



Carbon Footprint Report

Prepared by:
Regional Center for Renewable Energy and Energy Efficiency

RCREEE

Regional Center for Renewable Energy and Energy Efficiency
المركز الإقليمي للطاقة المتجددة وكفاءة الطاقة

2023



بنك بيت التمويل الكويتي

KFH
EGYPT

ABOUT THIS REPORT

Important disclaimer

This report presents the initial GHG inventory assessment of KFH Egypt operations, encompassing all branches for the calendar year 2023. It is important to note that during the reporting period addressed by this report, KFH Egypt local operations was still operating under the KFH Brand, which was a transitional period that ended on in January 2025 after the acquisition of KFH Egypt by KFH was concluded in 2022.

KFH Egypt Contact person

This report and the relevant data within is managed by the Projects & Properties department in KFH Egypt for any inquiries please reach out to

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Any errors and typographical mistakes present in the published report are not intentional and the bank commits to correcting them on its website.

By adhering to the World Resources Institute (WRI) Greenhouse Gas Protocol principles, this report ensures the relevance, completeness, consistency, transparency, and accuracy of all data collected and analyzed. This foundational assessment marks a significant step towards a more sustainable future for KFH Egypt, aligning with the growing global movement towards decarbonization and responsible banking practices.



Table of Contents

About This Report & Important Disclaimer	2
KFH Egypt Contact Person	2
CEO's Message	5
Executive Summary	6
Third-Party Limited Assurance Statement	7
Introduction	9
Purpose and Objectives	11
Scope of the Report	12
Why GHG Reporting Matters for KFH Egypt	12
Regulatory Context (Central Bank of Egypt Guidelines)	13
Report Audience and Use Cases	13
Alignment with Global Standards & National Strategies	13
Organisational & Operational Boundaries	14
• Definition of Organisational Boundaries	14
• Identification of Operational Boundaries (Scopes 1-3)	14
• Treatment of Subsidiaries, Branches & Leased Assets	14
GHG Emissions Covered in the Report	16
Geographic Coverage	16
GHG Calculation Methodology	17
• Activity-Data Collection Process	17
• Emission Factors Applied	17
GHG Emission Sources Identified	18
• Calculation Tools / Software Used	18
• Assumptions and Limitations	18
Scope 1 Emissions	19
• Description of Scope 1 Sources	19
• Data-Collection & Calculation Methodologies	19
• Scope 1 Emission Totals (CY 2023)	20
• Next Steps to Reduce Scope 1 Emissions	20

Scope 2 Emissions	27
• Methodology & Activity Data	28
• Scope 2 Emission Totals (CY 2023)	27
• Electricity-Use Intensity & Outlier Analysis	29
Emissions-Reduction Strategy & Planned Initiatives	33
Reduction Targets, Offsets & Internal Carbon Pricing	33
Data Quality & Uncertainty Management	35
Planned Improvements for Future Data Quality	37
Appendices	38
Glossary of Key Terms	39
Annex A Generator Inventory	40
Annex B Scope 2 Activity-Data Table	40
Annex C Branch-level EUI Dataset	40
Annex D Detailed Assurance Findings & Management Response	40

CEO's Message

Dear Valued Stakeholders,

It is a great pleasure to present to you **Kuwait Finance House Bank Egypt's** first comprehensive **Carbon Footprint** assessment of the entire operations. This report marks a significant milestone in our sustainability journey, building on the initial evaluation conducted for our headquarters in 2021. It reflects our unwavering commitment to minimizing environmental impact and advancing meaningful, positive changes across our operations.



While this report documents the full-year performance of our institution as **Ahli United Bank – Egypt**, it also carries the momentum of a new identity: **Kuwait Finance House Bank– Egypt (KFH-Egypt)**, officially launched in February 2025.

We firmly believe that financial success must go hand in hand with environmental stewardship and social responsibility. This Carbon Footprint Report stands as a testament to our dedication to these values. By disclosing our emissions transparently, we reinforce our commitment to accountability and continuous improvement.

This in-depth assessment has provided critical insights into our environmental performance, allowing us to identify key areas for improvement and set ambitious targets for the future. In recognition of the urgent global need to combat climate change, we are fully committed to contributing to this vital cause. Our strategy includes investing in energy-efficient technologies, embedding sustainable practices across all operations, and engaging proactively with stakeholders to foster collective action.

Our commitment to sustainability is not just aspirational, it is actionable. In 2023, we invested **EGP 44 million** to enhance the thermal performance and climate resilience of our Head Office Building façade. A further **EGP of 25 million** were allocated to support the transformation of our office buildings and branch network to be more energy efficient. These initiatives are already delivering results.

Our New Cairo headquarters has achieved a **12% reduction in energy consumption** and a **17% decrease in diesel usage** compared to 2021, clear evidence of our progress toward sustainable operations.

These accomplishments are just the beginning of our broader sustainability journey. Looking ahead, we are targeting a **15% reduction in our carbon footprint** over the next three years. We remain committed to integrating sustainability into every facet of our operations, with the goal of creating long-term value for KFH-Egypt and the communities we serve.

Together, we are not just building a sustainable bank- we are shaping a legacy of responsibility, innovation, and impact.

Thank you for your continued trust, support, and partnership as we work together toward a more sustainable future.

Sincerely,

Hala Sadek

Hala Sadek

**Chief Executive Officer & Board Member
Kuwait Finance House Bank – Egypt**

Executive Summary

Why this report 2023 marks Kuwait Finance House Bank – Egypt – (KFH Egypt) first full-fleet Greenhouse Gas (GHG) inventory. By quantifying operational emissions we lay the foundation for science-based targets, tighter risk management, and full alignment with the Central Bank of Egypt’s sustainable-finance directives.

Coverage The inventory applies the GHG Protocol Corporate Standard (operational-control boundary) and captures 100 % of Scope 1 direct emissions and Scope 2 purchased electricity across 43 branches, 3 archives, and the head-office campus.

Key numbers, CY 2023

- Scope 1: 582.9 t CO₂e (55.2 % fleet fuel, 40.9 % refrigerants, 3.9 % diesel generators)
- Scope 2: (location-based) 3,067.1 t CO₂e from 8.14 GWh grid electricity
- Combined operational footprint 3,650 t CO₂e
- Electricity-use intensity median 250 kWh m⁻² yr⁻¹; outlier analysis flags 4 branches for data-quality review.

What we learned

1. Electricity usage is the biggest source of emissions representing around 84% of total emissions, creating an excellent opportunity for decarbonization
2. Refrigerant leakage, though <0.1 % of total bank purchases, accounts for >40 % of Scope 1 CO₂e—rapid payback for leak-detection upgrades.
3. Electricity intensities vary 11-fold; a data-driven branch retrofit programme can deliver fast wins.

Our next steps

- **Target-setting:** Finalize a 2027 interim reduction target consistent with Egypt’s NDC pathway.
- **Data infrastructure:** Deploy automated energy metering at all prepaid-meter sites by Q2-2026.
- **Transparency roadmap:** Publish Scope 3 screening and financed-emissions methodology in the 2024 report.

Together, these actions position KFH Egypt to finance the low-carbon transition while reducing the footprint of our own operations.

3rd Party Assurance Statement

Independent Limited Assurance Report on KFH Egypt 2023 GHG Inventory

Addressee Stakeholders of Kuwait Finance House Bank-Egypt - (KFH Egypt)

Scope of engagement

- Subject matter: reported Scope 1 and Scope 2 GHG emissions for the period 1 Jan – 31 Dec 2023 as disclosed in this report.
- Criteria: WRI/WBCSD GHG Protocol (2004, rev-2015); ISO 14064-3:2019 assurance requirements.
- Level of assurance: Limited (in line with ISAE 3000 Revised).

Responsibilities

- Management of KFH Egypt is responsible for preparing the GHG inventory, selecting appropriate emission factors, and maintaining effective internal controls.
- Our responsibility is to express a conclusion based on the procedures performed. And provide advice on how to improve the quality of the reporting for future years

Methodology

1. Reviewed organizational and operational boundaries, ensuring consistency with the operational-control approach.
2. Evaluated calculation spreadsheets, emission factors (EEHC grid EF; IPCC 2006/2019 refinements), and conversion assumptions for spend-based estimates.
3. Conducted site-level walkthroughs (Head Office, New Cairo) to verify source data for electricity, fuel, and refrigerants.
4. Performed analytical procedures on branch-level EUI outliers and reconciled 95% of activity data to primary evidence (utility bills, fuel invoices, maintenance logs).
5. Assessed the adequacy of the bank's data-quality and uncertainty disclosures.
6. Materiality

Consistent with the engagement plan, a quantitative materiality threshold of 5 % of the combined Scope 1 + Scope 2 footprint (183 t CO₂e) was applied, together with qualitative considerations such as potential control failures or regulatory non compliance.

