灣檢驗科技股份有限公司依據溫室氣體聲明之查驗結果進行編製，業經客戶同意後發行。本查驗意見非用以解除客戶遵守組織章程、全國或者地方法令，以及任何被發佈國際指南章程之責任；客戶與 SGS 彼此為獨立之個體，客戶非受 SGS 約束，在此 SGS 除客戶之外毋須代表其面對其他組織團體。

附錄 A

名稱(凱基銀行)	地址
中和大樓	新北市中和區景平路 188 號 3 樓、5 樓
中華開發金控總部	臺北市敦化北路 135 號 9~11 樓、18 樓
南港大樓	臺北市南港區三重路 19-3 號 8 樓
中山分行	臺北市中山區中山北路一段 109 號
忠孝分行	臺北市大安區忠孝東路四段 270 號
三重分行	新北市三重區重陽路三段 192 號
台中分行	臺中市西區臺灣大道二段 220 號
台南分行	臺南市中西區西門路二段 351 號
高雄分行	高雄市苓雅區四維三路 80 號
城東大樓	臺北市中山區南京東路三段 224 號
板橋分行	新北市板橋區民生路三段 10 號
桃園分行	桃園市桃園區南華街 80 號
中壢分行	桃園市中壢區中央東路 13 之 1 號
北高雄分行	高雄市三民區民族一路 878 號
新莊分行	新北市新莊區思源路 238 號
左營分行	高雄市左營區博愛二路 368 號
員林分行	彰化縣員林市莒光路 266 號
敦南分行	臺北市大安區敦化南路二段 38 號
松江分行	臺北市中山區松江路 137 號
蘆洲分行	新北市蘆洲區集賢路 217-2 號
鳳山分行	高雄市鳳山區博愛路 165 之 3 號
新竹分行	新竹市北區西大路 645 號
松山分行	臺北市信義區永吉路 356 號
土城分行	新北市土城區金城路三段 123 號
中和分行	新北市中和區景平路 200 號
赤崁分行	臺南市中西區忠義路二段 167 號
基隆分行	基隆市安樂區麥金路 193 號
東門分行	臺南市中西區府前路一段 26 號
北門分行	臺南市北區開元路 133 號
屏東分行	屏東縣屏東市廣東路 451 號
雙和分行	新北市永和區中和路 545 號
歸仁分行	臺南市歸仁區中正南路一段 23 號

查驗意見編號 TW24/00309GG, 接續

名稱(凱基銀行)	地址
海東分行	臺南市安南區海佃路一段 129 號
永康分行	臺南市永康區中華路 9 號
天母分行	臺北市士林區德行西路 7 號
新店分行	新北市新店區北新路三段 202 號
大安分行	臺北市大安區新生南路二段 8 號
苗栗分行	苗栗縣苗栗市中正路 81 號
花蓮分行	花蓮縣花蓮市中正路 560 號
彰化分行	彰化縣彰化市曉陽路 199 之 3 號
豐原分行	臺中市豐原區中山路 329 號
大里分行	臺中市大里區中興路二段 331 號
嘉義分行	嘉義市西區新榮路 193 號
風城分行	新竹市東區中正路 59 號
南大分行	新竹市東區南大路 339 號
竹科分行	新竹市東區光復路一段 238 號
台東分行	臺東縣臺東市中華路一段 341 號
羅東分行	宜蘭縣羅東鎮公正路 50 號
大直分行	臺北市中山區樂群三路 78 號
高美館分行	高雄市鼓山區明誠四路 156 號
市政分行	臺中市西屯區市政路 400 號
藝文分行	桃園市桃園區同德六街 89 號
瑞光分行	臺北市內湖區瑞光路 618 號
民生分行	臺北市松山區民生東路五段 2 號
名稱(華開租賃)	地址
台北總公司	臺北市中山區南京東路三段 224 號 5、6 樓
台中分公司	台中市南屯區文心路一段 306 號 5 樓之 5
高雄分公司	高雄市苓雅區新光路 38 號 37 樓之 4

溫室氣體查驗意見

2023 年溫室氣體排放資訊

凱基證券股份有限公司

104451 台北市中山區明水路 700 號

經本公司依據 ISO 14064-3:2019 完成查驗並符合下列標準要求

ISO 14064-1:2018

直接溫室氣體排放量

508.0463 公噸二氧化碳當量

間接溫室氣體排放量

9,321.2346 公噸二氧化碳當量

直接與間接溫室氣體總排放量

9,829.281 公噸二氧化碳當量

簽署人



鮑柏宇

管理與保證事業群副總裁

日期: 2024年05月22日

版次:1

TGP56B-15-1 2401

台灣檢驗科技股份有限公司

新北市五股區(新北產業園區)五工路 136 之 1 號

t (02) 22993279 f (02)22999453 www.sgs.com



查驗意見編號 TW24/00312GG, 接續

【全廠/集團各類別溫室氣體排放量】

單位：公噸二氧化碳當量

報告邊界			溫室氣體排放量
類別	內容說明		
直接溫室氣體排放	固定燃燒直接排放		140.1528
	移動燃燒直接排放		62.2751
	工業製程直接製程排放及移除		0.0000
	人為系統中溫室氣體釋放產生直接逸散排放		305.6184
	土地利用變更和森林直接排放和移除		0.0000
間接溫室氣體排放	輸入能源溫室氣體排放	外購電力排放	6,113.7504
	運輸溫室氣體排放	對帳單寄送至郵局運輸 郵局包裹寄送 購買影印紙運輸 影印機廠商來訪 員工差旅搭乘(高鐵、飛機、火車、計程車)	728.2726
	組織使用產品溫室氣體排放	外購能源之上游生產含運輸(電力、汽油、柴油) 生活垃圾最終處置 生活垃圾清運服務 租賃冷媒(公務車) 租賃電信服務電力間接	2479.2116
	使用來自於組織產品溫室氣體排放	NA	-
	其他來源溫室氣體排放	NA	-
	直接與間接溫室氣體總排放量		9829.281

台灣檢驗科技股份有限公司(以下簡稱SGS),經與凱基證券股份有限公司(以下簡稱凱基證券), 104451 台北市中山區明水路700號,達成雙邊協議,依據ISO 14064-3:2019之要求執行直接與間接溫室氣體排放量之查驗,查驗意見內容說明如下:

角色與責任

- 凱基證券管理階層確保組織溫室氣體資訊系統之發展、紀錄維護及文件化程序已符合標準要求,負責評估、決定及報告溫室氣體排放量資訊。
- 簽約時間:SGS 秉持第三方查驗單位之準則,依據 2022 年 10 月 12 日簽訂雙邊協議
- 查驗準則:
 - ISO 14064-1:2018 溫室氣體—第 1 部:組織層級溫室氣體排放與移除之量化及報告附指引之規範
- 查驗期間:2024 年 04 月 08 日至 2024 年 04 月 25 日

查驗範圍

- 溫室氣體排放量資訊涵蓋週期:2023 年 01 月 01 日至 2023 年 12 月 31 日
- 包含廠區:附錄 A
- 排放溫室氣體種類:二氧化碳(CO₂)、甲烷(CH₄)、氧化亞氮(N₂O)、氫氟碳化物(HFCs)、全氟碳化物(PFCs)、六氟化硫(SF₆)、三氟化氮(NF₃)
- 全球暖化潛勢(GWP)引用 IPCC 2021 第 6 次評估報告之全球暖化潛勢值
- 排放係數資料庫來源:
 - 直接溫室氣體排放:溫室氣體排放係數管理表 6.0.4 版
 - 間接溫室氣體排放:
 - 輸入能源之電力引用經濟部能源署 2023 年公布之 2022 年電力排放係數:0.495 公斤二氧化碳當量/度計算
 - 二級資料庫引用產品碳足跡資訊網、ICAO
- 保證等級:依據查驗準則及雙邊協議執行查驗程序,針對凱基證券於溫室氣體聲明所提查驗證據顯示
 - 類別一及類別二之未違反實質性差異門檻,符合主管機關認可之合理保證等級。
 - 類別三至六為有限保證等級。
- 實質性差異門檻判斷準則:5%
- 盤查清冊版本次:2024.04.25
- 盤查報告書版本次:2024.04.25
- 查驗意見之預期使用者:金融監督管理委員會/組織自行使用

查驗目標

SGS獨立客觀的取得支持溫室氣體聲明揭露資訊的佐證，確保報告資訊符合準確性、完整性、一致性及透明度之準則，其內容包含錯誤或遺漏之項目。

結論

SGS 採用以風險評估為基礎之方法，確保並控管溫室氣體排放資訊揭露風險；規劃及執行查驗流程，包含行前評估、取樣計畫、證據之蒐集，取得查驗意見需要之資訊、說明及相關佐證，確保溫室氣體聲明中的現場溫室氣體排放量無實質的錯誤聲明。

查驗數據結果：

- 溫室氣體總排放量為 9829.281 公噸二氧化碳當量
- 生質燃燒之二氧化碳排放量為 0.0000 公噸二氧化碳當量

【全廠/集團各類別溫室氣體排放量】

單位：公噸二氧化碳當量

報告邊界		溫室氣體排放量
類別	內容說明	
直接溫室氣體排放	固定燃燒直接排放	140.1528
	移動燃燒直接排放	62.2751
	工業製程直接製程排放及移除	0.0000
	人為系統中溫室氣體釋放產生直接逸散排放	305.6184
	土地利用變更和森林直接排放和移除	0.0000
間接溫室氣體排放	輸入能源溫室氣體排放 外購電力排放	6,113.7504
	運輸溫室氣體排放 對帳單寄送至郵局運輸 郵局包裹寄送 購買影印紙運輸 影印機廠商來訪 員工差旅搭乘(高鐵、飛機、火車、計程車)	728.2726
	組織使用產品溫室氣體排放 外購能源之上游生產含運輸(電力、汽油、柴油) 生活垃圾最終處置 生活垃圾清運服務 租賃冷媒(公務車) 租賃電信服務電力間接	2479.2116

