Financed Emissions

2023 Report

بنك الإمارات دبي الوطني
Emirates NBD

About **This Report**

This report presents **Emirates NBD – Egypt's inaugural** assessment of financed emissions for **2023,** focusing on **large corporate loans** within carbon-intensive sectors. Following the methodologies established by the **Partnership for Carbon Accounting Financials (PCAF) and the GHG Protocol** developed by the World Resources Institute (WRI), this analysis adheres to the fundamental principles of **relevance, completeness, consistency, transparency, and accuracy.**

Contents

Abbreviations

BAU	Business As Usual
BY	Base Year
CFP	Carbon Footprint
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
COP27	The 27th Conference of the Parties
EF	Emission Factor
EGP	Egyptian Pound
GHG	Greenhouse Gases
$GtCO_2e$	Giga Ton Carbon Dioxide Equivalent
GWP	Global Warming Potential
IEA	International Energy Agency
IPCC	Intergovernmental Panel on Climate Change
KPI	Key Performance Indicator
LED	Light-emitting diode
MSMEs	Micro, Small, and Medium-sized Enterprises
$mtCO_2e$	Metric Tons Carbon Dioxide Equivalent
NBD	National Bank of Dubai
NDCs	Nationally Determined Contributions
NZE	Net Zero Emissions
PCAF	Partnership for Carbon Accounting Financials
t	Tons
TCFD	Task Force on Climate-Related Financial Initiative
WBCSD	World Business Council for Sustainable Development
WRI	World Resources Institute
$M	Million US Dollars

01

Executive **Summary**

Executive **Summary**

The climate impact of financial institutions extends far beyond their direct operations. While a bank's office energy consumption and business travel contribute minimally to its overall emissions profile, its most significant climate footprint stems from **financed emissions**—the greenhouse gas (GHG) emissions linked to its lending and investment activities. Through capital allocation decisions, banks play a pivotal role in shaping global emissions trajectories, either enabling or mitigating carbon-intensive economic activities.

As climate change emerges as a defining challenge for global financial stability, Emirates NBD - Egypt recognizes the urgency of addressing its climate impact. This **Financed Emissions Report** marks a critical milestone in our sustainability journey, delivering our first comprehensive assessment of GHG emissions associated with our **lending portfolio.** This assessment covers the period from January 1, 2023, to December 31, 2023, based on financial data as of December 31, 2023.

This report focuses on the Bank's **large corporate loans** portfolio, which accounts for **73%** of the total lending portfolio. It offers a transparent disclosure of emissions data, aligned with the Partnership for Carbon Accounting Financials (PCAF) and the Global GHG Accounting and Reporting Standard for the Financial Industry.

Within the large corporate lending portfolio, the Bank's exposure to carbon-intensive sectors is **21%,** covering five key industries: **Oil & Gas, Power Generation, Iron & Steel, Aluminum, and Real Estate.** These sectors collectively represent nearly 100% of the Bank's exposure to carbon-intensive sectors within this portfolio. Loans in these sectors fall under the **Business Loans** and **Project Finance** asset classes.

As this marks Emirates NBD - Egypt's first financed emissions report, 2023 serves as the baseline year for future emissions assessments related to these sectors.

The Bank conducted emissions calculations for all clients across the five sectors mentioned above, covering Scope 1, 2, and 3 emissions to ensure a comprehensive evaluation of financed emissions.

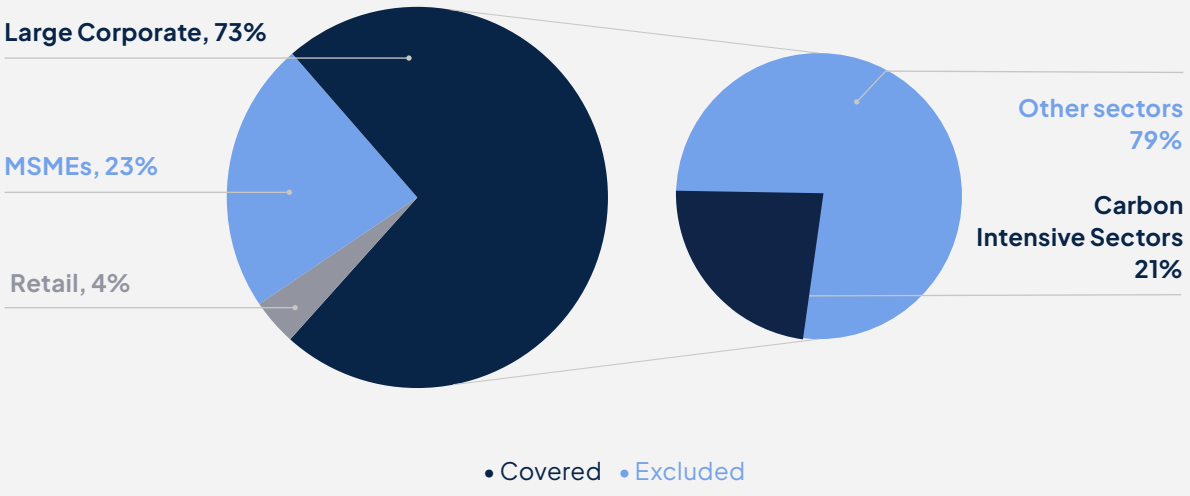
The total absolute financed emissions from this assessment amounted to **8,834,026 mtCO2e,** with the **Oil & Gas and Power Generation** sectors contributing over **98%** of the total emissions. This dominance is expected given the nature of these two sectors and their very high emissions profile.

To effectively manage and reduce financed emissions, Emirates NBD - Egypt has outlined key preliminary decarbonization measures, starting with stakeholder engagement and supporting clients in measuring, reporting, and mitigating their greenhouse gas emissions.