Basis for Qualified Conclusion

During our engagement we requested original electricity invoices for 23 flagged readings across eight branches, representing approximately 448 MWh of electricity consumption ($\approx$ 169 t CO₂e, 4.6 % of total operational emissions). Management was unable to provide these records or alternative primary evidence. Consequently, we were unable to obtain sufficient appropriate evidence to determine whether adjustments might be necessary to the reported Scope 2 emissions in respect of these branches.

Qualified Conclusion

Except for the possible effects of the matter described in the Basis for Qualified Conclusion paragraph, nothing has come to our attention that causes us to believe that the Scope 1 and Scope 2 greenhouse gas emissions for the year ended 31 December 2023, as presented in the Report, are not prepared, in all material respects, in accordance with the stated criteria.

Statement of Independence

Carboni is currently engaged in an ongoing consulting services provision with RECREE the assigned consulting firm to write the report. We have been asked to provide advice regarding that report which doesn't affect our independence such as data analysis and ongoing support to improve data quality submitted by KFH Egypt.

Signature

Dr, Amir Gerges,

Amir Gerges

Founder and CEO

Introduction

Climate change is one of the defining challenges of our time, carrying profound implications for societies, economies, and global financial systems. As the world accelerates its transition toward a sustainable and resilient future, financial institutions have a critical role to play in supporting and shaping this transformation.

This Greenhouse Gas (GHG) Inventory Report marks the beginning of Kuwait Finance House Bank – Egypt (KFH Egypt) journey toward understanding and managing its environmental impact. As a first step, we have assessed and disclosed our operational emissions, including Scope 1 (direct emissions from owned or controlled sources) and Scope 2 (indirect emissions from purchased electricity, heat, and cooling). These emissions provide a clear starting point for our internal climate action efforts and reflect our commitment to integrating sustainability into our core business practices.

While this initial report does not yet include Scope 3 emissions—such as those related to business travel, client activities (e.g., clients traveling to branches for transactions), or financed emissions from lending and investment activities—we acknowledge the significance of these categories in capturing the full climate impact of financial institutions. Measuring and reporting Scope 3 emissions is a high priority for KFH Egypt, and we are actively developing the necessary systems, data infrastructure, and methodologies to address these emissions in future reporting cycles.

Currently, no official baseline year has been established. This report represents our initial effort in GHG reporting, aimed at identifying gaps and building a strong reporting infrastructure. This foundation will enable us to establish a credible baseline year in the near future, upon addressing data and methodological gaps.

Our GHG inventory aligns with internationally recognized frameworks, particularly the GHG Protocol, and serves as the foundation for setting emission reduction targets, improving operational efficiency, and identifying further opportunities for emission reduction. It also represents a meaningful step toward greater accountability, preparing KFH Egypt for evolving regulatory expectations and stakeholder demands.

In line with the Central Bank of Egypt's directives on sustainable finance—which encourage banks operating in Egypt to enhance their climate-related disclosures and environmental risk management practices—we are committed to progressively aligning with national priorities and global sustainability standards. These mandates reflect the growing expectation that financial institutions assess and disclose climate risks as part of their comprehensive risk management frameworks.

As part of our commitment, we are building a robust reporting infrastructure to track emissions more accurately, enhance transparency, and develop credible, science-informed emission reduction targets. This foundation is essential for aligning our operations with global climate goals and positioning KFH Egypt as a responsible and forward-looking financial institution.

This report reflects our broader, long-term commitment to sustainable finance. As we progress, we aim to embed climate considerations deeper into our strategy, operations, and organizational culture—recognizing that what we measure today will shape what we manage tomorrow.

We look forward to engaging with stakeholders—including customers, employees, investors, regulators, industry peers, and local communities—to learn, collaborate, and build momentum toward a more climate-resilient financial system. This report aims to transparently measure and disclose KFH Egypt greenhouse gas emissions. Through this assessment, KFH Egypt seeks to identify critical areas for improvement, enhance future reporting, and implement effective strategies to reduce its environmental impact. This initiative aligns with global and national sustainability goals, demonstrating KFH Egypt commitment to responsible environmental stewardship.

The specific objectives of the report include:



Measuring and publicly disclosing KFH Egypt GHG emissions.



Identifying significant sources of emissions within the bank's operations to pinpoint key areas for improvement.



Aligning the bank's sustainability strategy with global and national sustainability goals.



Demonstrating environmental leadership through proactive and responsible climate action.



Enhancing stakeholder engagement and building trust through transparent disclosure of environmental performance.



Driving continuous improvement by establishing robust reporting practices, enabling the tracking of emissions trends over time, and setting a baseline for future sustainability initiatives.

Scope of the Report

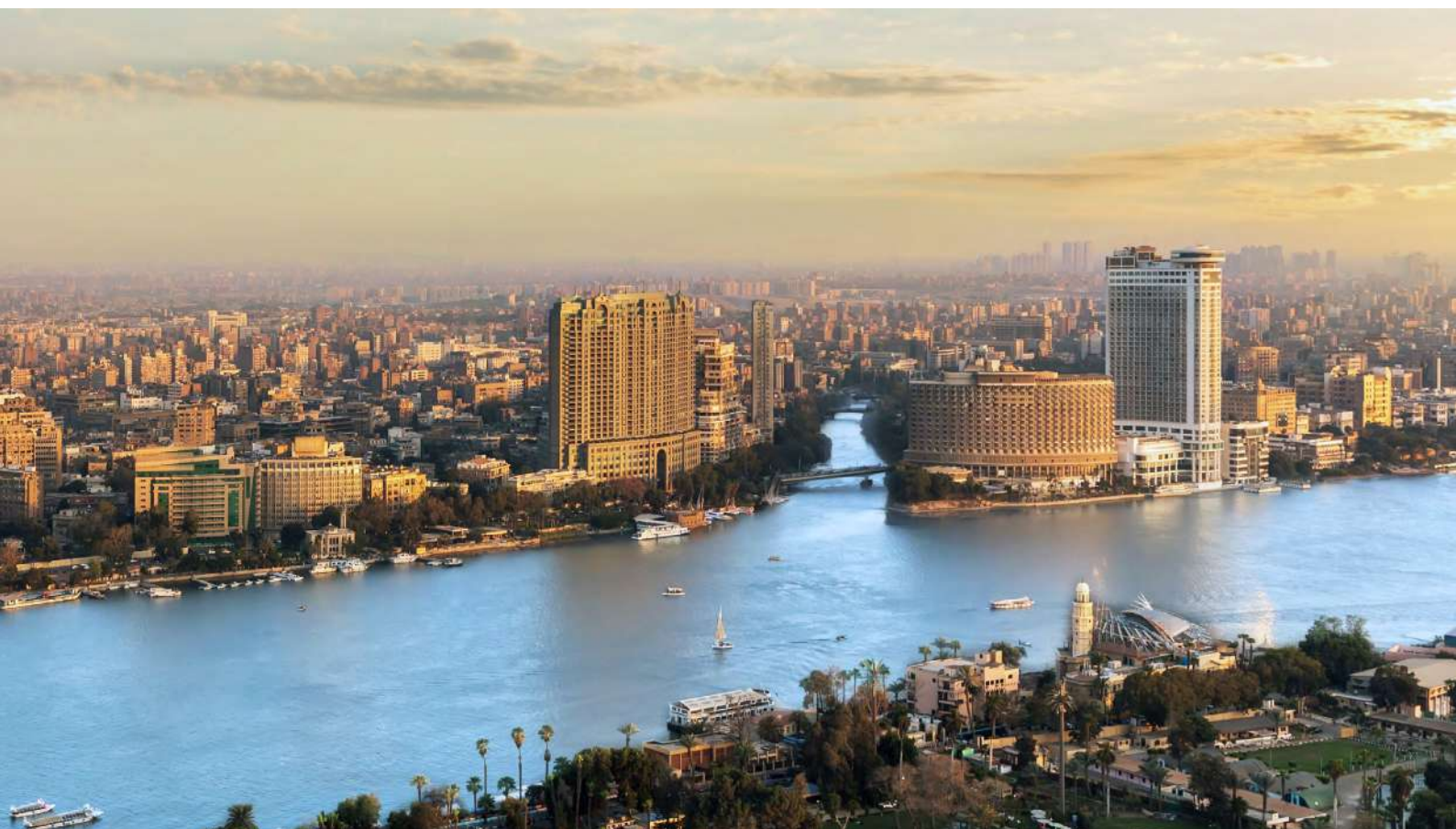
This GHG Inventory Report includes an assessment of KFH Egypt greenhouse gas emissions, covering all operations within Egypt and focusing specifically on:

- **Scope 1:** Direct emissions from KFH Egypt-owned or operated assets, such as emissions from fuel combustion and fugitive emissions (e.g., refrigerants).
- **Scope 2:** Indirect emissions from purchased electricity, heating, and cooling consumed by KFH Egypt operations.