報告邊界			溫室氣體排放量
類別	內容說明		
使用來自於組織產品溫室氣體排放	NA		-
其他來源溫室氣體排放	NA		-
直接與間接溫室氣體總排放量			9829.281

- 查驗意見：SGS 根據下述狀況，提出修正後無保留意見之查驗意見。
 - 查驗者有充分且適當的證據支持實質的排放量、移除量或儲存。
 - 查驗者針對實質的排放量、移除量或儲存採取適當的準則。
 - 當查驗者擬依賴相關管制時，管制之有效性已經過評估。
 - 查驗者採用 ISO 14064-1:2018 準則，經查驗有以下發現事項，然經調整修正後，無產生實質性錯誤。
 - 部分活動數據填寫錯誤及係數引用錯誤，經修正後符合現況。
- 保留限制：電力活動數據：以帳單月份進行收集 12 個月的數據。

保密性聲明

此報告及附件可能包含屬於凱基證券之機密資訊，未經凱基證券書面同意，其他個人、團體或公司禁止自行複製或發行。

利益衝突迴避聲明

此報告及附件內容完全依照主管機關之標準方法與程序等相關規定，秉持公正、誠實進行查驗作業。絕無虛偽不實，如有違反，就政府機構所受損失願負連帶賠償責任之外，並接受主管機關依法令所為之行政處分及刑事處罰。

所有查驗人員瞭解如自身受政府機關委任從事公務，亦屬於刑法上之公務員，並瞭解刑法上圖利罰、公務員登載不實偽造公文書及貪污治罪條例之相關規定，如有違反，亦為刑法及貪污治罪條例之適用對象，願受最嚴厲之法律制裁。

本公司與受查驗單位並無財務投資之關係，且符合主管機關對利益衝突迴避之要求。如有違反前述事實情事，經主管機關查證屬實時，此報告及附件內容願接受主管機關判定為無效之處分。

查驗意見編號 TW24/00312GG, 接續

查驗團隊

上述意見係查驗團隊依據公正之查驗過程所提出之意見。

主導查驗員：

呂政書

查驗員：

紀元婷

夏懿護

查驗員：

曾凱平

備註：本查驗意見遵照 SGS 溫室氣體查驗服務條款要求 http://www.sgs.com/terms_and_conditions.htm，意見內容由台灣檢驗科技股份有限公司依據溫室氣體聲明之查驗結果進行編製，業經客戶同意後發行。本查驗意見非用以解除客戶遵守組織章程、全國或者地方法令，以及任何被發佈國際指南章程之責任；客戶與 SGS 彼此為獨立之個體，客戶非受 SGS 約束，在此 SGS 除客戶之外毋須代表其面對其他組織團體。

附錄 A

名稱	地址
凱基證券股份有限公司	104451 台北市明水路 698、700 號
凱基證券股份有限公司	100502 台北市重慶南路一段 2 號 4/5/14 樓
凱基證券股份有限公司	100003 台北市中正區忠孝西路一段 102 號 13/14 樓
凱基證券基隆分公司	200011 基隆市仁愛區仁一路 259 號 3、4 樓
凱基證券汐止分公司	221044 新北市汐止區新興路 3 號 7 樓
凱基證券松山分公司	105412 台北市松山區八德路四段 678 號 3 樓
凱基證券市府分公司	110058 台北市信義區忠孝東路四段 563 號 7 樓
凱基證券復興分公司	105403 台北市松山區復興北路 167 號 4 樓
凱基證券信義分公司	105403 台北市松山區復興北路 167 號 14 樓之 1
凱基證券天母分公司	111038 台北市士林區中山北路七段 18 號 4 樓之 3
凱基證券大直分公司	104051 台北市中山區明水路 646 號 1 樓
凱基證券敦北分公司	105410 台北市松山區敦化北路 88 號 8 樓之 2
凱基證券士林分公司	111011 台北市士林區文林路 342 號 5 樓
凱基證券大安分公司	106419 台北市大安區安和路二段 82 號 2 樓
凱基證券台北分公司	104475 台北市中山區南京東路 2 段 137 號 4 樓
凱基證券站前分公司	100415 台北市中正區許昌街 17 號 3 樓
凱基證券民權分公司	104462 台北市中山區復興北路 420 號 4 樓
凱基證券城中分公司	100005 台北市中正區博愛路 35 號 2 樓

名稱	地址
凱基證券中山分公司	104016 台北市中山區中山北路二段 68 號 7 樓
凱基證券內湖分公司	114064 台北市內湖區內湖路一段 360 巷 15 號 8 樓
凱基證券和平分公司	100404 台北市中正區羅斯福路二段 102 號 3 樓
凱基證券興隆分公司	116077 台北市文山區興隆路三段 69 號 2 樓
凱基證券板橋分公司	220646 新北市板橋區四川路一段 107 號 2 樓
凱基證券埔墘分公司	220341 新北市板橋區三民路一段 216 號 5 樓 D 室
凱基證券永和分公司	234043 新北市永和區中正路 63.65 號 6 樓
凱基證券雙和分公司	235069 新北市中和區中和路 232 號 3 樓
凱基證券三重分公司	241033 新北市三重區正義北路 208 號 3 樓
凱基證券新店分公司	231007 新北市新店區北新路 3 段 106 號 1、2 樓
凱基證券新莊分公司	242072 新北市新莊區四維路 21 號 5 樓
凱基證券幸福分公司	242031 新北市新莊區中華路二段 5 號 3 樓
凱基證券新莊分公司	242034 新北市新莊區思源路 555 號 2 樓
凱基證券土城分公司	236003 新北市土城區金城路三段 182 號
凱基證券五股分公司	248013 新北市五股區中興路四段 40 號 1、2 樓
凱基證券三峽分公司	237018 新北市三峽區文化路 59 號 3 樓之 1
凱基證券林口分公司	244020 新北市林口區文化二路一段 569 號
凱基證券長庚分公司	333005 桃園市龜山區復興一路 227 號地下 1 樓

查驗意見編號 TW24/00312GG, 接續

名稱	地址
凱基證券八德分公司	334006 桃園市八德區介壽路二段 137 號 3 樓
凱基證券南崁分公司	338208 桃園市蘆竹區中正路 308 號 1 樓
凱基證券桃園分公司	330005 桃園市桃園區成功路一段 32 號 14 樓
凱基證券中壢分公司	320029 桃園市中壢區環北路 421 號 1 樓
凱基證券湖口分公司	303119 新竹縣湖口鄉成功路 247 號
凱基證券新豐分公司	304114 新竹縣新豐鄉中興路 206 號
凱基證券竹北分公司	302001 新竹縣竹北市仁義路 193 號 2 樓
凱基證券竹東分公司	310001 新竹縣竹東鎮朝陽路 9 號 2 樓
凱基證券科園分公司	300049 新竹市東區光復路 1 段 273 號 1 樓
凱基證券竹科分公司	300017 新竹市北區中正路 158 號 3 樓
凱基證券頭份分公司	351497 苗栗縣頭份市中華路 916 號 4 樓
凱基證券苗栗分公司	360003 苗栗縣苗栗市中正路 458 號 2 樓
凱基證券豐中分公司	420002 台中市豐原區三豐路一段 43 號 7 樓
凱基證券台中分公司	400628 台中市中區民族路 50 號 5 樓
凱基證券中港分公司	403010 台中市西區台灣大道一段 728 號 8 樓
凱基證券文心分公司	406505 台中市北屯區文心路四段 875 號 2 樓
凱基證券大里分公司	412002 台中市大里區中興路二段 127 號 2 樓
凱基證券市政分公司	407619 台中市西屯區市政路 402 號 4 樓之 2、3
凱基證券東勢分公司	423003 台中市東勢區豐勢路 297 號 4 樓

查驗意見編號 TW24/00312GG, 接續

名稱	地址
凱基證券彰化分公司	500065 彰化縣彰化市中山路二段 353 號 1、2 樓
凱基證券員林分公司	510001 彰化縣員林市中山路二段 100 號 6 樓
凱基證券斗六分公司	640005 雲林縣斗六市永安路 46 號 3 樓
凱基證券虎尾分公司	632004 雲林縣虎尾鎮公安路 160 號 2~4 樓
凱基證券嘉義分公司	600001 嘉義市西區垂楊路 620 號 4 樓
凱基證券台南分公司	701024 台南市東區林森路一段 395 號 3 樓
凱基證券東門分公司	701037 台南市東區東門路二段 160 號 2 樓
凱基證券永康分公司	710034 台南市永康區中山南路 1042 號 1、2 樓
凱基證券永華分公司	700004 台南市中西區永華路一段 32 號 3 樓
凱基證券北門分公司	700008 台南市中西區北門路一段 101 號 4 樓
凱基證券岡山分公司	820001 高雄市岡山區公園東路 47 號
凱基證券高美館分公司	804116 高雄市鼓山區明誠四路 156 號 3 樓
凱基證券三多分公司	802757 高雄市苓雅區中華四路 47 號 3 樓
凱基證券高雄分公司	802417 高雄市苓雅區中正二路 74 號 5 樓
凱基證券鳳山分公司	830019 高雄市鳳山區維新路 128 號 1 樓
凱基證券屏東分公司	900003 屏東縣屏東市自由路 188 號 3 樓
凱基證券東港分公司	928007 屏東縣東港鎮光復路一段 186 號 3 樓
凱基證券內埔分公司	912015 屏東縣內埔鄉東寧村平昌街 5 號 1 樓
凱基證券宜蘭分公司	260003 宜蘭縣宜蘭市光復路 48 號 2 樓