PCAF Partnership for Carbon Accounting Financials

GREENHOUSE GAS PROTOCOL

2023 Assessment Coverage



Total financed emissions 2023

8,834,026 $mtCO_2e$

Oil & Gas Sector

Scope 1 + 2 Intensity

239,840 $mtCO_2e$/$M lent

Power Generation

Scope 1 + 2 Intensity

6,658 $mtCO_2e$/$M lent

Iron & Steel Sector

Scope 1 + 2 Intensity

382 $mtCO_2e$/$M lent

Aluminium Sector

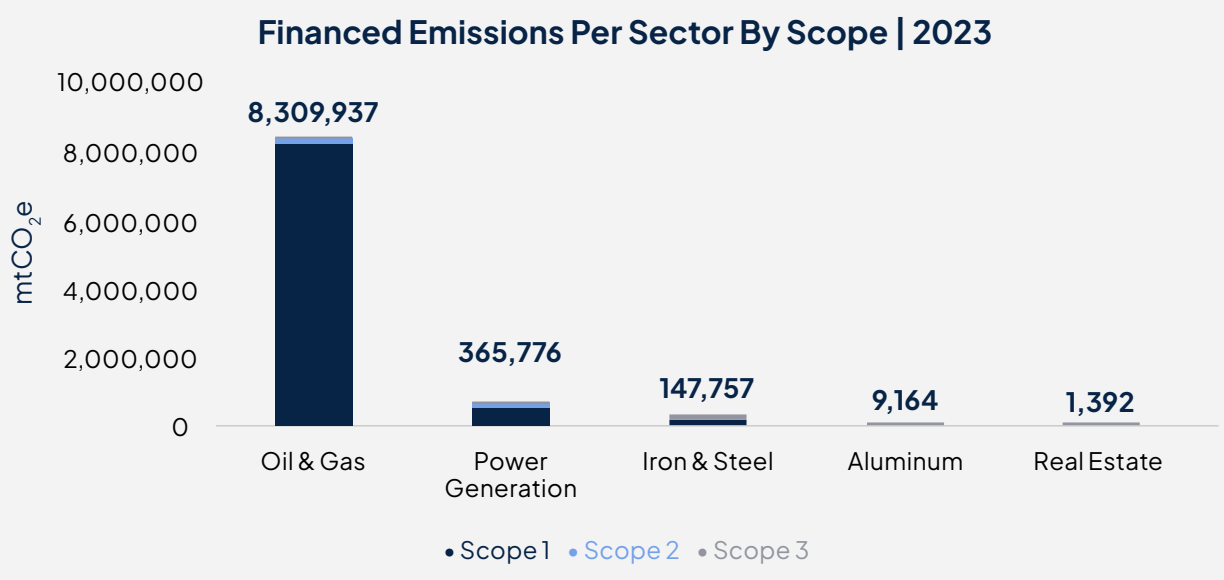
Scope 1 + 2 Intensity

47 $mtCO_2e$/$M lent

Real Estate Sector

Scope 1 + 2 Intensity

4.33 $mtCO_2e$/$M lent



02

Introduction

Introduction

As the impacts of climate change and environmental degradation continue to accelerate, it is more critical than ever to take collective action by embedding sustainability into every aspect of the real economy. Financial institutions have a unique and powerful role to play in this transition by directing capital flows toward sustainable outcomes. To enable this shift, it is essential to create the right conditions—through both market mechanisms and supportive policy frameworks—that allow the real economy to evolve toward a low-carbon future.

Given that financed emissions represent the largest share of banks' carbon footprints, their reduction is a key priority. Pursuing rapid divestment from high-emitting assets or cutting off relationships with carbon-intensive clients is unlikely to deliver the systemic decarbonization needed on a global scale. Instead, a more comprehensive and forward-looking approach is needed—one that not only incentivizes the gradual reduction of financed emissions but also promotes the active financing of emissions reduction efforts. This includes investing in the development and deployment of net-zero technologies and infrastructure, which are critical to achieving a sustainable, low-carbon future.

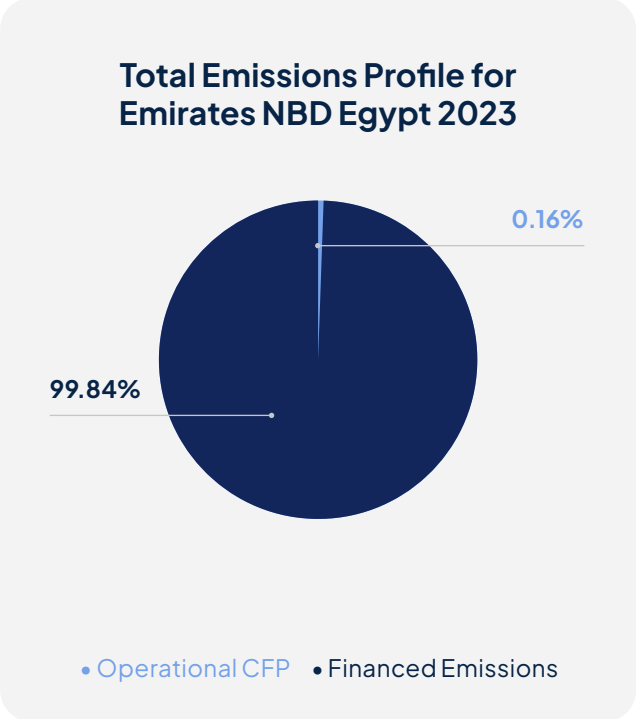
Egypt has demonstrated strong climate leadership, hosting COP27 and committing to ambitious Nationally Determined Contributions (NDCs) that include reducing greenhouse gas emissions across key sectors. The country's Climate Change Strategy 2050 and Sustainable Development Strategy (Vision 2030) emphasize the need for private sector engagement, particularly in financing green projects and promoting climate-resilient infrastructure. As an emerging Bank operating in Egypt, Emirates NBD - Egypt recognizes its responsibility to support these national efforts by integrating climate considerations into its core operations and lending practices.