Why GHG Reporting Matters for KFH Egypt

Accurate GHG reporting, represented as a carbon footprint, holds substantial significance for KFH Egypt, including:

- **Enhanced Environmental Performance:** By quantifying GHG emissions, the bank can identify and implement targeted strategies to reduce its environmental impact, reinforcing its commitment to sustainability.
- **Enhanced Stakeholder Trust and Credibility:** Transparent reporting fosters stronger relationships with stakeholders—customers, investors, regulators—by demonstrating accountability and environmental responsibility.
- **Improved Resilience to Climate Risks:** Understanding its carbon footprint allows KFH Egypt to manage physical and transition-related climate risks, ensuring long-term operational sustainability.
- **Better Decision-making for Green Financing:** Clear insights into its own environmental impact enable KFH Egypt to effectively channel capital toward sustainable projects, positioning itself as a leader in sustainable finance.



Regulatory Context (Central Bank of Egypt Guidelines)

The Central Bank of Egypt (CBE) has taken a proactive stance in promoting sustainable finance and responsible environmental stewardship across the banking sector. Through its guidance on climate risk management and environmental disclosures, the CBE encourages banks to incorporate environmental, social, and governance (ESG) considerations into their risk management frameworks, enhance transparency through sustainability reporting, and support the country's broader climate goals. KFH Egypt reporting efforts are aligned with these national directives and are intended to contribute to Egypt's Vision 2030 and commitments under international climate agreements.

Report Audience and Use Cases

- This report is intended for a wide range of stakeholders, including internal decision-makers, regulators, investors, employees, customers, and sustainability professionals. It serves several key purposes:
- Inform internal strategy development and operational improvements related to environmental performance.
- Support compliance with national regulatory requirements and alignment with international best practices.
- Enhance transparency and accountability with external stakeholders.
- Serve as a communication tool to engage clients and partners on the importance of climate action.
- Lay the foundation for future target setting, Scope 3 expansion, and climate risk integration into the bank's broader ESG strategy.

Alignment with Global Standards and National Strategies

- KFH Egypt GHG inventory calculations adhere to internationally recognized standards, ensuring consistency and comparability with other organizations:
- Greenhouse Gas Protocol: The most widely adopted international standard for GHG accounting in both government and business sectors.
- Intergovernmental Panel on Climate Change (IPCC) Guidelines: Internationally accepted methodologies for conducting greenhouse gas inventories.
- Adhering to these frameworks supports alignment with best practices and advances Egypt's Vision 2030, emphasizing sustainable development and environmental protection.

Organisational and Operational Boundaries

Definition of the Bank's Organisational Boundaries

In line with the GHG Protocol's guidance, KFH Egypt has adopted the **operational control approach** for defining its organisational boundaries. Under this approach, KFH Egypt accounts for 100% of the emissions from operations over which it has full authority to introduce and implement operating policies. This includes facilities and assets where KFH Egypt has the ability to direct financial and environmental performance, regardless of ownership structure.

Identification of Operational Boundaries (Scope 1, 2, and 3)

This report covers the following GHG emissions scopes:

- **Scope 1:** Direct GHG emissions from sources owned or controlled by KFH Egypt. These include emissions from fuel combustion (e.g., generators, company vehicles) and fugitive emissions (e.g., refrigerants from air conditioning systems).
- **Scope 2:** Indirect GHG emissions resulting from the generation of purchased electricity, heating, and cooling consumed by KFH Egypt facilities.
- **Scope 3:** Not included in this report. However, Scope 3 emissions are recognised as a material component of the bank's total footprint and are prioritised for future inclusion as data quality and internal systems improve.

Treatment of Subsidiaries, Branches, and Leased Assets

- KFH Egypt operational structure includes one head office and 43 branches and 3 storages and archiving facilities, geographically distributed across seven regions within Egypt. All operations within Egypt are covered under the inventory.
- Total building area under control is 36,269 m²
- Branches and offices where KFH Egypt has operational control are fully included in Scope 1 and Scope 2 emissions. For leased properties where operational control is not held—i.e., where KFH Egypt does not manage energy use or maintenance—these locations are excluded from the inventory, consistent with the GHG Protocol's Consolidation based on operational control approach.

KFH Egypt has a comprehensive operational structure across Egypt:**1 Head Office****43 Branches****3 Storage & Archiving Facilities****These facilities are strategically distributed across 7 regions within Egypt.****Inventory Coverage****All operations within Egypt are covered under the inventory.****Total building area under control is 36,269 m².****The bank doesn't have operational control over the following branches**

- City Stars Branch
- No subsidiaries currently fall within the boundary of this GHG inventory.

GHG Emissions Covered in the Report

This inventory includes emissions from the following categories:



Fuel combustion for backup generators and KFH Egypt owned vehicles (Scope 1).



Fugitive emissions from refrigerants used in air conditioning systems (Scope 1).



Chemical Process related emissions is not relevant to the KFH Egypt operations (Scope 1)



Electricity purchased for operations with operational control (Scope 2).



District Cooling/Heating purchased for operations with operational control (Scope 2)

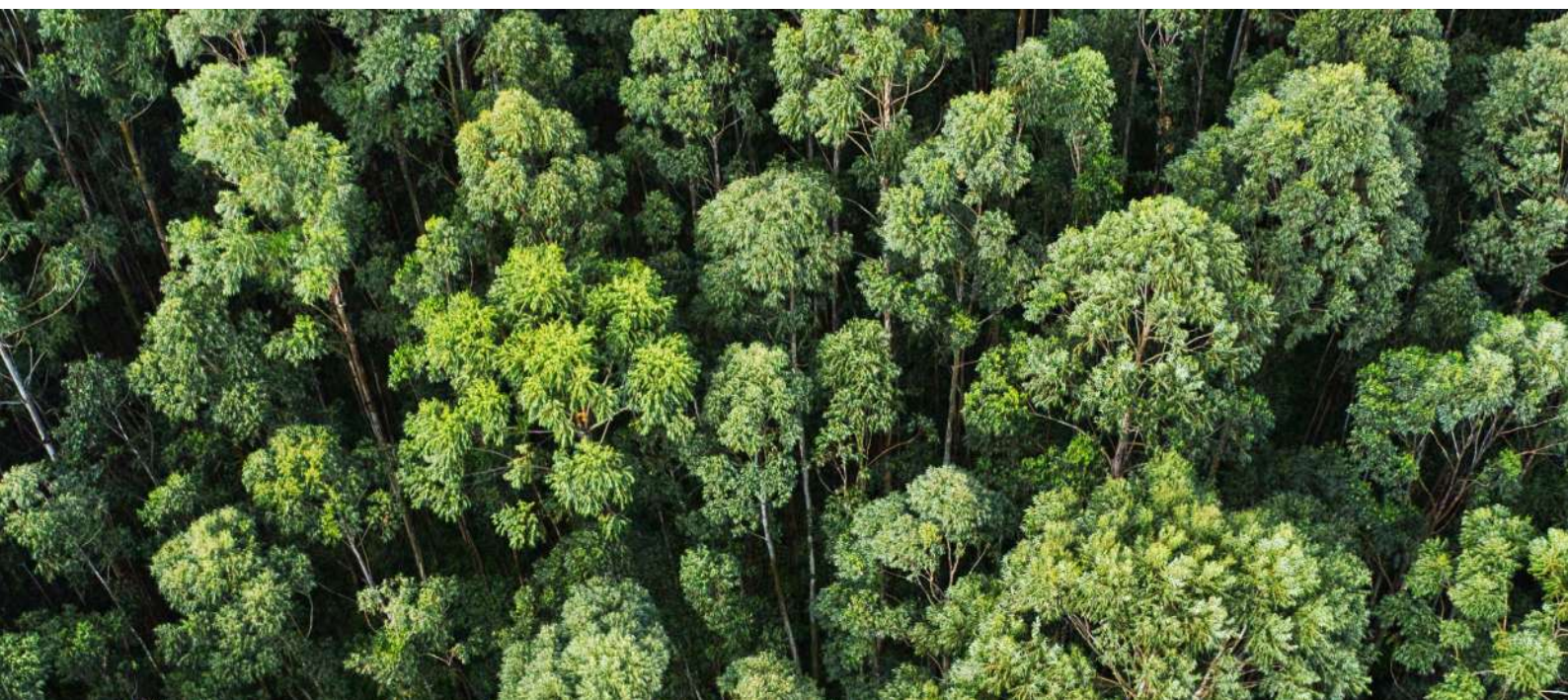


Scope 3 emissions such as business travel, employee commuting, use of sold products, and financed Emissions are currently not included in the inventory but are identified as priorities for future reporting.

Geographic Coverage



The boundary for this inventory is geographically limited to all KFH Egypt operations located within Egypt.



GHG Calculation Methodology

Description of Methodologies Used

KFH Egypt GHG inventory has been developed in accordance with the Greenhouse Gas Protocol's Corporate Accounting and Reporting Standard. This methodology categorizes emissions into three scopes (Scope 1, Scope 2, and Scope 3) and provides structured guidance on calculating emissions from various sources based on activity data and appropriate emission factors.

The operational control approach was used to define boundaries, and emissions were calculated by multiplying the activity data by relevant emission factors for each source category. Where available, institution-specific data was used; in other cases, internationally recognized defaults were applied.