查驗意見編號 TW24/00312GG, 接續

名稱	地址
凱基證券羅東分公司	265008 宜蘭縣羅東鎮中正北路 48 號 1 樓
凱基證券台東分公司	950003 台東縣台東市中山路 248 號 1 樓

溫室氣體查驗意見

2023 年溫室氣體排放資訊

凱基期貨股份有限公司

100502 台北市重慶南路一段 2 號 13 樓



經本公司依據 ISO 14064-3:2019 完成查驗並符合下列標準要求

ISO 14064-1:2018

直接溫室氣體排放量

41.0808 公噸二氧化碳當量

間接溫室氣體排放量

668.4207 公噸二氧化碳當量

直接與間接溫室氣體總排放量

709.502 公噸二氧化碳當量

簽署人



鮑柏宇

管理與保證事業群副總裁

日期: 2024年05月22日

版次:1

TGP56B-15-1 2401

台灣檢驗科技股份有限公司

新北市五股區(新北產業園區)五工路 136 之 1 號

t (02) 22993279 f (02)22999453 www.sgs.com



【全廠/集團各類別溫室氣體排放量】

單位：公噸二氧化碳當量

報告邊界		溫室氣體排放量
類別	內容說明	
直接溫室氣體排放	固定燃燒直接排放	0.0869
	移動燃燒直接排放	5.1675
	工業製程直接製程排放及移除	0.0000
	人為系統中溫室氣體釋放產生直接逸散排放	35.8264
	土地利用變更和森林直接排放和移除	0.0000
間接溫室氣體排放	輸入能源溫室氣體排放 外購電力排放	519.6198
	運輸溫室氣體排放 對帳單寄送至郵局運輸 郵局包裹寄送 購買影印紙運輸 影印機廠商來訪 員工差旅搭乘(高鐵、飛機、火車、計程車)	36.7692
	組織使用產品溫室氣體排放 外購能源之上游生產含運輸(電力、汽油、柴油) 生活垃圾最終處置 生活垃圾清運服務 租賃冷媒(公務車)	112.0317
	使用來自於組織產品溫室氣體排放	NA
	其他來源溫室氣體排放	NA
直接與間接溫室氣體總排放量		709.502

台灣檢驗科技股份有限公司(以下簡稱SGS), 經與凱基證券股份有限公司(以下簡稱凱基證券), 台北市中山區明水路700 號, 達成雙邊協議, 針對凱基期貨股份有限公司(以下簡稱凱基期貨), 100502台北市重慶南路一段2號13樓, 依據ISO 14064-3:2019之要求執行直接與間接溫室氣體排放量之查驗, 查驗意見內容說明如下:

角色與責任

- 凱基期貨管理階層確保組織溫室氣體資訊系統之發展、紀錄維護及文件化程序已符合標準要求, 負責評估、決定及報告溫室氣體排放量資訊。
- 簽約時間: SGS 秉持第三方查驗單位之準則, 依據 2022 年 10 月 12 日簽訂雙邊協議
- 查驗準則:
 - ISO 14064-1:2018 溫室氣體—第 1 部: 組織層級溫室氣體排放與移除之量化及報告附指引之規範
- 查驗期間: 2024 年 04 月 08 日至 2024 年 04 月 25 日

查驗範圍

- 溫室氣體排放量資訊涵蓋週期: 2023 年 01 月 01 日至 2023 年 12 月 31 日
- 包含廠區:

凱基期貨股份有限公司	100502 台北市重慶南路一段 2 號 12/13 樓
凱基期貨股份有限公司	100502 台北市重慶南路一段 2 號 6 樓
凱基期貨新竹分公司	302044 新竹縣竹北市自強南路 8 號 10 樓之 3
凱基期貨台中分公司	403010 台中市西區台灣大道一段 728 號 9 樓
凱基期貨高雄分公司	802417 高雄市苓雅區中正二路 74 號 12 樓

- 排放溫室氣體種類: 二氧化碳(CO₂)、甲烷(CH₄)、氧化亞氮(N₂O)、氫氟碳化物(HFCs)、全氟碳化物(PFCs)、六氟化硫(SF₆)、三氟化氮(NF₃)
- 全球暖化潛勢(GWP)引用 IPCC 2021 第六次評估報告之全球暖化潛勢值
- 排放係數資料庫來源:
 - 直接溫室氣體排放: 溫室氣體排放係數管理表 6.0.4 版
 - 間接溫室氣體排放:
 - 輸入能源之電力引用經濟部能源署 2023 年公布之 2022 年電力排放係數: 0.495 公斤二氧化碳當量/度計算
 - 二級資料庫引用產品碳足跡資訊網、ICAO

- 保證等級：依據查驗準則及雙邊協議執行查驗程序，針對凱基期貨於溫室氣體聲明所提查驗證據顯示
 - 類別一及類別二之未違反實質性差異門檻，符合主管機關認可之合理保證等級。
 - 類別三至六為有限保證等級。
- 實質性差異門檻判斷準則：5%
- 盤查清冊版本次：2024.04.25
- 盤查報告書版本次：2024.04.25
- 查驗意見之預期使用者：金融監督管理委員會/組織自行使用

查驗目標

SGS獨立客觀的取得支持溫室氣體聲明揭露資訊的佐證，確保報告資訊符合準確性、完整性、一致性及透明度之準則，其內容包含錯誤或遺漏之項目。

結論

SGS 採用以風險評估為基礎之方法，確保並控管溫室氣體排放資訊揭露風險；規劃及執行查驗流程，包含行前評估、取樣計畫、證據之蒐集，取得查驗意見需要之資訊、說明及相關佐證，確保溫室氣體聲明中的現場溫室氣體排放量無實質的錯誤聲明。

- 查驗數據結果：
 - 溫室氣體總排放量為 709.502 公噸二氧化碳當量
 - 生質燃燒之二氧化碳排放量為 0.0000 公噸二氧化碳當量

【全廠/集團各類別溫室氣體排放量】

單位：公噸二氧化碳當量

報告邊界		溫室氣體排放量
類別	內容說明	
直接溫室氣體排放	固定燃燒直接排放	0.0869
	移動燃燒直接排放	5.1675
	工業製程直接製程排放及移除	0.0000
	人為系統中溫室氣體釋放產生直接逸散排放	35.8264
	土地利用變更和森林直接排放和移除	0.0000

報告邊界			溫室氣體排放量
類別	內容說明		
間接溫室氣體排放	輸入能源溫室氣體排放	外購電力排放	519.6198
	運輸溫室氣體排放	對帳單寄送至郵局運輸 郵局包裹寄送 購買影印紙運輸 影印機廠商來訪 員工差旅搭乘(高鐵、飛機、火車、計程車)	36.7692
	組織使用產品溫室氣體排放	外購能源之上游生產含運輸 (電力、汽油、柴油) 生活垃圾最終處置 生活垃圾清運服務 租賃冷媒(公務車)	112.0317
	使用來自於組織產品溫室氣體排放	NA	-
	其他來源溫室氣體排放	NA	-
直接與間接溫室氣體總排放量			709.502

- 查驗意見：SGS 根據下述狀況，提出修正後無保留意見之查驗意見。
 - 查驗者有充分且適當的證據支持實質的排放量、移除量或儲存。
 - 查驗者針對實質的排放量、移除量或儲存採取適當的準則。
 - 當查驗者擬依賴相關管制時，管制之有效性已經過評估。
 - 查驗者採用 ISO 14064-1:2018 準則，經查驗有以下發現事項，然經調整修正後，無產生實質性錯誤。
 - 部分活動數據填寫錯誤及係數引用錯誤，經修正後符合現況。
- 保留限制：電力活動數據：以帳單月份進行收集 12 個月的數據。

保密性聲明

此報告及附件可能包含屬於凱基期貨之機密資訊，未經凱基期貨書面同意，其他個人、團體或公司禁止自行複製或發行。

利益衝突迴避聲明

此報告及附件內容完全依照主管機關之標準方法與程序等相關規定，秉持公正、誠實進行查驗作業。絕無虛偽不實，如有違反，就政府機構所受損失願負連帶賠償責任之外，並接受主管機關依法令所為之行政處分及刑事處罰。

所有查驗人員瞭解如自身受政府機關委任從事公務，亦屬於刑法上之公務員，並瞭解刑法上圖利罰、公務員登載不實偽造公文書及貪污治罪條例之相關規定，如有違反，亦為刑法及貪污治罪條例之適用對象，願受最嚴厲之法律制裁。

本公司與受查驗單位並無財務投資之關係，且符合主管機關對利益衝突迴避之要求。如有違反前述事實情事，經主管機關查證屬實時，此報告及附件內容願接受主管機關判定為無效之處分。

查驗團隊

上述意見係查驗團隊依據公正之查驗過程所提出之意見。

主導查驗員：

呂政書

查驗員：

紀元婷

夏堃駿

查驗員：

曾凱平

備註：本查驗意見遵照 SGS 溫室氣體查驗服務條款要求 http://www.sgs.com/terms_and_conditions.htm，意見內容由台灣檢驗科技股份有限公司依據溫室氣體聲明之查驗結果進行編製，業經客戶同意後發行。本查驗意見非用以解除客戶遵守組織章程、全國或者地方法令，以及任何被發佈國際指南章程之責任；客戶與 SGS 彼此為獨立之個體，客戶非受 SGS 約束，在此 SGS 除客戶之外毋須代表其面對其他組織團體。