This financed emissions report provides a comprehensive evaluation of Emirates NBD - Egypt climate impact through its lending activities. The assessment focuses on the bank's large corporate portfolio, covering key carbon intensive sectors which are Oil & Gas, Power Generation, Iron & Steel, Aluminum, and Real Estate.

This assessment establishes a baseline for ongoing monitoring and target-setting, enabling Emirates NBD - Egypt to track progress, manage climate risks, and identify opportunities to support clients' transition to sustainable practices.

Beyond Operations: The Bigger Picture of Financed Emissions

Based on Emirates NBD Egypt's 2023 results, financed emissions are approximately 620 times higher than the operational CFP. This highlights the critical importance of managing financed emissions in the banking sector.



03

Methodology & Approach

Guidelines & Framework

Financed emissions are calculated according to the guidance provided by the Partnership for **Carbon Accounting Financials (PCAF),** which outlines how financial institutions should account for their Scope 3 emissions from category 15: investments. The Global GHG Accounting and Reporting Standard Part A for Financed Emissions presents the industry's foremost framework for calculating and reporting these emissions to investors.

Developed by the PCAF, the Standard aligns with the GHG Protocol's requirements for the Corporate Value Chain (Scope 3) Accounting and Reporting Standard, as set forth by the World Resources Institute and the World Business Council for Sustainable Development. It specifies preferred methods for calculating the financed greenhouse gas emissions generated by an entity, as well as for tracking and reporting these emissions over time.

PCAF's guidance is dynamic, which means it may influence our methodology, assumptions, and calculation results as it evolves. The PCAF Standard encourages financial institutions to start reporting their emissions, even in the face of data limitations, recognizing that ideal reporting methods may not always be achievable, and estimated or proxy data may need to be utilized.

This assessment is guided by various frameworks, including but not limited to:

- **PCAF (2022). The Global GHG Accounting and Reporting Standard Part A: Financed Emissions. Second Edition.**
- **Greenhouse Gas Protocol Guidelines.**
- **2006 Intergovernmental Panel on Climate Change** (IPCC) Guidelines for Greenhouse Gas Inventories (with 2019 Refinements).

Calculation Approach

In adherence to the PCAF methodology and following the WBCSD/WRI GHG Protocol, the financed emissions assessment has incorporated all seven Kyoto Protocol greenhouse gases, whenever relevant and significant.

Global warming potentials (GWPs) serve as coefficients that quantify the radiative forcing impact of a specific greenhouse gas, such as methane, in comparison to an equivalent amount of carbon dioxide. These GWPs are employed in GHG accounting to standardize greenhouse gas emissions, expressing them in a common unit for easy comparison, known as carbon dioxide equivalent (CO_2e).

In the course of this inventory, **Emirates NBD – Egypt** has applied 100-year GWPs to all emissions data to calculate the total emissions in metric tons of carbon dioxide equivalent ($mtCO_2e$).

The emissions calculation approach is based on multiplying the attribution factor by the client's total emissions for the reporting year. The attribution factor determines the portion of emissions that the financial institution is responsible for, based on the loan amount provided to the client. As for the client's emissions, there are various methods for estimating it, including:

1. **Reported Emissions**
   Uses emissions data directly reported by companies (e.g., carbon footprint reports) or verified third-party sources.
2. **Physical Activity-Based Emissions**
   Estimates emissions using physical activity data (e.g., energy consumption, production levels) and applies verified emission factors.
3. **Economic Activity-Based Emissions**
   Estimates emissions using financial data (e.g., revenue, sectoral assets) and applies statistical or input-output models for emission factors.

Attribution Factor × **Client/Project Emissions** ($mtCO_2e$)

= **Financed Emissions** ($mtCO_2e$)

General Approach

The assessment methodology follows four key steps. First, a comprehensive analysis of the Bank's total lending portfolio is conducted to define the scope of the assessment, including the lending divisions and the carbon-intensive sectors covered.

After this analysis, data collection is carried out using multiple sources. A detailed profile of borrowers, including industry classification, operational activities, and the Bank's exposure, is obtained from Emirates NBD Egypt's internal records. Clients' financial data, such as key items from the balance sheet and income statement, is retrieved from the Bank's internal credit rating system. Emission factors are sourced from the PCAF database.

Next, data collection is carried out using Emirates NBD - Egypt internal records, while emission factors are sourced from the PCAF data base.

All financial data are then converted from Egyptian Pounds (EGP) to US Dollars (USD) using the average exchange rates for the year 2023 and calculations are carried out accordingly.

Following the calculations, a detailed analysis is performed, including the presentation of results and the assignment of data quality scores in accordance with the PCAF Standard.

The Bank's outstanding exposure is measured in line with PCAF standard recommendations, considering on-balance loans as of year-end 2023, while off-balance loans are excluded from the assessment.

1 Portfolio Analysis

2 Data Collection

3 Calculations

4 Analysis & Verification

Reporting Period & Base Year (BY)

This assessment covers the period from the **1st of January 2023** till the **31st of December 2023.** Since this is Emirates NBD - Egypt first financed emissions report, **2023** is considered the **base year** and reference for all financed emissions results of upcoming years for **the five covered sectors:** Oil & Gas, Power Generation, Iron & steel, Aluminum and Construction & Real estate sectors.