Activity Data Collection Process

The GHG inventory relied on actual operational data collected from various departments across the bank:

- **Electricity Consumption:** Monthly utility bills were reviewed. Where only payment amounts were available, electricity consumption in kilowatt-hours (kWh) was estimated using the average commercial electricity tariff rate published by the Egyptian government.
- **Fuel Consumption:** Total expenditure on fuel was obtained from fuel invoices. These figures were divided by the prevailing fuel price to estimate total liters consumed.
- **Refrigerants:** Fugitive emissions were estimated based on refrigerant logs maintained by the maintenance department, which detailed quantities of each type of refrigerant added due to leaks or servicing.

Due to limited access to equipment-level specifications (e.g., generator efficiency or fuel conversion factors), assumptions based on typical usage patterns were applied where necessary.

Emission Factors Applied

Emission factors were selected based on accuracy, transparency, and alignment with recognized standards:

- For **electricity-related emissions (Scope 2)**, the emission factor published by **EgyptERA** was applied, offering a more localized and accurate representation of the Egyptian grid's emission intensity.
- For **fuel combustion and fugitive refrigerant emissions**, the latest **IPCC default emission factors** were used, in accordance with the 2006 IPCC Guidelines with the 2019 refinement for National Greenhouse Gas Inventories.

This approach ensures consistency with global practices while reflecting local grid characteristics where appropriate.

GHG Emission Sources Identified

The following emission sources were included in the GHG inventory:

- **Scope 1:**
 - Fuel combustion from generators and vehicles where KFH Egypt has operational control of
 - Fugitive emissions from refrigerant leakage in HVAC systems
- **Scope 2:**
 - Purchased electricity for buildings and operations where KFH Egypt has operational control
 - Purchased Central cooling and heating in malls and buildings with similar HVAC cooling infrastructure as for example: malls
- **Scope 3:** emissions—such as employee commuting, business travel, use of third-party logistics, and financed emissions—were not included in this report but are recognized as priorities for future development.

Calculation Tools/Software Used

Excel-based data collection and calculation templates were developed internally and distributed to the relevant departments. These templates were designed to standardize data entry and include built-in emission factors and formulas to calculate emissions per activity type. Departmental focal points were responsible for completing and validating data entries.

The results were consolidated and reviewed centrally by the sustainability team to ensure consistency and identify any outliers or data gaps.

Assumptions and Limitations

Several assumptions and limitations were identified during the reporting process:

- Where electricity consumption was not recorded in kilowatt-hours, it was estimated from billing amounts using average tariff rates.
- For fuel usage, exact volumes were back-calculated from expenditure data and average fuel prices.
- Generator specifications (e.g., efficiency or load factors) were not available, and default assumptions were used in line with GHG Protocol guidance.
- Minor data gaps or inconsistencies may exist due to varying data quality across branches. Which could be seen clearly in branches with prepaid electricity meters as a fixed amount was always paid regardless of the actual consumption of electricity to make sure no power cuts takes place
- Monthly Grid Emission factor published by Egypt ERA was official stopped on may 2023 leading to the use of the annual emission factor published by the EEHC in its annual report

These limitations will be addressed in future reporting cycles where possible as data collection and reporting systems are enhanced.

Baseline Year Selection and Rationale

At this stage, no formal baseline year has been designated. This report represents KFH Egypt first GHG inventory and will serve as a foundational exercise for future reporting cycles. The insights gained during this process will inform the development of a more robust reporting infrastructure and ultimately support the selection of a consistent and credible baseline year in subsequent reports.

Scope 1 Emissions

1. Description of Scope 1 Sources

Source Category	Activity	Fuel / Gas	Control Status	Comment
Stationary combustion	Backup electricity during grid outages	Diesel	Owned & operated	11 small-scale generators located across branches
Mobile combustion	Business travel & logistics	Gasoline (92 octane)	Owned fleet (54 passenger cars)	Vehicles < 10 years old, distributed nationwide
Fugitive emissions	HVAC servicing & maintenance	R-22, R-410A, R-134a	Owned & operated	Top-ups recorded in maintenance logs at 11 sites

No industrial or process emissions occur within KFH Egypt administrative operations.

2. Data Collection and Calculation Methodologies

Step	Approach	Key References
Activity data	- Diesel & gasoline: total annual spend from finance records → converted to litres using average 2023 government prices. - Generator catalogue & branch logs verify fuel type and use. - Refrigerants: quantities taken from maintenance re-charge logs.	Internal finance & facilities data; maintenance records
Emission factors	- Combustion: IPCC 2006 Guidelines (Tier 1) factors, adjusted with 2019 Refinement (density = 0.84 kg/L for diesel, 0.74 kg/L for Gasoline). - Refrigerants: IPCC AR6 100-year GWP values.	IPCC 2006 & 2019; AR6
Equation	Emissions = Activity Data × Emission Factor; GHG-specific emissions multiplied by GWP to obtain CO₂e .	GHG Protocol Corporate Standard
Validation	Three-layer review (responsible department → Sustainability Dept. → external consultant) to reconcile invoices, logbooks, and equipment lists.	KFH Egypt QA protocol

Assumptions and limitations (see Data Quality section): use of spend-based fuel conversion, estimated generator load factors, and unmetered refrigerant losses from company vehicles (to be captured in future inventories).

3. Scope 1 Emission Totals for CY 2023

Source	Activity Data	CO ₂ e (t)	% of Scope 1
Stationary combustion (diesel generators)	8,430 L diesel	22.60 t	3.9 %
Mobile combustion (vehicle fleet)	138,813 L gasoline	321.54 t	55.2 %
Fugitive refrigerants (HVAC)	41 kg R-22, 29 kg R-410A, 65 kg R-134a	238.73 t	40.9 %
Total Scope 1	—	582.88 t CO ₂ e	100 %

Key insights

- Mobile combustion is the dominant Scope 1 source, driven by fleet size and fuel type.
- Fugitive refrigerant losses, though small in mass, have a high climate impact (40.9% of total CO₂e) because of elevated GWPs.
- Diesel generator use is limited but will grow in importance if grid reliability issues persist.

4. Next Steps to Reduce Scope 1 Emissions

- Fleet optimisation – phase-in hybrid/EV vehicles and introduce eco-driving training.
- Generator management – explore branch-level solar plus battery backup to displace diesel runtime.
- Refrigerant stewardship – adopt lower-GWP refrigerants and strengthen leak-detection / recovery protocols.

These initiatives integrate with the broader Emissions Reduction Strategy and will inform quantitative targets in forthcoming reporting cycles.



Stationary combustion

The bank operates a fleet of small-scale backup generators that kicks in when there is power outage. A full description of these assets can be found in the Table 1.

Table 1 Add generator pics in the relevant cells

No.	Code	Branch	Branch Name	Equipment Description	Generator Type	Brand Name	Power	Diesel Consumption/liter
1	GN-006	10R-	10th Of Ramadan City	Generator 3 Cylinder			30KVA	0
2	GN-010	SHL-	Alexandria Shallalat	Generator 6 Cylinder	TA2810M5	VOLVO - LEROY-SOMER	200KVA	2000
3	GN-003	DOK-	Dokki	Generator 3 Cylinder		PERKINS - Stanly	30KVA	530
4	GN-001	HRM-	Haram	Generator 3 Cylinder	R250	PERKINS -	150KVA	1300
5	GN-005	HLP-	Heliopolis	Generator 3 Cylinder		Cummins - AUSUNIA	30KVA	300
6	GN-008	MNS-	Mansoura	Generator 3 Cylinder	CS80-5	Cummins	30KVA	800
7	GN-007	PSG-	Port Said El Gom-horya	Generator 3 Cylinder		PERKINS -	30KVA	200
8	GN-004	SLH-	Salah Salem	Generator 3 Cylinder		PERKINS -	30KVA	0
9	GN-002	SHC-	Shooting Club	Generator 4 Cylinder	PT100		60KVA	800
10	GN-009	TNT-	Tanta	Generator 6 Cylinder	LSA44L5	VOLVO -	175KVA	500
11	GN-009	NEW	New Cairo	Generator 6 Cylinder	PT1000		1000 KVA	2000

To calculate the Emissions from these generators we will follow the tier 1 approach use the following equation

GHG Emissions, fuel = Fuel Consumption x Emission Factor (Fuel, GHG)

Where:

GHG Emissions, fuel = Emissions of a given GHG by type of fuel (kg GHG)

Fuel Consumption = Amount of fuel combusted (TJ)

Emission Factor (Fuel, GHG) = Default emission factor of a given GHG by type of fuel (kg gas/TJ).

- For CO₂, it includes the carbon oxidation factor, assumed to be 1.

Since all the KFH Egypt generators use diesel as a fuel the following will apply.