Opinion Statement

Greenhouse Gas Emissions Verification Opinion Statement

This is to verify that: KGI Life Insurance Co., Ltd.
3~7F.
No. 135, Dunhua N. Rd.
Songshan Dist.
Taipei City 105021
Taiwan

凱基人壽保險股份有限公司
臺灣
台北市
松山區
敦化北路 135 號
3~7 樓
105021


Holds Statement No: GHGEV 802912

Verification opinion statement

As a result of carrying out verification and validation procedures in accordance with ISO 14064-3:2019, it is the statement for mixed engagement including reasonable assurance for verification activity as well as validation and agreed-upon procedures (AUP) contains the following:

- The Greenhouse Gas Emissions with KGI Life Insurance Co., Ltd. for the period from 2023-01-01 to 2023-12-31 was verified and validated.
- The verified organization-level greenhouse gas emissions include direct greenhouse gas emissions 565.4226 tonnes of CO₂ equivalent and indirect greenhouse gas emissions from imported energy 6,806.4359 tonnes of CO₂ equivalent.
- KGI Life Insurance Co., Ltd. has defined and explained its own process and pre-determined criteria for significance of indirect Greenhouse Gas Emissions and quantify and report these identified significant emissions accordingly.
- The verification process was subject to the following limitation(s): T-REC (21SP0024-B023000001~21SP0024-B023000045) from self-use renewable energy generation has not been registered to cancel at National Renewable Energy Certification Center.

For and on behalf of BSI:


Managing Director BSI Taiwan, Peter Pu

Originally Issue: 2024-03-22

Latest Issue: 2024-03-22

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The British Standards Institution is independent to the above named client and has no financial interest in the above named client. This Opinion Statement has been prepared for the above named client only for the purposes of verifying its statements relating to its carbon emissions more particularly described in the scope. It was not prepared for any other purpose. The British Standards Institution will not, in providing this Opinion Statement, accept or assume responsibility (legal or otherwise) or accept liability for or in connection with any other purpose for which it may be used or to any person by whom the Opinion Statement may be read. This Opinion Statement is prepared on the basis of review by The British Standards Institution of information presented to it by the above named client. The review does not extend beyond such information and is solely based on it. In performing such review, The British Standards Institution has assumed that all such information is complete and accurate. Any queries that may arise by virtue of this Opinion Statement or matters relating to it should be addressed to the above named client only.

Taiwan Headquarters: 2nd Floor, No. 37, Ji-Hu Rd., Nei-Hu Dist., Taipei 114, Taiwan, R.O.C.
BSI Taiwan is a subsidiary of British Standards Institution.

Verification are based on reasonable level of assurance

- The data and information of greenhouse gas emissions are based on historical in nature, and no material misstatements for the period from 2023 -01-01 to 2023-12-31 Greenhouse Gas Emissions calculation were revealed.
- Data quality was considered acceptable in meeting the principles as set out in ISO 14064-1:2018.
- The emission factor for electricity for the year 2023 is not published by Taiwan & Chinese government so far, the emission factor used for electricity is 0.495 (TW) & 0.581 (CN) kilograms of Carbon Dioxide equivalent per kWh instead which may potentially result in different Greenhouse Gas Emission estimates.

EMISSIONS		Notes	tonnes CO ₂ e
Category 1: Direct GHG emissions and removals			565.423
1.1	Stationary combustion		83.8349
1.2	Mobile combustion		21.4498
1.3	Industrial processes (anthropogenic systems)		0
1.4	Fugitive (anthropogenic systems)		460.1380
1.5	Land use, land use change and forestry	N/A	
Direct emissions in tonnes of CO ₂ e from biomass			0
Category 2: Indirect GHG emissions from imported energy			6,806.436
2.1	Indirect emissions from imported electricity	location-based approach	6,806.4359
		Power Purchase Agreements:	967,585 kWh
	Indirect emissions from imported electricity	market-based approach	6,327.4813
2.2	Indirect emissions from imported energy (steam, heating, cooling and compressed air)		0

Agreed upon procedures (AUP)

- AUP are specific types of verification activities, BSI have performed the evidence-gathering procedures for the period from 2023-01-01 to 2023-12-31
- BSI do not express any assurance on the GHG emissions, removals and storage in listed below.

EMISSIONS		Notes	AUP Item(s)	tonnes CO ₂ e
Category 3: Indirect GHG emissions from transportation				43.828
3.1	Emissions from upstream transport and distribution for goods	Weight and distance of paper procured from ERP system	748.2920 tkm	0.4392
3.2	Emissions from Downstream transport and distribution for goods	Weight and distance of package and letters mailed from Chunghua Post Report	Letters: 108.1721 tkm Parcel: 0.3031 tkm	0.0741
3.5	Emissions from Business travels	Including flight, high speed rail (HSR), train and taxi travel records from ERP system	HSR: 33,280.4 kgCO ₂ e (1,040,012.5 pkm) Train: 97,162.8 pkm Taxi: 24,187.3748 pkm Flight: 1570.1 kgCO ₂ e	43.3142
Category 4: indirect GHG emissions from products used by organization				1,613.119
4.1	Emissions from Purchased goods	Upstream emissions of purchased diesel, natural gas, gasoline and Electricity, input from Cat.1.1, 1.2, & 2.1	Electricity: 13,750,211.3889 kWh Diesel: 400L Natural Gas: 44,005.2910m ³ Gasoline: 9,102.4L	1,366.5014
4.3	Emissions from the disposal of solid and liquid waste	Weight of the waste generated per person per working day	684,859.56 kg	246.5494
4.5	Emissions from the use of services that are not described in the above subcategories	Emission from copy machine maintenance service	719.8000 pkm	0.0685

The direct GHG emissions and removals(cat.1) and indirect GHG emissions from imported energy emissions(cat.2) were verified in selected branches and representative offices, including but not limited to the following:

Location	Verification Information
KGI Life Insurance Co., Ltd. 3~7F. No. 135, Dunhua N. Rd. Songshan Dist. Taipei City 105021 Taiwan 凱基人壽保險股份有限公司 臺灣 台北市 松山區 敦化北路 135 號 3~7 樓 105021	<p>The Greenhouse Gas Emissions with KGI Life Insurance Co., Ltd. for the period from 2023 -01-01 to 2023-12-31 was verified, including direct greenhouse gas emissions 565.4226 tonnes of CO₂ equivalent and indirect greenhouse gas emissions from imported energy 6,806.4359 tonnes of CO₂ equivalent.</p> <p>All branches of KGI Life Insurance Co., Ltd., 52 domestic and 1 overseas ones, are included.</p> <p>涵蓋凱基人壽保險股份有限公司全據點(共 52 個台灣據點與 1 個海外據點)。</p>



Project Number : SG/SIN/604095

Version: 1

Greenhouse Gas Verification Report (CY 2023)

**KGI Securities (Singapore) Pte Ltd
(KGISS)**

SGS International Certification Services Singapore Pte Ltd.

29 04 2024

SGS has been contracted by KGI Securities (Singapore) Pte Ltd (hereinafter referred to as “KGISS”), 4 Shenton Way, #13-01, Singapore 068807 for the verification of direct and indirect Greenhouse Gas emissions in accordance with

ISO 14064-3:2019

as provided by KGI Securities (Singapore) Pte Ltd (hereinafter referred to as “KGISS”), 4 Shenton Way, #13-01, Singapore 068807 in the GHG Assertion in the form of GHG report covering GHG emissions of the period 01 January 2023 to 31 December 2023.

Roles and responsibilities

The management of KGISS is responsible for the organization’s GHG information system, the development and maintenance of records and reporting procedures in accordance with that system, including the calculation and determination of GHG emissions information and the reported GHG emissions.

It is SGS’s responsibility to express an independent GHG verification opinion on the GHG emissions as provided in the GHG Assertion for the period 01 January 2023 to 31 December 2023.

SGS conducted a third-party verification of the provided GHG assertion against the principles of ISO 14064-1:2018 and ISO 14064-3:2019 in the period 02 April 2024 to 29 April 2024. The verification was based on the verification scope, objectives and criteria as agreed between KGISS and SGS on 22 August 2023.

Level of Assurance

The level of assurance agreed is that of limited assurance.

Scope

KGISS has commissioned an independent verification by SGS Singapore of reported GHG emissions of KGISS arising from the provision of an intermediary between buyers and sellers to facilitate transactions services (financial services) to establish conformance with ISO 14064-1:2018 principles within the scope of the verification as outlined below.

This engagement covers verification of emission from anthropogenic sources of greenhouse gases included within the organization’s boundary and is based on ISO 14064-3:2019.

- The organizational boundary was established following operational control approach.