Assessment Boundaries

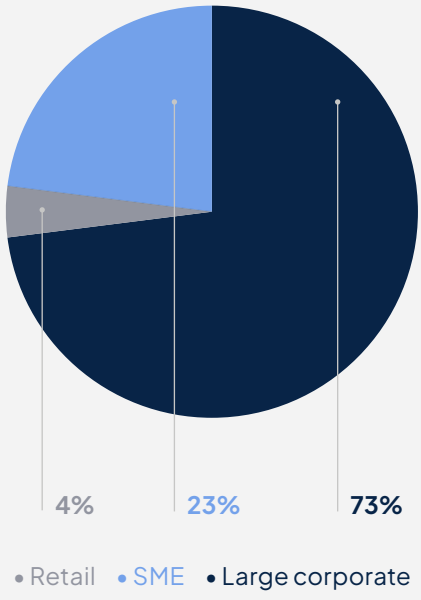
The bank's portfolio analysis identified the Large Corporate Division as the most substantial component of the lending portfolio, representing 73% of total exposure, with the remaining 27% allocated to Retail and SME divisions. Given this concentration, further investigation focused on the Large Corporate segment.

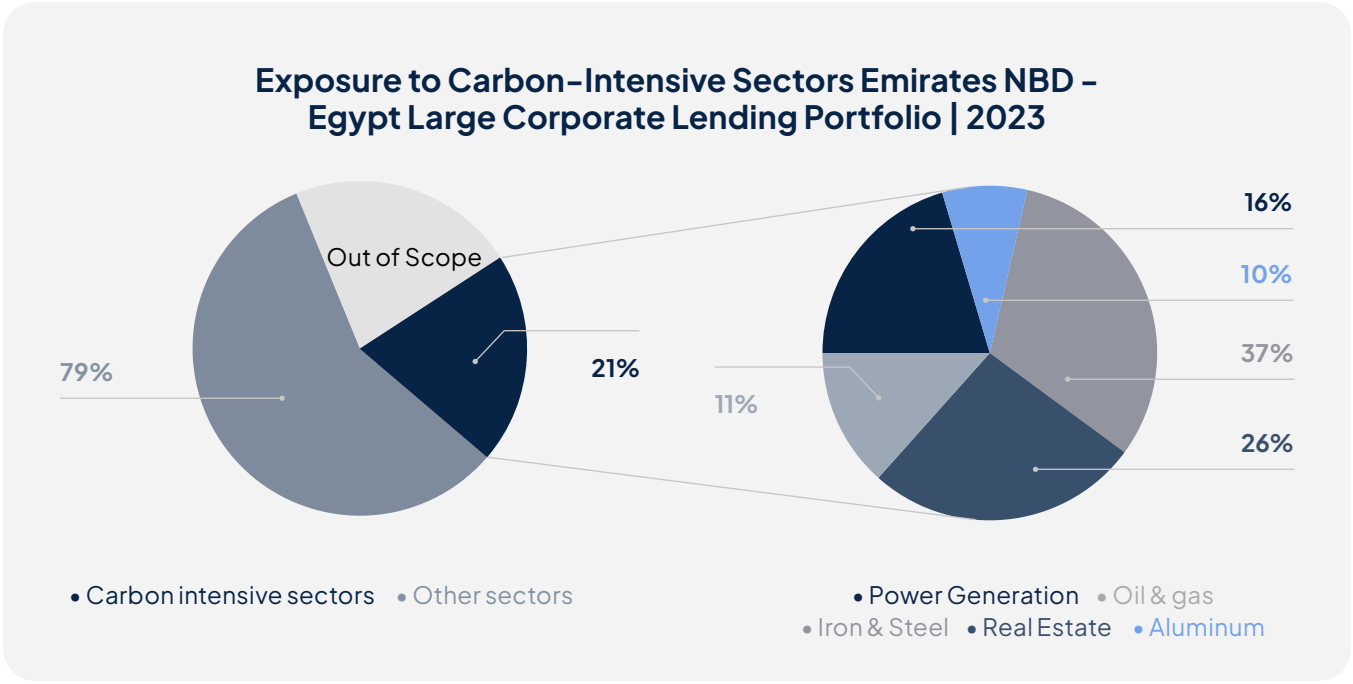
Within the large corporate loans portfolio, clients were assessed based on their involvement in **carbon-intensive** sectors to evaluate the bank's exposure in this area, which has been determined to be **21%** of the total large corporate loans portfolio. This assessment covers five key sectors—Oil & Gas, Power Generation, Iron & Steel, Aluminum, and Real Estate—which collectively represent nearly 100% of the bank's exposure to carbon-intensive industries.

The disclosed emissions from this assessment are linked outstanding loans of **$298.7 million** within the bank's large corporate lending portfolio, encompassing two of the Standard's asset classes: **business loans** and **project finance** loans. Due to data limitations, Emirates NBD - Egypt has adopted the **Economic Activity-Based** methodology for both asset classes in this initial financed emissions assessment.

The calculations are based on outstanding loans as of December 2023 and account for Scope 1, 2, and 3 financed emissions. These emissions include the seven greenhouse gases defined by the Kyoto Protocol, expressed in $mtCO_2e$.

Emirates NBD – Egypt Lending Portfolio per Division | 2023





Outline for Assessment Boundaries Selection Process

To define the boundaries for the current assessment, a specific selection criterion has been applied, as illustrated in the diagram below.

Emirates NBD – Egypt Portfolio Analysis to decide the focus of the assessment

Exposure from total portfolio

Priority is given to the lending division with the largest percentage share within the Bank's total lending portfolio

Carbon intensive sectors

Priority is given to the carbon-intensive sectors with the highest exposure

Large Corporate lending

- Oil & gas
- Power Generation
- Iron & Steel
- Aluminium
- Real Estate

Data Challenges & Limitations

The availability and reliability of data remain major challenges in reporting financed emissions. As emphasized by PCAF, current estimation methodologies often depend on low-quality data, which may not accurately represent borrowers' actual emissions. Access to high-quality data—particularly direct emissions data from borrowers—is limited, especially in Egypt, where most companies are not yet required to measure or disclose their emissions.