The default IPCC Tier 1 emission factors per litre of diesel fuel (assuming density of 0.84 kg/litre) are as follows, based on the 2006 IPCC Guidelines and 2019 Refinement:

- **CO₂: 2.68 kg CO₂/litre**
- **CH₄: 0.005 g CH₄/litre**
- **N₂O: 0.005 g N₂O/litre**

KFH Egypt has used a total of 8,430 liter of diesel in the reporting period this will result in the following GHG emissions

- **CO₂: 22,592.4 kg**
- **CH₄: 0.04215 kg**
- **N₂O: 0.04215 kg**

Applying the GWP

Greenhouse Gas	GWP (AR6, 100-yr)
CO ₂	1
CH ₄ (fossil)	29.8
N ₂ O	273

This will result in a total emissions of

$$\text{CO}_2 (22,592.4 \times 1) + \text{CH}_4 (0.04215 \times 29.8) + \text{N}_2\text{O} (0.04215 \times 273) = \mathbf{22.6 \text{ Tons CO}_2\text{e}}$$

Mobile combustion

KFH Egypt has a fleet of cars serving its operations across Egypt as shown in full details in annex 2. The fleet consists of 54 passenger cars that are varies between are less than 10 years old. All of them uses Gasoline 92 octane as fuel Over the reporting period the fleet has consumed a total of 138,813 liters of fuel

Emission Factors:

- CO₂ emission factor = 2.31 kg CO₂ per litre
- CH₄ emission factor = 0.03 g CH₄ per litre = 0.00003 kg CH₄ per litre
- N₂O emission factor = 0.02 g N₂O per litre = 0.00002 kg N₂O per litre

Activity Data:

- Total fuel consumption = 138,813 litres

Emissions per Gas:

- CO₂ = 138,813 × 2.31 = 320,661.03 kg CO₂
- CH₄ = 138,813 × 0.00003 = 4.16439 kg CH₄
- N₂O = 138,813 × 0.00002 = 2.77626 kg N₂O

Global Warming Potentials (AR6, 100-year):

- GWP for CH₄ = 29.8
- GWP for N₂O = 273
- GWP for CO₂ = 1

CO₂e Emissions:

- CH₄ CO₂e = $4.16439 \times 29.8 = 124.10$ kg CO₂e
- N₂O CO₂e = $2.77626 \times 273 = 758.94$ kg CO₂e
- CO₂ CO₂e = $320,661.03 \times 1 = 320,661.03$ kg CO₂e

Total CO₂e:

- Total CO₂e = $320,661.03 + 124.10 + 758.94 = 321,544.07$ kg CO₂e
- ≈ 321.54 tonnes CO₂e

Fugitive emissions

Over the reporting period the KFH Egypt had to do some maintenance work on the air conditioning systems in some of its branches, such works has resulted in the need to topping up the refrigerants according to the following data compiled from the maintenance logs shown in table 3

Table 3

Location	Item	Type	Quantity (Kg)
Alexandria	Refrigerant	R22	18.00
Shooting Club	Refrigerant	R410-A	17.00
Dokki	Refrigerant	R22	11.00
Zamalek	Refrigerant	R22	6.00
6th of October	Refrigerant	R22	5.00
Downtown	Refrigerant	R410-A	4.00
Haram	Refrigerant	R410-A	4.00
Laurent	Refrigerant	R410-A	2.00
Mohandessin	Refrigerant	R410-A	1.00
Heliopolis	Refrigerant	R22	1.00
Makram Ebeid	Refrigerant	R410-A	1.00
Head Office	Refrigerant	R134a	65.00

Refrigerants leakage from cars is not currently tracked but will added in the future

Global Warming Potentials (GWP) – IPCC AR6 (100-year):

- R22 = 1,960
- R410A = 2,256
- R134a = 1,430

Refrigerant Quantities:

- R22 total = 41.00 kg
- R410A total = 29.00 kg
- R134a total = 65.00 kg

Emissions Calculations:

- R22:

$$41.00 \text{ kg} \times 1,960 = 80,360 \text{ kg CO}_2\text{e}$$

- R410A:

$$29.00 \text{ kg} \times 2,256 = 65,424 \text{ kg CO}_2\text{e}$$

- R134a:

$$65.00 \text{ kg} \times 1,430 = 92,950 \text{ kg CO}_2\text{e}$$

Total Emissions:

$$80,360 + 65,424 + 92,950 = \mathbf{238,734 \text{ kg CO}_2\text{e}}$$

$$= \mathbf{238.73 \text{ tonnes CO}_2\text{e}}$$



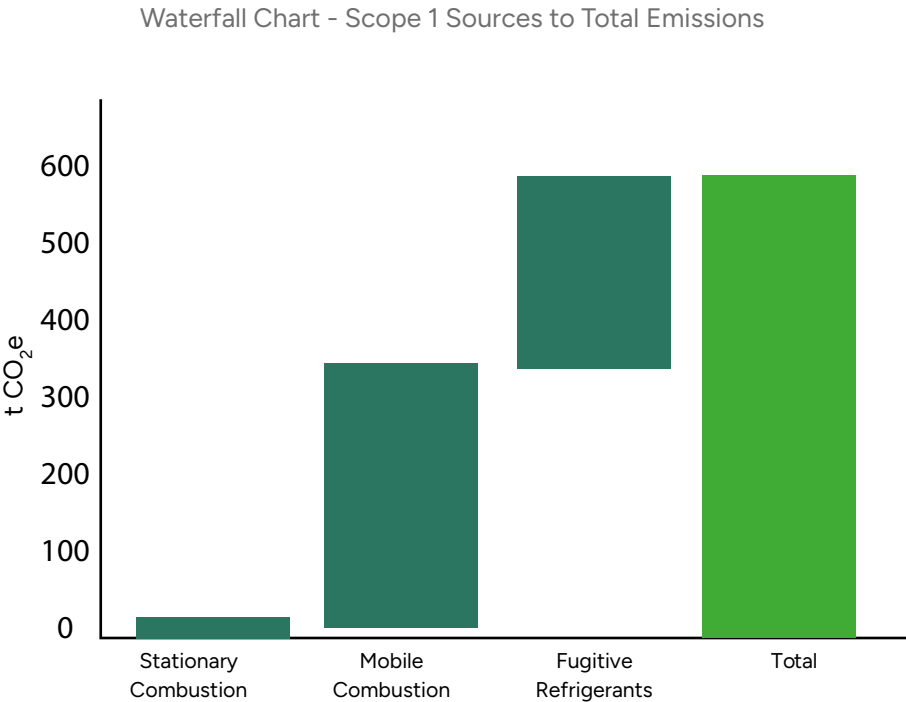
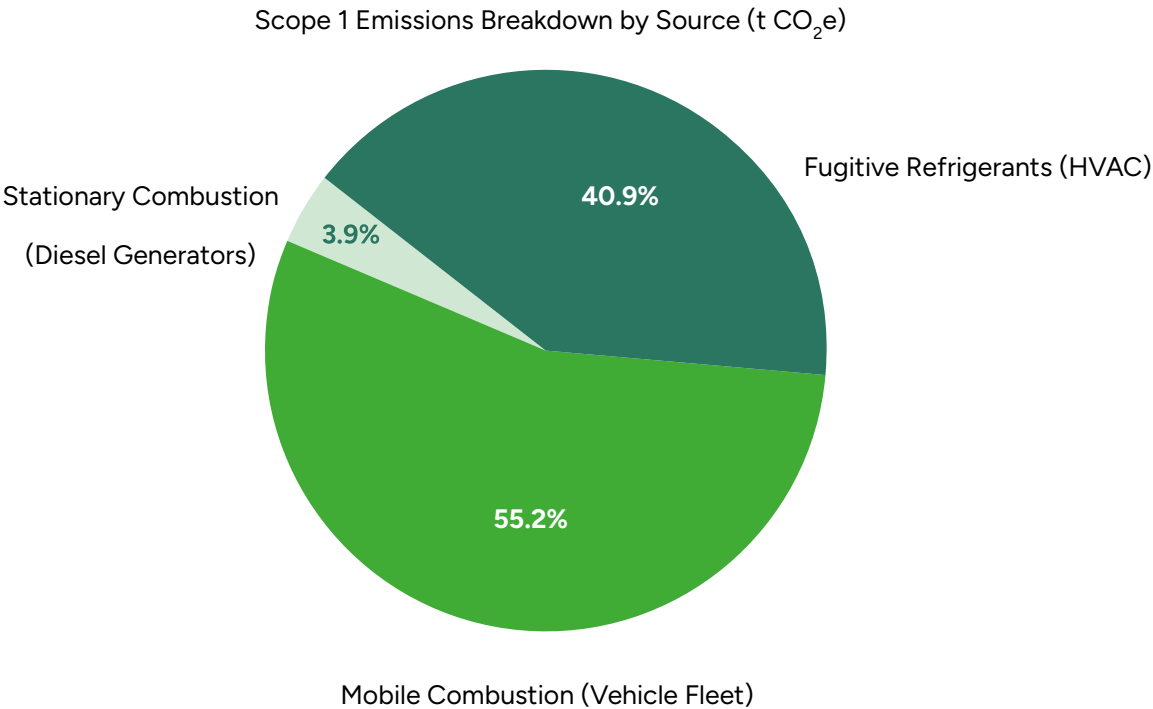
Scope 1 emissions summary