- Title or description activities: GHG verification for KGISS in Calendar Year 2023
- Location/boundary of the activities:
 - 4 Shenton Way, #12-01/06, Singapore 068807
 - 4 Shenton Way, #13-01/05/06, Singapore 068807
- Physical infrastructure, activities, technologies and processes of the organization: provision of an intermediary between buyers and sellers to facilitate transactions services (financial services)
- GHG sources, sinks and/or reservoirs included: Sources as presented in the inventory spreadsheet provided by KGISS
- Types of GHGs included: CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃
- The IPCC 2023 AR6 GWP values are applied in this inventory for Category 1. The IPCC 2023 AR5 GWP values are applied in this inventory for Category 3.1 Business Travel and 3.2 Employee Commuting. The IPCC 2023 AR4 GWP values are applied in this inventory for Category 4.1 Purchased goods and services
- Emission Factor:
 - Indirect emission:
 - Electricity emission factor: 0.4168 kgCO₂e/kwh (Energy Market Authority (EMA), Singapore in 2022)
 - The secondary database: UK DEFRA 2023 (BEIS), US-EPA EEIO 2023
- Directed actions: N/A
- GHG information for the following period was verified: 01 January 2023 to 31 December 2023
- The version of inventory sheet: APPENDIX B_28Apr2024.xlsx
- The version of GHG assertion: KGI_report_20240427.docx
- Intended user of the verification statement: KGI Group

Objective

The purposes of this verification exercise are, by review of objective evidence, to independently review:

- Whether the GHG emissions are as declared by the organization's GHG assertion
- The data reported are accurate, complete, consistent, transparent and free of material error or omission.

Criteria

Criteria against which the verification assessment is undertaken are the principles of ISO 14064-1:2018.

Materiality

The materiality required of the verification was considered by SGS to 5%, based on the needs of the intended user of the GHG Assertion.

Sampling Rule

For Periodic verification for one organization/project (either year or visit), below sampling rules apply:

- All identified source streams shall be accessed through SR & RA and stage 2 audit.
- Lead verifier/verifier may review and decide to skip the sampling of below captioned source stream(s) based on the condition if identified source stream(s) emission amount (CO₂e) is less than 0.5% of the total emission amount during stage 2 audit
- The summary emission amount of all skipped emission source(s) shall not exceed 3% of the total emission amount
- The minimum data sampling number of each emission source stream will be no less than the square root of the total data numbers
- Any additional description for the verification: N/A

Consider the audit time and other situation, below sampling rules are encouraged to enhance the degree of confidence for routine data sources:

- Sampling all monthly data if there is only one monthly data source.
- At least sampling two months' out of yearly data if no less than one daily data source are provided.
- At least sampling two months' out of yearly data if more than one weekly data source are provided.

Refer the appendix I for assessment schedule

Refer the appendix II for sampling rule and result for activity data

Refer the appendix III for GHG emissions checklist

Refer the appendix IV for Findings overview

Conclusion

KGISS provided the GHG assertion based on the requirements of ISO14064-1:2018. The GHG information for the period 01 January 2023 to 31 December 2023 disclosing emissions of 395.01 metric tonnes of CO₂ equivalent and 0.00 metric tonnes of direct CO₂ emissions from the combustion of biomass are verified by SGS to a limited level of assurance, consistent with the agreed verification

scope, objectives and criteria.

The emission of each category is described as below:

Unit: tonnes of CO₂e

Operational Boundaries		GHG Emissions	
Category		Description	Location-based
Direct Emissions		This direct GHG emission are the sum of owned or controlled by the organization within the organization	10.61
Indirect emissions	Imported energy	2.1 Imported Electricity-Location-based	125.01
	Imported energy	2.2 Purchased Cooling	24.90
	Transportation	3.1 Business Travel	152.59
		3.2 Employee Commuting	59.97
	Products used by an organization	4.1 Purchased goods and services	21.91
Direct emissions and indirect emissions			395.01

SGS's approach is risk-based, drawing on an understanding of the risks associated with reporting GHG emissions information and the controls in place to mitigate these. Our examination includes assessment, on a test basis, of evidence relevant to the amounts and disclosures in relation to the organization's reported GHG emissions.

We planned and performed our work to obtain the information, explanations and evidence that we considered necessary to provide a limited level of assurance that the GHG emissions for the period 01 January 2023 to 31 December 2023 are fairly stated.

We conducted our verification with regard to the GHG assertion of KGISS which included assessment of GHG information system, monitoring and reporting plan/protocol. This assessment included the collection of evidence supporting the reported data, and checking whether the provisions of the

protocol reference, were consistently and appropriately applied.

In SGS's opinion, there is no evidence that the GHG assertion

- is not materially correct and is not a fair representation of GHG data and information, and
- has not been prepared in accordance with ISO14064-1:2018 on GHG quantification, monitoring and reporting.

Technical Review

Refer the Appendix V for Technical Review result.

Confidentiality

The reports and attachments may contain relevantly confidential information of the clients. In addition to being submitted as governmental application or certification documents, the reports and attachments are not allowed to be edited, duplicated, or published without the clients' agreement in written form.

Avoidance of Conflict of Interest

The reports and attachments are completely complied with the standards and procedures that related-authorities established. The reports and attachments of auditing process are conduct with fairness and honesty. If not, the auditing institution not only has to bear the relevant compensation duties, but also to receive legal charge and punishment.

This statement shall be interpreted with the GHG assertion of KGISS as a whole.

Verifier Group

Above statements coincide with verification process with fairness and impartiality, and aim at the emission of year 2023 of clients.

Lead Verifier:

A handwritten signature in black ink, appearing to read 'Valerie Koh'.

Valerie Koh

Appendix I: Assessment Schedule

Stages	Document review (Desk Study)	Strategy review and risk analysis (SRRA)	Entity verification (Verification Audit)
	(2024 04 02)	(2024 04 08)	(2024 04 08)
	SGS	KGISS	KGISS
Member	Valerie Koh (Lead Verifier)	Valerie Koh (Lead Verifier)	Valerie Koh (Lead Verifier)

Appendix II: Sampling rule and result for activity data

Emission Source	Source Stream	Activity Data		Data Source	Sampling Method	Verification Result
Cat 2 - Purchased Electricity	Purchased Electricity from grid	299,939.31	KWH	2 bills each months, 3 meter in first bill (Unit #12-01/06, Unit #13-01, Unit #13-05) and second bill (Unit #13-05; Meter ID SB22588917)	<ul style="list-style-type: none"> - Check the whole year data (all 24 invoices) - Check emission factor used - Check calculation formulae to quantify GHG 	Activity data matched the evidence. No discrepancies detected.
Cat 2 - Purchased Cooling	Purchased Cooling from centralised cooling in the building	14,141.00	hours	2 bills each months, level 12 in first bill and level 13 in second bill	<ul style="list-style-type: none"> - Check the whole year data (all 24 invoices) - Check emission factor used - Check calculation formulae to quantify GHG based on IES guidelines 	Activity data matched the evidence. No discrepancies detected.
Cat 1 - Fugitive emissions from fire suppressants	FM200	117.93	kg	Capacity based on vendor data submitted via email	<ul style="list-style-type: none"> - Check the capacity data - Check GWP from IPCC 2023 AR6 - Check calculation formulae to quantify GHG from EPA guidelines 	Activity data matched the evidence. No discrepancies detected.

Emission Source	Source Stream	Activity Data		Data Source	Sampling Method	Verification Result
Business Travel (Air)	Fuel	90.00	travel requests	Expense record	<ul style="list-style-type: none"> - Sight data extraction process from system - Check data manipulation to derive number of trips by class - Check assumptions and choice of methodology - Check emission factor used - Check calculation formulae to quantify GHG 	Activity data matched the evidence. No discrepancies detected.
Employee Commute	Fuel	140.00	staff applicable staff	HR data, number of seasonal parking tickets bought and assumptions	<ul style="list-style-type: none"> - Sight data extraction process from system - Check data manipulation to derive number of employee by employment types - Check assumptions and choice of methodology 	<p>Current method assumes distance travelled and mode of travel.</p> <p>Organisation can use employee survey to garner more accurate data.</p> <p>FAR issued to improve accuracy</p>

Emission Source	Source Stream	Activity Data		Data Source	Sampling Method	Verification Result
					<ul style="list-style-type: none"> - Check emission factor used - Check calculation formulaes to quantify GHG 	of data collected.
Purchased goods and services	Raw material extraction, processing, etc (Cradle to gate emissions)	128,952.50	\$	Procurement records	<ul style="list-style-type: none"> - Sight data extraction process from system - Check data manipulation to derive top 5 spend - Check assumptions and choice of methodology - Check emission factor used - Check calculation formulaes to quantify GHG 	<p>Activity data matched the evidence.</p> <p>Organisation included only Top 5 spend.</p> <p>FAR issued to include emissions from all purchased goods</p>

Additional Description

N/A

The Percentage of Sampling

Year	Total GHG emissions (tonnes of CO ₂ e)	Verification GHG emissions (tonnes of CO ₂ e)	Percentage of sampled emissions (%)
2023	395.01	395.01	100%

Appendix III Greenhouse Gas Emissions Inventory Checklist

Clause	Contents	Description	Compliance	Non-compliance	Not Applicable	Remarks (if there is a file name, please specify)
5.1	Organizational boundaries	Organization shall define its organizational boundaries.	<input checked="" type="checkbox"/>			KGI Report, page 6 and Appendix A
5.1	Organizational boundaries	The organization shall consolidate its facility-level GHG emissions and removals by one of the following approaches: a) control: the organization accounts for all GHG emissions and/or removals from facilities over which it has financial or operational control; b) equity share: the organization accounts for its portion of GHG emissions and/or removals from respective facilities.	<input checked="" type="checkbox"/>			KGI Report, page 7
5.1	Organizational boundaries	Consolidation approach shall be consistent with the intended use of the GHG inventory.	<input checked="" type="checkbox"/>			KGI Report, page 8; operational control
5.2.1	Establishing reporting boundaries	Organization shall establish and document its reporting boundaries, including the identification of direct and indirect GHG emissions and removals associated with the organization's operations.	<input checked="" type="checkbox"/>			KGI Report, page 7