Due to constraints in data availability, quality, and accuracy, as well as the limitations of the chosen methodology, achieving precision in financed emissions reporting is challenging. Despite this, Emirates NBD - Egypt has disclosed its financed emissions using the best available data to date.

At present, the Bank does not incorporate client-reported emissions in its calculations, as many clients have yet to disclose this information, and those that do often lack standardized reporting practices. As more clients begin to report emissions consistently and in a verifiable manner, the Bank will integrate this data into its assessments. Verified client-reported data is expected to provide the most accurate foundation for evaluating financed emissions.

04

Oil & Gas Sector

Oil & Gas **Sector**

Sector Insights and Trends[1]

The oil and gas sector is vital to the global economy but is also a major contributor to greenhouse gas (GHG) emissions, accounting for nearly 15% of global energy-related emissions in 2022. Half of these emissions come from flaring and methane leaks, while 40% result from the combustion of oil and gas products.

Emissions Sources

Emissions in the oil and gas sector arise from various stages of the supply chain, including energy-intensive extraction, refining, and processing activities, as well as the transportation of crude oil, refined products, and natural gas over long distances.

Decarbonization Levers

Oil and gas companies can reduce emissions through two key strategies:

1. **Energy Efficiency (Scope 1 & 2 Emissions)**

- Cutting methane leaks and eliminating routine gas flaring.
- Optimizing energy use in extraction, refining, and logistics.

2. **Diversification (Scope 3 Emissions)**

- Expanding into **low-carbon energy solutions**, including biofuels, biogas, and clean hydrogen.
- Investing in **renewable power** (wind, solar) and distributed energy to align with electrification trends.
- Advancing **carbon capture technologie**s, leveraging industry expertise and capital.

Scope & Boundaries

As of December 31, 2023, Emirates NBD – Egypt's exposure to the oil and gas sector **$34.3 million**. This sector accounts for **11.5%** of the bank's outstanding loans to carbon-intensive industries within its large corporate lending portfolio. All clients are classified under the business loans asset class, and the calculations encompass Scope 1, 2, and 3 emissions.

Results

The emissions of these clients were estimated based on their economic activities and attributed to the Bank's exposure. This assessment resulted in financed emissions of **8,309,937 mtCO_2e**, encompassing Scope 1, 2, and 3 emissions. Scope 1 emissions constituted approximately **97%** of the total oil & gas sector emissions, primarily driven by energy consumption, flaring and methane leaks during the extraction process.

National Context[2]

Egypt's decarbonization strategy focuses on flaring reduction, energy efficiency improvements, natural gas expansion, and the exploration of CCUS and hydrogen production. Egypt is working to balance their reliance on hydrocarbons with a transition to cleaner energy solutions, reflecting a shared commitment to sustainable development and climate action.

[1] Information in this section are retrieved from: IEA, Emissions from Oil and Gas Operations in Net Zero Transitions.

[2] Information in this section are retrieved from: Egypt's Second Updated Nationally Determined Contributions.

Scope 1 **8,066,076** $mtCO_2e$

Scope 2 **171,463** $mtCO_2e$

Scope 3 **72,398** $mtCO_2e$

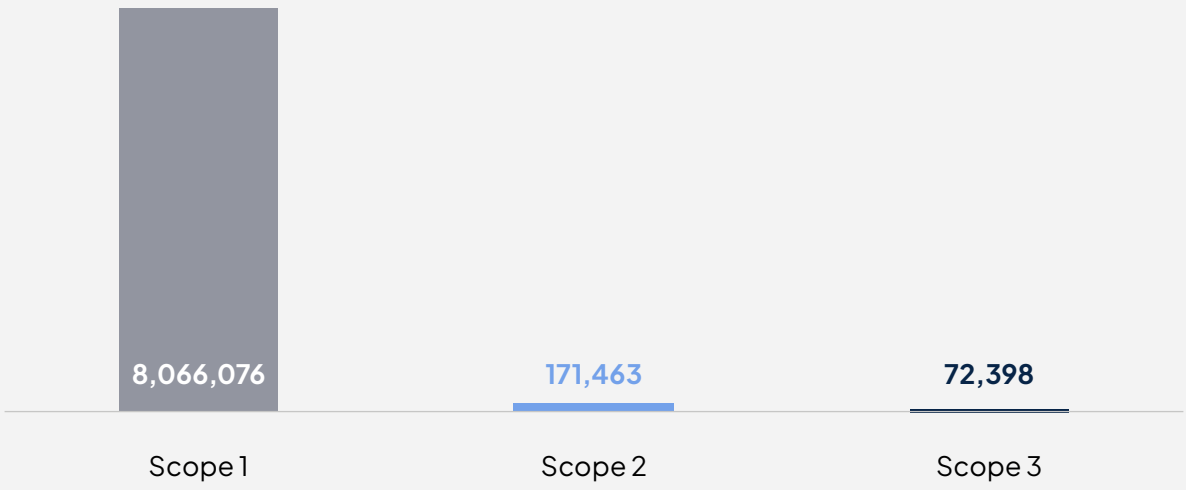
Sector Total Emissions (Scope 1, 2 and 3) **8,309,937** $mtCO_2e$

Scope 1 + 2 Intensity **239,840** $mtCO_2e$/$M lent

Data Quality Score as per the PCAF

4.00

Oil & Gas Emissions per Scope ($mtCO_2e$) | 2023



05

Power Generation Sector

Power Generation **Sector**

Sector Insights and Trends[3]

The power generation sector is a major contributor to global GHG emissions, accounting for approximately 40% of energy-related CO_2 emissions, according to the IEA's World Energy Outlook 2022.