Source	GHG	Emissions (kg)	GWP (AR6)	CO ₂ e (kg)
Gasoline (138,813 L)	CO ₂	320,661.03	1	320,661.03
	CH ₄	4.16	29.8	124.10
	N ₂ O	2.78	273	758.94
Diesel (8,430 L)	CO ₂	22,592.40	1	22,592.40
	CH ₄	0.04215	29.8	1.26
	N ₂ O	0.04215	273	11.51
Refrigerants	R22	41.00	1,960	80,360.00
	R410A	29.00	2,256	65,424.00
	R134a	65.00	1,430	92,950.00

GHG	Quantity (kg)	CO ₂ e (kg)
CO ₂	343,253.43	343,253.43
CH ₄	4.21	125.36
N ₂ O	2.82	770.45
HFCs	—	238,734.00

Total Scope 1 emissions is 582.88 tonnes CO₂e

Figure 1
pie chart showing the breakdown of emissions according to source



Scope 2

For indirect emissions from purchased electricity

Location based approach will be used since KFH Egypt had no signed PPA in place during the 2023 reporting period, and also no renewable onsite energy production activity in its branches

For the organizational and operational boundaries

Only one branch (city stars mall branch), the bank has no operational control over the electricity consumption and is not charged for energy usage separately but has a monthly servicing fee that includes all amenities provided by the Mall (power, central cooling, etc..) and will not be part of scope 2 but will be reported under scope 3

Total Emissions in g CO₂e = Activity Data (kWh) x location based Emission Factor

Activity data to be used in the above formula are divided into 2 types

1. The bank currently only uses the national grid as a sole source of electric power
 2. Actual energy consumption reported on KWh basis from bills payed , approximated to the nearest KWh so we don't use un meaningful fractions
 3. For locations using prepaid meters, there are no KWh track record and only monthly top ups with equal amounts to make sure no power outage happens.
- a. Though the Egyptian electricity pricing framework is divided into tiers as published by EgyptERA, it would be impossible to transform the electricity bill amounts into KWh following the tier system due to the lack of the same activity data needed in a temporal setting in the first place
- b. Hence we will always assume the highest tier price as a proxy data to build consistent calculation methodology.
We will look into how to improve this in the future, for the year 2023 the highest tier was 1.83 EGP per KWh
4. Annex 2 has the full activity data for scope 2 , and our website will include a link for data room that could be accessed for 3rd party independent auditors if needed

For the Emission factor

1. For the reported year 2023, the Grid emissions factor that was published by EgyptERA until may 2023 only.
2. To ensure consistent reporting we will use the average emission Factor for the whole year published in the EEHC report 2022/2023 which is 376.7 g CO₂e/KWh

For the purchased heating and cooling

KFH Egypt didn't enter into any separate purchase agreements for heating or cooling during 2023 reporting period. Its branches in commercial malls gets access to the central HVAC operated by the malls management and is part if the rent payed per agreed contracts and will be reported separately under scope 3 in the future.

Scope 2 emissions total

For the reporting period of 2023 KFH Egypt had the following Electricity consumption across its branches

Branch	annual_kWh	Branch	annual_kWh
Archive 15may	1,076	10th of Ramadan	114,717
Archive El Haram	1,528	Domiatta	115,679
Zamalek	5,206	Suez	118,116
Shubra Storage	13,115	Hurghada	122,706
El-Rehab	15,388	Mansoura	128,947
El Sherouk	37,705	Merghany	129,784
Smouha	42,530	Tanta	133,471
Lasilky	60,915	Port-Said El Gomhoriya	134,622
New Zamalek	65,574	6th of October	141,772
New Nasr City	65,574	Minia	152,518
Makram Ebid	78,091	Sidi- Bishr	157,417
Manshia	80,431	El Haram	160,800
Sheraton	81,918	Maadi	172,251
Assiut	88,180	Mohandessin	175,276
Shoubra	88,368	Dokki	191,195
Madinty	96,390	Downtown	218,691
Obour	98,361	Shalalat	299,649
Water Way	98,361	Shooting Club	343,172
Sharm	98,361	Arkan	651,743
Guish	98,361	New Cairo	2,943,845
Heliopolis	104,475	Total	8,141,997
Loran	106,032		
Salah Salem	109,690		

KFH total Electricity consumption is

8,141,997 KWh = 8,142 MWh

Which will result in the following Emissions

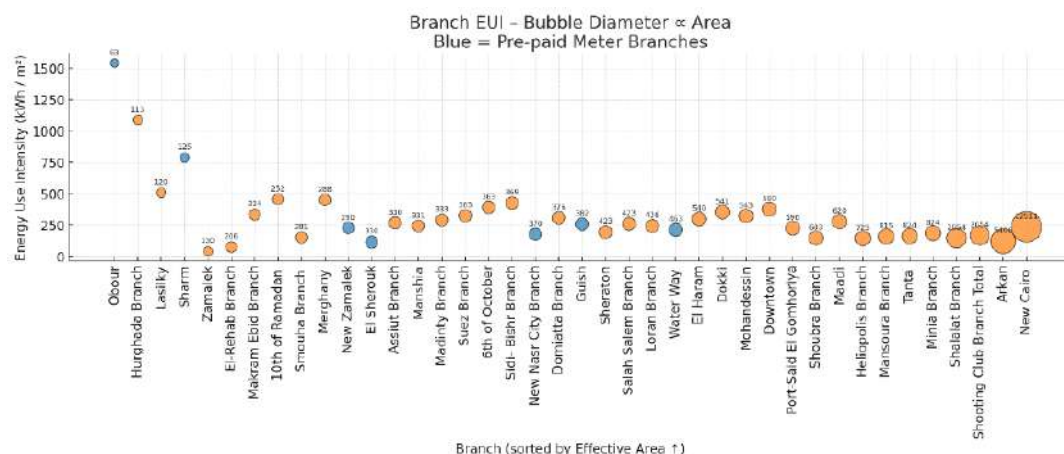
Total Emissions = Activity Data (KWh) x location based Emission Factor (gCO₂e/KWh)

8,141,997 KWh x 376.7 gCO₂e = 3,067,090,270 gCO₂e

Resulting in

3,067.09 Tons of CO₂e

Chart 3



Scope 2 analysis

Cleaning the data to analyze it

1. Storages and archives had no area data available
2. The branches with prepaid meters prevent us from any further analysis on their data
3. The following branches had the following monthly data flagged and by the Audit team and we are waiting for the banks reply (Flagged readings document)

Electricity intensity metrics

To be able to compare the electricity usage between different branches we have calculated the EUI (Electricity Usage Intensity) which is the total electricity consumed divided by the effective area to give a metric of kWh/m²

Insights from electricity usage

We have used the EUI as the base to mark data outliers on a monthly and yearly scopes by using the Median Absolute Deviation (MAD) as a statistical analysis methodology

Why MAD was used here

1. Robust to the very thing we are trying to spot

MAD uses the median and absolute deviations from it; both are unaffected by the extreme kWh/m² values that we suspect exist.

2. Small-sample friendly

You have ~40 observations. With $n < 50$, estimates of SD and even IQR become less stable; MAD remains dependable even for $n = 10$.

3. No normality assumption

Branch energy intensities are typically right-skewed (a few high-load sites, many regular ones). MAD doesn't rely on the bell curve.

4. Continuous integrity score

By scaling EUI–median 3MAD we turned a pass/fail rule into a 0–1 metric—handy for dashboards and weighting in composite KPIs.

5. Transparent to non-statisticians

Explaining “distance from the typical branch” $\pm$ a robust bandwidth is easier in operational meetings than, e.g., Mahalanobis distances or isolation-forest anomaly scores.

Branch	Effective Area	annual_kWh	EUI_kWh_m2	Integrity Score
Loran Branch	436.5	106,032	243	0.97
Manshia	331.2	80,431	243	0.97
Guish	382.5	98,361	257	0.97
Salah Salem Branch	423	109,690	259	0.96
New Cairo	12,511	2,943,845	235	0.94
Assiut Branch	330.3	88,180	267	0.93
Port-Said El Gomhoriya	596.7	134,622	226	0.91
New Zamalek	290	65,574	226	0.91
Maadi	620.19	172,251	278	0.89
Madinty Branch	333	96,390	289	0.85
Water Way	463.5	98,361	212	0.85
El Haram	540	160,800	298	0.81
Domiatta Branch	376.38	115,679	307	0.78
Sheraton	423	81,918	194	0.78
Minia Branch	824.985	152,518	185	0.75
Mohandessin	543.294	175,276	323	0.72
New Nasr City Branch	370.8	65,574	177	0.72
Suez Branch	363.33	118,116	325	0.71
Makram Ebid Branch	234	78,091	334	0.68
Shooting Club Branch Total	2,054.45	343,172	167	0.68
Tanta	824.481	133,471	162	0.66
Mansoura Branch	815.715	128,947	158	0.64
Smouha Branch	281.25	42,530	151	0.62
Dokki	541.17	191,195	353	0.6
Shalalat Branch	2,054.45	299,649	146	0.6
Shoubra Branch	603.36	88,368	146	0.6
Heliopolis Branch	725.22	104,475	144	0.59
Downtown	580.5	218,691	377	0.51
Arkan	5,408	651,743	121	0.5
El Sherouk	330	37,705	114	0.47
6th of October	363.6	141,772	390	0.46
El-Rehab Branch	206	15,388	75	0.32
Sidi- Bishr Branch	369	157,417	427	0.31
Merghany	288	129,784	451	0.22
10th of Ramadan	252	114,717	455	0.2
Zamalek	130	5,206	40	0.19
Hurghada Branch	113.004	122,706	1,086	0
Lasilky	120	60,915	508	0
Obour	63.9	98,361	1,539	0
Sharm	125	98,361	787	0