Clause	Contents	Description	Compliance	Non-compliance	Not Applicable	Remarks (if there is a file name, please specify)
5.2.2	Direct GHG emissions and removals	Organization shall quantify direct GHG emissions separately for CO ₂ , CH ₄ , N ₂ O, NF ₃ , SF ₆ and other appropriate GHG groups (HFCs, PFCs, etc.) in tonnes of CO ₂ e.	<input checked="" type="checkbox"/>			KGI Report, Introduction
5.2.3	Indirect GHG emissions	Organization shall apply and document a process to determine which indirect emissions to include in its GHG inventory.	<input checked="" type="checkbox"/>			KGI report, pg 12 and 13
5.2.3	Indirect GHG emissions	As part of this process, the organization shall define and explain its own pre-determined criteria for significance of indirect emissions, considering the intended use of the GHG inventory.	<input checked="" type="checkbox"/>			KGI report, pg 12 and 13
5.2.3	Indirect GHG emissions	Using those criteria, the organization shall identify and evaluate its indirect GHG emissions, to select the significant ones.	<input checked="" type="checkbox"/>			KGI report, pg 12 and 13
5.2.3	Indirect GHG emissions	Organization shall quantify and report these significant emissions. Exclusions of significant indirect emissions shall be justified.	<input checked="" type="checkbox"/>			KGI report, pg 12 and 13
5.2.4	GHG inventory categories	GHG emissions shall be aggregated into the following categories at the organizational level: a) direct GHG emissions and removals; b) indirect GHG emissions from imported energy; c) indirect GHG emissions from transportation; d) indirect GHG emissions from products used by organization; e) indirect GHG emissions associated with the use of products from the organization; f) indirect GHG emissions from other sources.	<input checked="" type="checkbox"/>			KGI report, pg 12, 13, 14

Clause	Contents	Description	Compliance	Non-compliance	Not Applicable	Remarks (if there is a file name, please specify)
5.2.4	GHG inventory categories	In each category, non-biogenic emissions, biogenic anthropogenic emissions and, if quantified and reported, biogenic non-anthropogenic emissions shall be separated (see Annex D).			<input checked="" type="checkbox"/>	No biogenic emissions
6.1	Identification of GHG sources and sinks	organization shall identify and document all relevant GHG sources and sinks included in its reporting boundaries. The organization shall include all relevant GHGs.	<input checked="" type="checkbox"/>			KGI report, pg 12 and 13
6.1	Identification of GHG sources and sinks	GHG sources and sinks shall be identified in accordance with the categories defined in 5.2.4.	<input checked="" type="checkbox"/>			KGI report, pg 12 and 13
6.1	Identification of GHG sources and sinks	Organization quantifies GHG removals, the organization shall identify and document GHG sinks contributing to its GHG removals.			<input checked="" type="checkbox"/>	No removals
6.1	Identification of GHG sources and sinks	Detail with which sources and sinks are identified and categorized shall be consistent with the quantification approach used.	<input checked="" type="checkbox"/>			KGI report, pg 14 and 15
6.1	Identification of GHG sources and sinks	Organization shall identify and explain why the GHG sources or sinks are excluded in accordance with the categories and any categorical subdivisions included in the report (see 5.2.3).	<input checked="" type="checkbox"/>			KGI report, pg 14 and 15

Clause	Contents	Description	Compliance	Non-compliance	Not Applicable	Remarks (if there is a file name, please specify)
6.2	Selection of quantification approach	Organization shall select and use quantification methodologies that minimize uncertainty and yield accurate, consistent and reproducible results.	<input checked="" type="checkbox"/>			KGI report, pg 14 and 15
6.2	Selection of quantification approach	Organization shall explain and document its quantification approach and any changes in quantification approach.	<input checked="" type="checkbox"/>			KGI report, pg 14 and 15
6.2.2	Data selection and collection used for quantification	Organization shall identify and document its data for each source or sink classified as direct or indirect emissions and removals.	<input checked="" type="checkbox"/>			KGI report, pg 14 and 15
6.2.2	Data selection and collection used for quantification	Organization shall determine and document the characteristics for each relevant data used for quantification (see 5.2.3).	<input checked="" type="checkbox"/>			KGI report, pg 14 and 15
6.2.3	Selection or development of GHG quantification model	Except in the case of measurement of emissions and removals, the organization shall select or develop models for the quantification approach.			<input checked="" type="checkbox"/>	No direct measurement

Clause	Contents	Description	Compliance	Non-compliance	Not Applicable	Remarks (if there is a file name, please specify)
6.2.3	Selection or development of GHG quantification model	Organization shall explain and document the justification for the selection or development of the model, considering the following model characteristics: a) how the model accurately represents the emissions and removals; b) its limits of application; c) its uncertainty and rigour; d) the reproducibility of results; e) the acceptability of the model; f) the origin and level of recognition of the model; g) the consistency with the intended use.			<input checked="" type="checkbox"/>	No direct measurement
6.3	Calculation of GHG emissions and removals	Organization shall calculate GHG emissions and removals in accordance with the quantification approach selected (see 6.2).	<input checked="" type="checkbox"/>			KGI report, pg 14 and 15
6.3	Calculation of GHG emissions and removals	The period for which GHG emissions and removals have been calculated shall be reported.	<input checked="" type="checkbox"/>			KGI Report, page 8
6.3	Calculation of GHG emissions and removals	Organization shall convert the quantity of each type of GHG to tonnes of CO ₂ e using appropriate Global Warming Potential (GWPs).	<input checked="" type="checkbox"/>			KGI Report, Introduction
6.3	Calculation of GHG emissions and removals	Organization shall quantify biogenic emissions or removals in accordance with Annex D.			<input checked="" type="checkbox"/>	No biogenic emissions

Clause	Contents	Description	Compliance	Non-compliance	Not Applicable	Remarks (if there is a file name, please specify)
6.3	Calculation of GHG emissions and removals	Organization shall quantify emissions or removals from imported electricity that is consumed by the organization, and of exported electricity generated by the organization, in accordance with Annex E.	<input checked="" type="checkbox"/>			See Appendix B - Calculations
6.4.1	Selection and establishment of base year	Organization shall establish a historical base year for GHG emissions and removals for comparative purposes or to meet GHG programme requirements or other intended uses of the GHG inventory.	<input checked="" type="checkbox"/>			KGI Report, page 8
6.4.1	Selection and establishment of base year	In establishing the base year, the organization: a) shall quantify base-year GHG emissions and removals using data representative of the organization's current reporting boundary, typically single-year data, a consecutive multi-year average or a rolling average; b) shall select a base year for which verifiable GHG emissions or removals data are available; c) shall explain the selection of the base year; d) shall develop a GHG inventory for the base year consistent with the provisions of this document.	<input checked="" type="checkbox"/>			KGI Report, page 8

Clause	Contents	Description	Compliance	Non-compliance	Not Applicable	Remarks (if there is a file name, please specify)
6.4.2	Review of base-year GHG inventory	To ensure the representativeness of the base-year GHG inventory, the organization shall develop, document and apply a base-year review and recalculation procedure to account for substantial cumulative changes in base-year emissions resulting from: a) a structural change in reporting or organizational boundaries (i.e. merger, acquisition or divestiture), or b) a change in calculation methodologies or emission factors, or c) the discovery of an error or a number of cumulative errors that are collectively substantial.	<input checked="" type="checkbox"/>			
6.4.2	Review of base-year GHG inventory	organization shall document base-year recalculations in subsequent GHG inventories.			<input checked="" type="checkbox"/>	Not applicable as this is the base year
7.1	GHG emission reduction and removal enhancement initiatives	If quantified and reported, the organization shall document GHG reduction initiatives and associated GHG emission or removal differences separately, and shall describe: a) the GHG reduction initiatives; b) the spatial and temporal boundaries of the GHG reduction initiatives; c) the approach (appropriate indicators) used to quantify GHG emission or removal differences; d) the determination and classification of GHG emission or removal differences attributable to GHG reduction initiatives as direct or indirect GHG emissions or removals.			<input checked="" type="checkbox"/>	No reduction and remove enhancement initiatives reported

Clause	Contents	Description	Compliance	Non-compliance	Not Applicable	Remarks (if there is a file name, please specify)
7.2	GHG emission reduction or removal enhancement projects	If the organization wants to report the offset amount of its purchase or development, the organization should separately list the offset amount generated by the greenhouse gas reduction measures.			<input checked="" type="checkbox"/>	No reduction and remove enhancement initiatives reported
7.3	GHG emission reduction or removal enhancement targets	If the organization reports a target, the following information shall be specified and reported: — period covered by the target, including the target reference year and the target completion year; — type of target (intensity or absolute); — category of emissions included in the target; — the amount of reduction and its unit expressed in accordance with the type of target.			<input checked="" type="checkbox"/>	No reduction and remove enhancement initiatives reported
8.1	GHG information management	Organization shall establish and maintain GHG information management procedures that: a) ensure conformity with the principles of this document; b) ensure consistency with the intended use of the GHG inventory; c) provide routine and consistent checks to ensure accuracy and completeness of the GHG inventory; d) identify and address errors and omissions; e) document and archive relevant GHG inventory records, including information management activities and GWPs.	<input checked="" type="checkbox"/>			KGI Report, page 9 and 10