Electrification is a key driver of the energy transition and will increasingly serve as the foundation of the energy systems, playing a crucial role in decarbonizing the transport, building, and industrial sectors. Thus, the IEA's NZE scenario forecasts global electricity generation to increase two-and-a-half-times from 2022 to 2050.

Decarbonization Levers

Renewable energy technologies, such as solar and wind, are essential for reducing emissions in the electricity sector. In the IEA Net Zero Scenario, nearly 90% of global electricity generation by 2050 comes from renewable sources, with solar PV and wind contributing almost 70% combined.

In addition, the IEA's NZE scenario emphasizes expanding low-carbon generation through nuclear and hydropower, alongside developing storage capacity and modernizing infrastructure to support electrification, meet growing electricity demand, and maintain grid stability and flexibility.

National Context

Egypt is advancing its renewable energy capacity through projects like the Benban Solar Park and wind farms in the Gulf of Suez, aiming to achieve 42% renewable energy by 2035. The country also utilizes hydropower from the Aswan High Dam and is transitioning to natural gas to replace more carbon-intensive fuels. Energy efficiency measures, including grid modernization and LED lighting programs, further support emissions reductions.

Emissions Sources

Emissions in the power generation sector primarily come from fossil fuel combustion, fuel extraction, transmission losses, and end-use consumption.

Scope & Boundaries

As of December 31, 2023, Emirates NBD – Egypt's exposure to the power generation sector was **$47 million**. This sector accounts for **15.7%** of the bank's outstanding loans to carbon-intensive industries within its large corporate lending portfolio. All clients are classified under the business loans asset class, and the calculations encompass Scope 1, 2, and 3 emissions.

Results

The emissions of these clients were estimated based on their economic activities and attributed to the Bank's exposure. This assessment resulted in financed emissions of **365,776 mtCO_2e**, encompassing Scope 1, 2, and 3 emissions. Scope 1 emissions constituted approximately **75%** of the total power generation sector emissions, primarily originating from fuel combustion in the generation process.

[3] Information in this section are retrieved from IEA, Net Zero by 2050: A Roadmap for the Global Energy Sector and IEA: Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach.

Scope 1

275,119 $mtCO_2e$

Scope 2

37,613 $mtCO_2e$

Scope 3

53,044 $mtCO_2e$

Sector Total Emissions (Scope 1, 2 and 3)

365,776 $mtCO_2e$

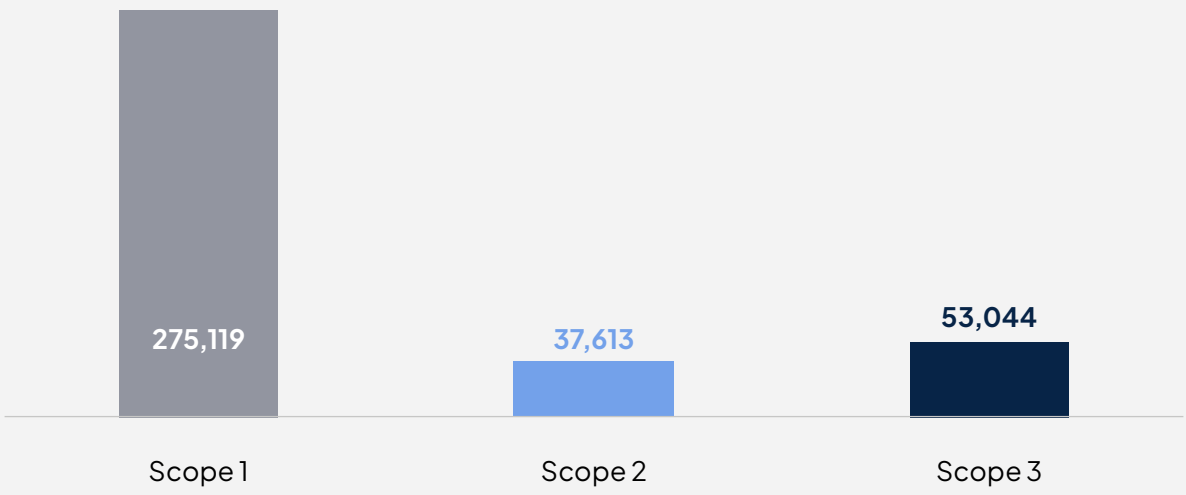
Scope 1 + 2 Intensity

6,658 $mtCO_2e$/$M lent

Data Quality Score as per the PCAF

4.00

Power Generation per Scope ($mtCO_2e$) | 2023



06

Iron & Steel Sector

Iron & Steel **Sector**

Sector Insights and Trends[4]

Steel is a critical resource across numerous industries, including construction, automotive, shipping, aviation, machinery, and consumer goods. The iron and steel sector currently accounts for approximately 8% of global final energy demand and 7% of energy-related CO_2 emissions, including process emissions. According to the IEA's NZE Scenario, the carbon intensity of the iron and steel sector must decrease by 24% by 2030, compared to 2022 levels, to align with global climate goals.

Decarbonization Levers

The sector holds immense potential to reduce energy consumption and greenhouse gas emissions through innovation, the adoption of low-carbon technologies, and improved resource efficiency.

The IEA's decarbonization strategy emphasizes three actions to achieve net-zero emissions. First, improving material efficiency through smarter design and manufacturing processes. Second, the industry must fundamentally transform its production methods by shifting from coal-based blast furnaces to hydrogen-powered direct reduction systems, with primary steelmakers needing to adopt these new technologies at scale despite current commercial challenges. Third, carbon capture systems will be deployed selectively to address remaining emissions from traditional plants, though this represents a transitional rather than ultimate solution.