Issue	Branch	Annual kWh	Area m ²	EUI	Integrity
High-use outlier	Hurghada Branch	359,333	331	1,086	0.00
	Obour	228,872	149	1,539	0.00
	Sharm	268,575	342	787	0.00
Low-use outlier	Zamalek	10,875	271	40	0.19

Integrity metric – definition

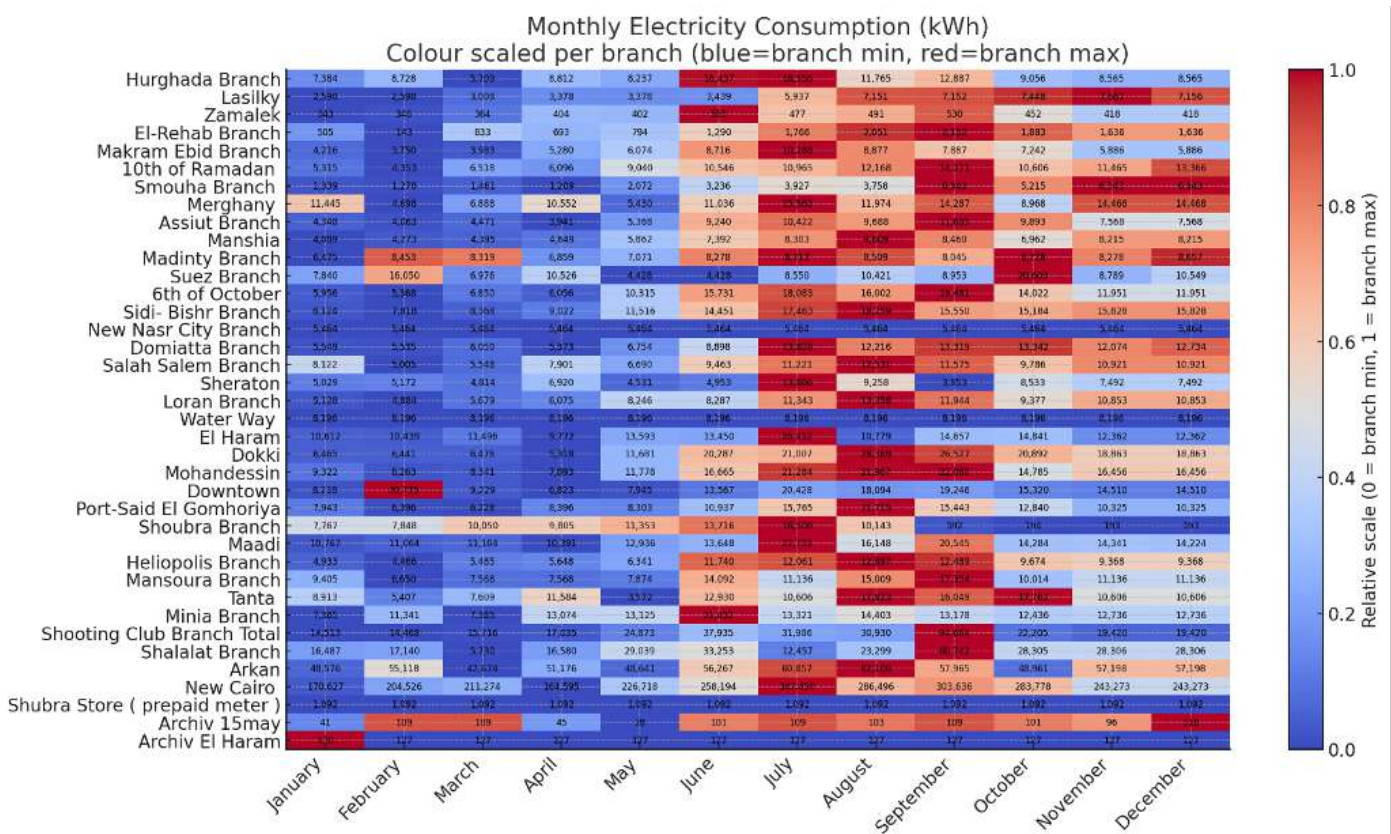
$$\text{Integrity Score}_i = \max\left(0, 1 - \frac{|\text{EUI}_i - \text{Median EUI}|}{3 \cdot \text{MAD}}\right)$$

- **EUI** = annual kWh ÷ branch area (kWh / m²)
- **Median EUI** across all branches with valid area = **250 kWh/m²**
- **MAD** (median absolute deviation) = **85.9 kWh/m²**

Score	Meaning
0.80 – 1.00	Usage sits comfortably in the middle of the fleet distribution – data look reliable.
0.30 – 0.79	Some deviation; worth a light check (e.g., occupancy schedules, HVAC settings).
0.00 – 0.29	Strong outlier; investigate metering, billing period alignment or area entry.



Chart 4



The heat-map on the previous page shows, for every branch (rows) and month of 2023 (columns), how that site's electricity use compares with its own historical range. Deep **red** squares mark each branch's highest month of the year, deep **blue** squares its lowest, and intermediate shades scale proportionally between those two points; blanks indicate missing invoices. Because the colour scale is recalibrated for every row, large and small sites are visualised on equal footing, letting you spot seasonal peaks, troughs, or data gaps branch-by-branch without the larger consumers overshadowing the small ones. The KWh figures printed inside each cell provide the exact values behind the colours.



Emissions Reduction Strategies

Overview of the Bank's Carbon Management and Reduction Strategy

KFH Egypt recognizes that addressing climate change requires not only understanding its greenhouse gas (GHG) footprint but also implementing meaningful strategies to reduce it. While the bank is still in the process of formalizing its carbon management strategy, efforts are already underway to reduce operational emissions through increased energy efficiency, clean energy adoption, and sustainable business practices.

Initially, the focus is on **enhancing operational efficiency**, a practical and impactful starting point as the bank builds the infrastructure needed for broader decarbonization efforts. In parallel, KFH Egypt is laying the groundwork to eventually expand its climate ambition to include **decarbonizing financial products and services**, which will require a strengthened reporting system and enhanced institutional capacity.

Planned Initiatives for Emission Reduction

KFH Egypt is currently developing a comprehensive roadmap that will guide the bank toward reducing its environmental impact across multiple operational dimensions. Planned initiatives include both short- and long-term actions:

Energy Efficiency and Renewable Energy

- Expand Renewable Energy Use
 - Increase the deployment of solar panels across branches.
 - Explore procuring Renewable Energy Certificates (RECs) to offset non-renewable electricity use.
- Optimize Energy Consumption
 - Implement Building Management Systems (BMS) for real-time energy monitoring.
 - Conduct regular energy audits to identify and correct inefficiencies.
 - Promote staff awareness campaigns on energy conservation practices.
- Upgrade Infrastructure and Equipment
 - Replace aging systems with energy-efficient lighting, HVAC, and IT equipment.

Sustainable Transportation

- Gradually transition the vehicle fleet to hybrid and electric vehicles.
- Explore installation of EV charging stations at strategic branches.
- Optimize logistics and delivery routes to reduce travel-related emissions.
- Encourage employees to adopt alternative transportation (carpooling, public transit, cycling).

Waste Management

- Implement branch-level recycling programs for paper, plastic, and electronic waste.
- Minimize the use of single-use plastics in daily operations.
- Promote paperless workflows through digital document systems and e-communications.

Employee Engagement and Culture

- Conduct internal training programs on environmental sustainability.
- Run campaigns and recognition programs to encourage sustainable behaviors across all levels of staff.

Continuous Improvement and Monitoring

- Conduct annual carbon footprint assessments to track progress.
- Analyze emissions data to refine reduction strategies.
- Regularly review and update the roadmap based on performance data and evolving best practices.
- Collaborate with suppliers and stakeholders to promote sustainability across the value chain.

Ongoing and Future Actions

- Current efforts include solar panel installation, LED lighting in 75% of branches, optimized HVAC systems, and flexible telecommuting policies.
- Planned for 2024: expanding electric/hybrid fleet vehicles and rolling out waste recycling programs at the branch level.

Reduction Targets and Timelines

KFH Egypt has not yet finalized quantitative emission reduction targets. However, the insights and learnings from this first GHG inventory will inform the development of evidence-based targets in future reporting cycles. The bank is committed to establishing measurable goals aligned with international best practices and national climate priorities.