Clause	Contents	Description	Compliance	Non-compliance	Not Applicable	Remarks (if there is a file name, please specify)
8.1.2	GHG information management	<p>Organization's GHG information management procedures shall document their consideration of the following:</p> <ul style="list-style-type: none"> a) identification and review of the responsibility and authority of those responsible for GHG inventory development; b) identification, implementation and review of appropriate training for members of the inventory development team; c) identification and review of organizational boundaries; d) identification and review of GHG sources and sinks; e) selection and review of quantification approaches, including data used for quantification and GHG quantification models that are consistent with the intended use of the GHG inventory; f) review of the application of quantification approaches to ensure consistency across multiple facilities; g) use, maintenance and calibration of measurement equipment (if applicable); h) development and maintenance of a robust data-collection system; i) regular accuracy checks; j) periodic internal audits and technical reviews; k) periodic review of opportunities to improve information management processes. 	☒			KGI Report, page 9 and 10
8.2	Document retention and record keeping	Organization shall establish and maintain procedures for document retention and record keeping.	☒			KGI Report, page 9 and 10

Clause	Contents	Description	Compliance	Non-compliance	Not Applicable	Remarks (if there is a file name, please specify)
8.2	Document retention and record keeping	Organization shall retain and maintain documentation supporting the design, development and maintenance of the GHG inventory to enable verification. The documentation, whether in paper, electronic or other format, shall be handled in accordance with the organization's GHG information management procedures for document retention and record keeping.	<input checked="" type="checkbox"/>			KGI Report, page 9 and 10
8.3	Assessing uncertainty	Organization shall assess the uncertainty associated with the quantification approaches (e.g. data used for quantification and models) and conduct an assessment that determines the uncertainty at the GHG inventory category level.	<input checked="" type="checkbox"/>			KGI Report, page 15 and 16
8.3	Assessing uncertainty	Where quantitative estimation of uncertainty is not possible or cost effective, it shall be justified and a qualitative assessment shall be conducted.	<input checked="" type="checkbox"/>			KGI Report, page 15 and 16
9.1	GHG reporting	GHG report shall be prepared if the organization chooses to have its GHG inventory verified or makes a public GHG statement claiming conformity with this document.	<input checked="" type="checkbox"/>			KGI Report
9.1	GHG reporting	GHG reports shall be complete, consistent, accurate, relevant, transparent and planned in accordance with 9.2.	<input checked="" type="checkbox"/>			KGI Report

Clause	Contents	Description	Compliance	Non-compliance	Not Applicable	Remarks (if there is a file name, please specify)
9.1	GHG reporting	If the organization's GHG statement has been independently (third-party) verified, the verification statement shall be made available to intended users.	<input checked="" type="checkbox"/>			KGI Report and certificate will be shared with KGI Group
9.1	GHG reporting	If confidential data are withheld from inclusion in a GHG report, this shall be justified.			<input checked="" type="checkbox"/>	No confidential data
9.2	Planning the GHG report	Organization shall explain and document the following in planning its GHG report: a) purpose and objectives of the report in the context of the organization's GHG policies, strategies or programmes, and applicable GHG programmes; b) intended use and intended users of the GHG inventory; c) overall and specific responsibilities for preparing and producing the report; d) frequency of the report; e) report structure and format; f) data and information to be included in the report; g) policy on availability and methods of dissemination of the report.	<input checked="" type="checkbox"/>			KGI report
9.3.1	Required information for GHG report content	Organization's GHG report shall describe the organization's GHG inventory. Its content may be structured as recommended in Annex F.	<input checked="" type="checkbox"/>			KGI report

Clause	Contents	Description	Compliance	Non-compliance	Not Applicable	Remarks (if there is a file name, please specify)
9.3.1	Required information for GHG report content	<p>GHG report content shall include the following:</p> <ul style="list-style-type: none"> a) description of the reporting organization; b) person or entity responsible for the report; c) reporting period covered; d) documentation of organizational boundaries (5.1); e) documentation of reporting boundaries, including criteria determined by the organization to define significant emissions; f) direct GHG emissions, quantified separately for CO₂, CH₄, N₂O, NF₃, SF₆ and other appropriate GHG groups (HFCs, PFCs, etc.) in tonnes of CO₂e (5.2.2); g) a description of how biogenic CO₂ emissions and removals are treated in the GHG inventory and the relevant biogenic CO₂ emissions and removals quantified separately in tonnes of CO₂e (see Annex D); h) if quantified, direct GHG removals, in tonnes of CO₂e (5.2.2); i) explanation of the exclusion of any significant GHG sources or sinks from the quantification (5.2.3); j) quantified indirect GHG emissions separated by category in tonnes of CO₂e (5.2.4); k) the historical base year selected and the base-year GHG inventory (6.4.1); l) explanation of any change to the base year or other historical GHG data or categorization and any recalculation of the base year or other historical GHG inventory (6.4.1), and documentation of any limitations to comparability resulting from such recalculation; m) reference to, or description of, quantification approaches, including reasons for their selection (6.2); n) explanation of any change to quantification approaches previously used (6.2); 	☑			KGI report

Clause	Contents	Description	Compliance	Non-compliance	Not Applicable	Remarks (if there is a file name, please specify)
		<p>o) reference to, or documentation of, GHG emission or removal factors used (6.2);</p> <p>p) description of the impact of uncertainties on the accuracy of the GHG emissions and removals data per category (8.3);</p> <p>q) uncertainty assessment description and results (8.3);</p> <p>r) a statement that the GHG report has been prepared in accordance with this document;</p> <p>s) a disclosure describing whether the GHG inventory, report or statement has been verified, including the type of verification and level of assurance achieved;</p> <p>t) the GWP values used in the calculation, as well as their source. If the GWP values are not taken from the latest IPCC report, include the emissions factors or the database reference used in the calculation, as well as their source.</p>				
10	Organization's role in verification activities	In order to review GHG emissions and removals information, impartially and objectively, the organization shall conduct a verification consistent with the needs of the intended user.	<input checked="" type="checkbox"/>			SGS is conducting verification

Appendix IV: Findings Overview

FINDINGS OVERVIEW

CUSTOMER NUMBER : SG/SIN/604095

CUSTOMER NAME : KGI SECURITIES (SINGAPORE) PTE LTD (KGISS)

YEAR OR INTERVAL OF THIS INSPECTION: 1 JAN 2023 TO 31 DEC 2023

CITATION CRITERIA FOR THIS INSPECTION:

☒ ISO 14064-1:2018 ☐ WBCSD/WRI GREENHOUSE GAS (GHG) PROTOCOL ☐ OTHER:

※ Previous verification of tracking matters

Forward Action Requests (FARs) Outstanding from previous verification(s)

N/A

※ Findings of this Verification

The results of the discoveries of this inspection	NIR	CAR	FAR	OBS
The number of items	0	5	2	1

✧ **Corrective Action requests (CARs) and New Information Requests (NIRs)**

No.	Category	Corresponding location Ref	Description of Issue found	Reply by Responsible Party	Lead verifier Comment(s)	Status of case closure
1.	CAR	Purchased Cooling	8 April 2024 Valerie Koh [Description] Purchased Cooling has been excluded from inventory.	17 April 2024 Meng Wai [Description] Inventory has been updated 22 April 2024 Meng Wai [Description] Inventory and report has been updated	17 April 2024 Valerie Koh [Description] Calculation approach and Sep-24 data for level 12 is inaccurate. 23 April 2024 Valerie Koh [Description] All previous errors have been corrected	23 April 2024 Valerie Koh [Description] Closed
2.	CAR	Purchased Goods and Services	8 April 2024 Valerie Koh [Description] Current inventory uses v1.1 from EPA which is not the most up to date version.	17 April 2024 Meng Wai [Description] Inventory and report has been updated	17 April 2024 Valerie Koh [Description] Verified that database version is correct. Pending update based on new activity data (see CAR 4)	23 April 2024 Valerie Koh [Description] Closed
3.	CAR	Employee Commute	8 April 2024 Valerie Koh	17 April 2024 Meng Wai	17 April 2024 Valerie Koh	23 April 2024 Valerie Koh

No.	Category	Corresponding location Ref	Description of Issue found	Reply by Responsible Party	Lead verifier Comment(s)	Status of case closure
			[Description] Number of employees and type of employee (full time permanent, contract, secondees, freelancers) is not accurate; assumption that all employees use MRT only for commute is not probable	[Description] Calculation approach has been updated 22 April 2024 Meng Wai [Description] Inventory and report has been updated	[Description] Number of employees in the report is inaccurate. 23 April 2024 Valerie Koh [Description] All previous errors have been corrected	[Description] Closed
4.	CAR	Purchased Goods and Services	17 April 2024 Valerie Koh [Description] Top 5 spend items not identified correctly	22 April 2024 Meng Wai [Description] Inventory and report has been updated	23 April 2024 Valerie Koh [Description] All previous errors have been corrected	23 April 2024 Valerie Koh [Description] Closed
5.	CAR	Business Travel Flights	17 April 2024 Valerie Koh [Description] Activity data not accurate 1) Sydney flight did not start from Singapore 2) Flights during transit not accounted for	28 April 2024 Meng Wai [Description] Inventory and report has been updated	29 April 2024 Valerie Koh [Description] All previous errors have been corrected	29 April 2024 Valerie Koh [Description] Closed

※ **Forward Action Requests (FARs) raised in this verification**

serial number No.	Corresponding location Ref	Description of Issue found	Reply by Responsible Party
1.	FAR	8 April 2024 Valerie Koh [Description] Organisation to consider collecting actual data to calculate emissions from employee commute to improve data accuracy.	8 April 2024 [Description] Organisation is keen to implement survey next year.
2.	FAR	17 April 2024 Valerie Koh [Description] Organisation to consider including all purchased goods when accounting for Scope 3 purchased goods to improve completeness of inventory.	29 April 2024 [Description] Organisation will consider including complete Scope 3 inventory.


※ **Observations**


serial number No.	Explanation of observations Observation
1.	8 April 2024 Valerie Koh Organisation can ensure date range stated on calculation sheet tabulating onsite electricity consumed is accurate. Currently, data range on the sheet consistently excludes last few days of the month. However, actual consumption data is complete for the full year.