National Context

The Egyptian government emphasizes the importance of transitioning to low-carbon steel production to maintain export competitiveness, especially in light of mechanisms like the European Union's Carbon Border Adjustment Mechanism (CBAM). The Ministry of Trade and Industry is collaborating with leading companies, research centers, and technology providers to explore innovative solutions, including electric arc furnaces and clean hydrogen, to support cleaner production methods.

Emissions Sources

Steelmaking emissions are largely driven by fuel consumption and iron reduction processes. The industry employs three primary production routes, each with unique emission profiles. The Blast Furnace – Basic Oxygen Furnace (BF-BOF) relies on coal and coke for energy and processing. The Direct Reduced Iron – Electric Arc Furnace (DRI-EAF) utilizes natural gas, coal, and electricity. Lastly, the EAF-Scrap method, a secondary route, uses scrap metal as its input and operates entirely on electricity.

Scope & Boundaries

As of December 31, 2023, Emirates NBD – Egypt's exposure to the iron& steel sector was **$109.9 million**. This sector accounts for **36.8%** of the bank's outstanding loans to carbon-intensive industries within its large corporate lending portfolio. All clients are classified under the business loans asset class, and the calculations encompass Scope 1, 2, and 3 emissions.

Results

The emissions of these clients were estimated based on their economic activities and attributed to the Bank's exposure. This assessment resulted in financed emissions of **147,757 mtCO_2e** including Scope 1, 2 and 3 emissions. **Scope 3 emissions** accounted for approximately **72%** of total iron & steel sector emissions.

[4] Information in this section are retrieved from IEA, Net Zero by 2050: A Roadmap for the Global Energy Sector and IEA: Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach.

Scope 1 **37,369** $mtCO_2e$

Scope 2 **4,623** $mtCO_2e$

Scope 3 **105,765** $mtCO_2e$

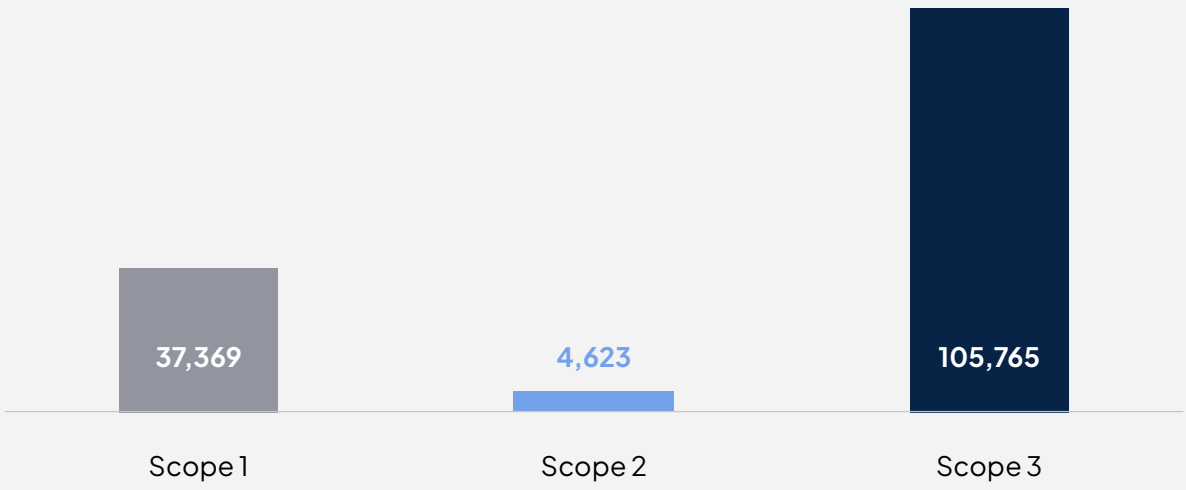
Sector Total Emissions (Scope 1, 2 and 3) **147,757** $mtCO_2e$

Scope 1 + 2 Intensity **382.21** $mtCO_2e$/$M lent

Data Quality Score as per the PCAF

4.00

Iron & Steel Emissions per Scope ($mtCO_2e$) | 2023



07
Aluminum
Sector

Aluminum **Sector**

Sector Insights and Trends[5]

Aluminium is an energy-intensive material that is essential for the global energy transition. The IEA's NZE Scenario predicts a growing demand for aluminium to support low-carbon technologies, making the decarbonization of its production crucial for meeting climate goals. Aluminium is widely used across industries such as construction, transportation, power infrastructure, machinery, and packaging. It is also a key component in clean energy technologies, including solar PV, where it accounts for over 85% of materials, electric vehicles for lightweight design and battery storage, and electricity networks for infrastructure.

Decarbonization Levers

In the aluminium sector, efforts will focus on increasing production efficiency and optimizing energy consumption through the adoption of alternative heat sources and improved process efficiency. The transition will also leverage low-carbon electricity to reduce emissions, alongside expanding the use of secondary metal capacity and scrap aluminium.

National Context

Egypt is actively pursuing decarbonization of its aluminum sector by integrating large-scale renewable energy projects to reduce carbon emissions and comply with international environmental standards. This is driven by Egypt's export activities to Europe, which will be impacted by the Carbon Border Adjustment Mechanism (CBAM) guidelines. Thus, taking proactive measures to ensure the aluminium sector meets CBAM requirements has become a priority for Egypt.

Emissions Sources

Aluminium manufacturing is a highly emissions-intensive process, with three primary sources of emissions: thermal energy consumption during refining, electricity use for electrolysis, and direct emissions from the electrolysis process caused by the breakdown of carbon-based anodes.