Use of Offsets

At present, KFH Egypt does not rely on carbon offsets to address its emissions. The potential use of verified carbon offsets is currently under consideration and may be integrated into the bank's emissions reduction roadmap as part of a broader mitigation hierarchy.

Internal Carbon Pricing and Financial Incentives

KFH Egypt views internal carbon pricing as a key tool to drive responsible decision-making and low-carbon investment. The bank is currently exploring mechanisms for implementing an internal carbon price and other financial incentives that would support climate-aligned choices across departments. This effort is a high priority and is expected to shape future resource allocation and sustainability strategies.

Data Quality and Uncertainty Management

Explanation of Data Sources and Quality Assurance Measures

To ensure the reliability of this GHG inventory, KFH Egypt followed a multi-tiered data validation process. Activity data—such as electricity consumption, fuel usage, and refrigerant losses—were sourced from respective departments. These datasets were first reviewed through the bank's standard internal control systems, then validated by the Sustainability Department as a second layer of review. Finally, the data were reviewed by an external consultant as a third-party checkpoint, where any inconsistencies or gaps were investigated and resolved or flagged for future data and process improvement.

This multi-stage validation approach was designed to increase data confidence and reduce the risk of material errors.

Steps Taken to Minimize Errors in GHG Data Collection and Reporting

To enhance accuracy and consistency, the following practices were implemented:

- Use of standardized data request templates for uniformity across departments.
- Cross-verification of financial data (e.g., utility bills and fuel invoices) with average government prices to estimate physical activity (kWh, liters).
- Application of vetted and published emission factors.
- Clear documentation of assumptions, particularly in cases where direct measurement was not possible.

These steps provided a solid baseline for first-year reporting while enabling structured review and traceability.

Uncertainty and Limitations in the Inventory

Despite these measures, several limitations were identified during the data collection and calculation process:

- Electricity consumption data were divided in 2 tiers the first one used direct energy consumption in kWh and the second tier was derived from cost data rather than direct metering, requiring conversion using the average commercial electricity tariff.
- Grid emission factors were drawn from national sources, but inconsistencies exist among available data sets.
- Cars Fuel usage had allocation challenges, especially for shared fleet assets not clearly assigned to a specific branch.
- Generator specifications (e.g., fuel efficiency or rated capacity) were not consistently available, leading to potential over- or underestimation of combustion-related emissions.
- Refrigerant logs were available but not always standardized across all branches.
- Some leased branches fall outside KFH Egypt operational control and are therefore excluded per GHG Protocol rules.

These limitations are common in first-year inventories and are expected to be addressed progressively in future reporting cycles.

To provide transparency on the level of confidence associated with different data sources, the table below summarizes the **uncertainty classification by emission source**:

Emission Source	Scope	Data Source	Estimation Method	Uncertainty Level	Comments
Fuel Combustion (Generators, Vehicles)	Scope 1	Fuel invoices (total cost)	Estimated liters from fuel prices	Medium to High	Variability in fuel pricing and incomplete vehicle-level allocation
Electricity Consumption	Scope 2	Utility bills (converted from total cost)	Estimated kWh based on average commercial rates	Medium	kWh not directly metered; conversion introduces estimation variability
Refrigerant Leakage	Scope 1	Maintenance logs	Actual quantities reported	Low to Medium	Data available but may lack detailed tracking at all branches
Company-Owned Vehicles	Scope 1	Fleet records	Fuel usage from invoice approximation	Medium	Difficulty assigning fuel use to specific branches
Leased Branches (non-controlled operations)	Excluded	N/A	N/A	N/A	Excluded per operational control approach
Scope 3 Emissions	Excluded	N/A	N/A	N/A	Not covered in this inventory; prioritized for future inclusion

Uncertainty Classification Key:

- Low – High confidence in accuracy and completeness; directly measured or consistently reported data.
- Medium – Some estimation or data gaps; conservative assumptions applied.
- High – Significant reliance on proxies or assumptions; limited access to original data.

Approach to Managing Uncertainty

KFH Egypt has adopted a transparent and pragmatic approach to managing uncertainty by:

- Clearly documenting all estimation methodologies and assumptions.
- Flagging estimated or proxy data where actual data were not available.
- Clearly stating data quality issues in the relevant sections of the report (e.g., Scope 2 discussion on electricity calculations).
- Applying conservative assumptions to avoid underreporting emissions.
- Highlighting uncertainty levels by emission source.
- Regularly engaging with internal stakeholders to close data gaps and validate source quality.

This approach provides a credible foundation while allowing for iterative improvements in future reporting cycles.

Planned Improvements for Future Data Quality

To enhance data quality and reduce uncertainty in future inventories, KFH Egypt intends to:

- Automate data collection to minimize human error and standardize inputs.
- Establish a centralized database to store historical activity data for consistency and recalculations, particularly when a baseline year is established that can support recalculation of baseline years if needed.
- Utilize multiple emission factor sources (e.g., IPCC, national authorities, international energy agencies) to build resilience into the inventory methodology and ensure continuity in case of publication changes by source agencies.
- Digitize metering infrastructure and explore branch-level dashboards for energy use.
- Train relevant staff across departments on sustainability reporting basics to build internal capacity and ensure consistency across future reports.
- Develop internal data reporting guidelines to improve consistency and reduce variation across departments.

These planned improvements reflect KFH Egypt commitment to enhancing the robustness, transparency, and reliability of its GHG inventory over time.



Appendix 1

Glossary of Key Terms – 2023 GHG Inventory & Assurance

Term	Definition
Activity Data	Quantitative measure of a process that results in GHG emissions (e.g., litres of diesel, kWh of electricity).
Appendix	Supplementary section containing detailed data, calculations, or evidence not included in the main body of the report.
AR6 (IPCC Sixth Assessment Report)	The latest IPCC assessment cycle providing updated global warming potentials (GWPs) for converting gases to CO ₂ equivalent.
Assurance Engagement	Independent evaluation of non financial information, conducted here under ISAE 3000 (Revised) and ISO 14064 3.
Baseline	A reference year against which future emission reductions are measured; not yet established for KFH Egypt.
CO₂ equivalent (CO₂e)	A metric expressing the impact of different GHGs in terms of the amount of CO ₂ with the same global warming potential.
Disclaimer of Conclusion	Assurance opinion stating that no conclusion can be expressed due to pervasive scope limitations.
EEHC	Egyptian Electricity Holding Company – the state owned holding company overseeing generation, the Egyptian Electricity Transmission Company (EETC), and nine distribution companies across Egypt.
EgyptERA	Egyptian Electric Utility and Consumer Protection Regulatory Agency – the national electricity regulator; issues licences, sets tariffs, and publishes the monthly and annual grid emission factor used for Scope 2 calculations.
Emission Factor (EF)	Ratio that converts activity data into GHG emissions (e.g., t CO ₂ e per kWh).
Emphasis of Matter Paragraph	Auditor's clause drawing attention to a particular disclosure without modifying the overall conclusion.
GHG Protocol – Corporate Standard	Widely used framework for accounting and reporting organisational GHG emissions.
Grid Emission Factor	Average GHG intensity of electricity supplied by the national grid (0.377 t CO ₂ e/MWh for Egypt 2023).
Independent Limited Assurance	Moderate level of assurance that the statement is free from material mis statement, expressed as "nothing has come to our attention...".
ISAE 3000 (Revised)	International Standard on Assurance Engagements for non financial information.
ISO 14064 3 :2019	International standard specifying requirements for the verification and validation of GHG statements.

Term	Definition
Location Based Method	Scope 2 calculation approach using the average grid EF where electricity is consumed.
Materiality Threshold	Quantitative or qualitative boundary beyond which errors or omissions could influence stakeholder decisions (5 % of combined Scope 1 + 2 for this report).
Mobile Combustion	Fuel burned in company owned vehicles.
Operational Control	Boundary approach where an organisation accounts for 100 % of emissions from operations it controls.
Outlier	Data point that deviates markedly from others and may indicate error or exceptional circumstance.
Prepaid Meter	Electricity meter paid in advance, often lacking detailed monthly invoices; poses data collection challenges.
Qualified Conclusion	Assurance opinion modified because of a material, but not pervasive, mis statement or limitation.
Refrigerant Losses	Emissions from leakage of cooling gases in HVAC or refrigeration equipment.
Scope 1 Emissions	Direct GHG emissions from sources owned or controlled by the organisation (e.g., fuel combustion, refrigerant leakage).
Scope 2 Emissions	Indirect GHG emissions from the generation of purchased electricity consumed by the organisation.
Site Visit	On location inspection to verify data sources and controls.
Stationary Combustion	Fuel burned in fixed equipment such as boilers or generators.
Uncertainty	Degree of unknown deviation between a reported value and the true value.
Uncertainty Heat Map	Visual tool ranking data sources by uncertainty magnitude and confidence level.

Appendix 2

Activity Data

1. Electricity
2. Mobile combustion
3. Stationary Combustion
4. Refrigerant leaks



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