※ Objective Evidence Pack

No.	Description of Issue found	Quantity	Verifier	Notes
1.	12 months electricity bills - Unit 13	12	VK	- Sampled documents - No discrepancies were detected
2.	12 months electricity bills - Unit 12&13	12	VK	- Sampled documents - No discrepancies were detected
3.	12 months of purchased cooling (chilled water) for Unit 13	12	VK	- Sampled documents - No discrepancies were detected
4.	12 months of purchased cooling (chilled water) for Unit 12 and 13	12	VK	- Sampled documents - No discrepancies were detected
5.	Samples of business trips - boarding pass and invoice	9	VK	- Sampled documents - No discrepancies were detected
6.	Seasonal Parking Invoice	1	VK	- Sampled documents - No discrepancies were detected
7.	[Headcount Summary] HR data summary for number of employees (Full time permanent, Secondes, Contract, and Freelance (i.e. Self-employed) as of 31 Dec 2023	1	VK	- Sampled documents - No discrepancies were detected
8.	[Headcount Report] HR data extract as evidence for summary (169 rows)	1	VK	- Sampled documents - No discrepancies were detected
9.	[Fire extinguishers] Fugitive Emissions FM200 – weight 463.3lb and 260lb in email from vendor	1	VK	- Sampled documents - No discrepancies were detected
10.	[Travel request] Breakdown of single and multiple trips by class, origin/destination	2	VK	- Sampled documents - No discrepancies were detected
11.	[Travel Request] SAP concur extract of business travel expenses (90 rows)	1	VK	- Sampled documents - No discrepancies were detected
12.	[Invoice 18.04.2024 sent (sheet 3)] Total spend breakdown for office management, by vendor (SGD \$2,396,842 spent in 2023) - Sheet 3 from SAP report	1	VK	- Sampled documents - No discrepancies were detected

Appendix V: Technical Review Status

Sign the confirmation		
Lead Verifier		Sign
Name	Valerie Koh	
Comments	Accepted	
Recommendation	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Report Date	29 April 2024	
Technical Reviewer		Sign
Name		
Comments		
Recommendation	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Report Date		

Responsible Party	KGI Hong Kong Limited	
Verification Criteria	ISO 14064-1:2018	
Reporting Period	1 st January 2023 – 31 st December 2023	
GHG Emission Results from Responsible Party's GHG Statement	Direct GHG Emissions	9.45 tonnes of CO ₂ e
	Indirect GHG Emissions from Imported Energy	659.51 tonnes of CO ₂ e
	Indirect GHG Emissions from Transportation	19.68 tonnes of CO ₂ e
	Indirect GHG Emissions from Products used by the Responsible Party	42.68 tonnes of CO ₂ e
	Indirect GHG Emissions Associated with the used of Products from the Responsible Party	Not quantified
	Indirect GHG Emissions from Other Sources	Not quantified
	Total Direct and Indirect GHG Emissions	731.32 tonnes of CO₂e
	CO ₂ Emissions from Combustion of Biomass	Not applicable
	GHG Removals	Not quantified
Verification Date(s):	9 th , 26 th , 27 th & 28 th February 2024	
SGS Delivering Office:	SGS Hong Kong Limited	
Address:	Units 303 & 305, 3/F, Building 22E, Phase 3, Hong Kong Science Park, NT, Hong Kong	
Verification Team Leader:	Cherie Mak 	
Other Accompanying Person (Names & Roles)	Anson Chin (Member under supervision)	

SGS has been contracted by KGI Hong Kong Limited (hereinafter referred to as "CLIENT"), 41/F, Central Plaza, 18 Harbour Road, Wan Chai, Hong Kong, for the Greenhouse Gas (GHG) verification in accordance with ISO 14064-3:2019 as provided by KGI Hong Kong Limited (hereinafter referred to as "RESPONSIBLE PARTY"), 41/F, Central Plaza, 18 Harbour Road, Wan Chai, Hong Kong, in the GHG Statement in the form of *Organizational Greenhouse Gas Inventory Report 2023* (Date: 29th February 2024) covering GHG emissions of the period 1st January 2023 to 31st December 2023.

1. VERIFICATION OBJECTIVES

The purposes of this verification exercise were, by review of objective evidence, to independently review:

- Conformance with agreed verification criteria, including the principles and requirements of relevant standards or GHG programmes, if applicable, within the scope of the verification;
- Whether the GHG emissions were as declared by the organization's GHG Statement.

2. VERIFICATION CRITERIA AND REFERENCE

Criteria against which the verification assessment undertaken were the requirement of:

- ISO 14064-1:2018

Other references which the verification assessment considered were:

- Not applicable

3. VERIFICATION SCOPE

This engagement covered verification of emissions from anthropogenic sources of GHGs included within the scope outlined below.

- The organization boundary was established following operational control approach
- Location/boundary of the activities:
 - o Head Office – 3601-02, 37/F & 41/F, Central Plaza, 18 Harbour Road, Wan Chai, Hong Kong
 - o Mong Kok Branch – Suites 3502-03 & 05A, Langham Place, 8 Argyle Street, Mong Kok, Kowloon, Hong Kong
 - o Tsuen Wan Branch – Units 1506 & 1510, 15/F, KOLOUR Tsuen Wan I, 68 Chung On Street, Tsuen Wan, New Territories, Hong Kong
- Physical infrastructure, activities, technologies and processes of the organization:
 - o Offering financial services.
- GHG sources, sinks and/or reservoirs included: GHG sources as presented in the *Organizational Greenhouse Gas Inventory Report 2023* (Date: 29th February 2024) of the RESPONSIBLE PARTY, which comprises the following emission categories
 - o Direct GHG emissions
 - o Indirect GHG emissions from imported energy
 - o Indirect GHG emissions from transportation
 - Emissions from business travel by Airport Express
 - Emissions from business travel by multi-purpose vehicles in Hong Kong
 - Emissions from business travel by taxi in Hong Kong
 - Emissions from business travel by air
 - Emissions from upstream transportation of office paper by truck
 - Emissions from upstream transportation for printer maintenance service by MTR
 - o Indirect GHG emissions from products used by the RESPONSIBLE PARTY

- Emissions from upstream transmission & distribution loss by HKE and CLP on electricity purchased by the organization
- Emissions from office paper purchased by the organization
- Emissions from general waste disposed from designated site to landfill by the organization
- Emissions from paper wastes for recycling by the organization
- Emissions from electronic wastes for recycling by the organization
- Types of GHGs included: CO₂, CH₄, N₂O, HFCs, PFCs, SF₆ and NF₃
- GWP adopted: IPCC Sixth Assessment Report
- GHG information for the following period was verified: 1st January 2023 to 31st December 2023
- Level of assurance: Reasonable assurance
- Materiality thresholds: without major non-conformance to the agreed criteria in GHG quantification and reporting, and less than 5% error in misclassified GHG emissions of misapplication of calculations

4. ROLES AND RESPONSIBILITY

The management of the RESPONSIBLE PARTY was responsible for the organization's GHG information system, the development and maintenance of records and reporting procedures in accordance with that system, including the calculation and determination of GHG information and the reported GHG emissions. This responsibility includes designing, implementing and maintaining a data management system relevant to the preparation and fair presentation of a GHG Statement in accordance with ISO 14064-1:2018.

It was SGS's responsibility to express a third party GHG verification opinion on the GHG Statement as provided by the RESPONSIBLE PARTY for the period 8th February 2024 to 29th February 2024 against the principles and requirements of ISO 14064-3:2019.

5. SUMMARY OF THE GHG STATEMENT

The GHG emission results presented in 2023 GHG Statement in the form of *Organizational Greenhouse Gas Inventory Report 2023* (Date: 29th February 2024) of the RESPONSIBLE PARTY were listed below.

- Direct GHG emissions and removals: 9.45 tonnes of CO₂e
- Indirect GHG emissions from imported energy: 659.51 tonnes of CO₂e
- Indirect GHG emissions from transportation: 19.68 tonnes of CO₂e
- Indirect GHG emissions from products used by the RESPONSIBLE PARTY: 42.68 tonnes of CO₂e
- Indirect GHG emissions associated with the use of products from the RESPONSIBLE PARTY: not quantified
- Indirect GHG emissions from other sources: not quantified
- GHG Removals: not quantified

6. EVIDENCE GATHERING ACTIVITIES

SGS planned and performed works to obtain the information, explanations and evidence which SGS considered necessary to provide a reasonable level of assurance that the GHG emissions for the period 1st January 2023 to 31st December 2023 were fairly stated. The verification was mainly conducted through document review, interview, observation and site visit in sampling. The evidence gathering procedures included but not limited to:

- Review and assessment of the RESPONSIBLE PARTY's GHG information management system and its control;



VERIFICATION REPORT

Report Issue Date: 29th February 2024

- Inspect the completeness of the RESPONSIBLE PARTY's inventory;
- Sampling of GHG emissions related activity data record to confirm accuracy of source data into calculations;
- Recalculation of emissions;
- Assessment against verification criteria, as well as evaluation of the GHG statement of the RESPONSIBLE PARTY

The data and information examined during the verification were hypothetical and historical in nature.

7. VERIFICATION OPINION

In SGS's opinion the presented GHG Statement by the RESPONSIBLE PARTY

- is materially correct and is a fair representation of the GHG data and information, and
- is prepared in accordance with the agreed criteria on GHG quantification and reporting.

Please refer to SGS Verification Opinion HK24/00000058 for the details of verification opinion.