Scope & Boundaries

As of December 31, 2023, Emirates NBD – Egypt's exposure to the Aluminium sector was only **$30.9 million**. This sector accounts for **10.4%** of the bank's outstanding loans to carbon-intensive industries within its large corporate lending portfolio. Clients in the Aluminium sector are classified under the business loans asset class, and the calculations encompass Scope 1, 2, and 3 emissions

Results

The emissions of these client were estimated based on their economic activity and attributed to the Bank's exposure. This assessment resulted in financed emissions of **9,164 mtCO_2e** including Scope 1, 2 and 3 emissions.

Scope 3 emissions accounted for approximately **84%** of total aluminium sector emissions.

[5] Information in this section are retrieved from IEA, Net Zero by 2050: A Roadmap for the Global Energy Sector and IEA: Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach.

Scope 1 **585** $mtCO_2e$

Scope 2 **869** $mtCO_2e$

Scope 3 **7,710** $mtCO_2e$

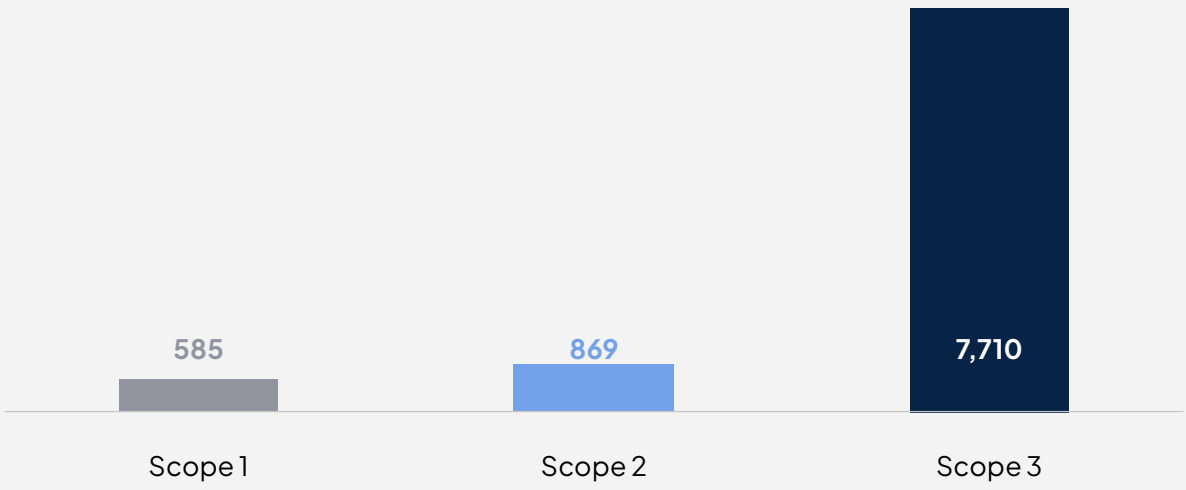
Sector Total Emissions (Scope 1, 2 and 3) **9,164** $mtCO_2e$

Scope 1 + 2 Intensity **47** $mtCO_2e$/$M lent

Data Quality Score as per the PCAF

4.00

Aluminum Emissions per Scope ($mtCO_2e$) | 2023



08

Real Estate Sector

Real Estate **Sector**

Sector Insights and Trends[6]

According to the IEA, buildings are responsible for 30% of global final energy consumption and 26% of global energy-related emissions. Of these emissions, 8% are direct emissions from buildings, while the remaining 18% result from the production of electricity and heat used within them.

Emissions Sources

Approximately 80% of the building sector's emissions are operational, stemming from the use phase of buildings. The remaining 20-25% of emissions are embodied (Scope 3), generated during the production, maintenance, and disposal of building materials, contributing to a building's total life cycle emissions.

Decarbonization Levers

The IEA's Net Zero Emissions scenario presents a comprehensive decarbonization pathway for the real estate sector, emphasizing energy efficiency, building electrification, and low-carbon construction. Central to this transformation is the large-scale retrofitting of existing buildings with high-performance insulation, smart HVAC systems, and energy-efficient appliances, alongside strict zero-energy standards for new constructions. The IEA's NZE target aims for all new buildings to be zero-carbon-ready by 2030, with 2.5% of existing buildings retrofitted to zero-carbon standards annually from 2030 onward. Green building certifications—such as LEED, EDGE, and others—play a vital role in supporting and validating these efforts.

Scope & Boundaries

As of December 31, 2023, Emirates NBD – Egypt's exposure to the real estate sector was **$76.6 million**. This sector accounts for **25.6%** of the bank's outstanding loans to carbon-intensive industries within its large corporate lending portfolio. Most of these clients are classified under the business loans asset class, while a few number is classified under the project finance asset class. The calculations encompass Scope 1, 2, and 3 emissions.

National Context

Egypt's updated Nationally Determined Contributions (NDCs) emphasize the need to reduce carbon emissions in the real estate sector by prioritizing sustainability in both new and existing buildings. Key strategies include expanding renewable energy and energy efficiency measures, such as installing rooftop solar panels, promoting solar water heaters, and increasing the use of LED lighting in residential areas by 2030. Additionally, advancing green building initiatives—through stricter energy efficiency codes for new constructions, retrofitting existing buildings, and incentivizing sustainable technologies—will play a critical role in achieving a low-carbon real estate sector.

Results

The emissions of these clients were estimated based on their economic activities and attributed to the Bank's exposure. This assessment resulted in financed emissions of **1,392 mtCO_2e** including Scope 1, 2 and 3 emissions. **Scope 3 emissions** accounted for approximately **76%** of total real estate emissions.

[6] Information in this section are retrieved from IEA, Net Zero by 2050: A Roadmap for the Global Energy Sector and IEA: Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach.

Scope 1

281 $mtCO_2e$

Scope 2

51 $mtCO_2e$

Scope 3

1,060 $mtCO_2e$

Sector Total Emissions (Scope 1, 2 and 3)

1,392 $mtCO_2e$

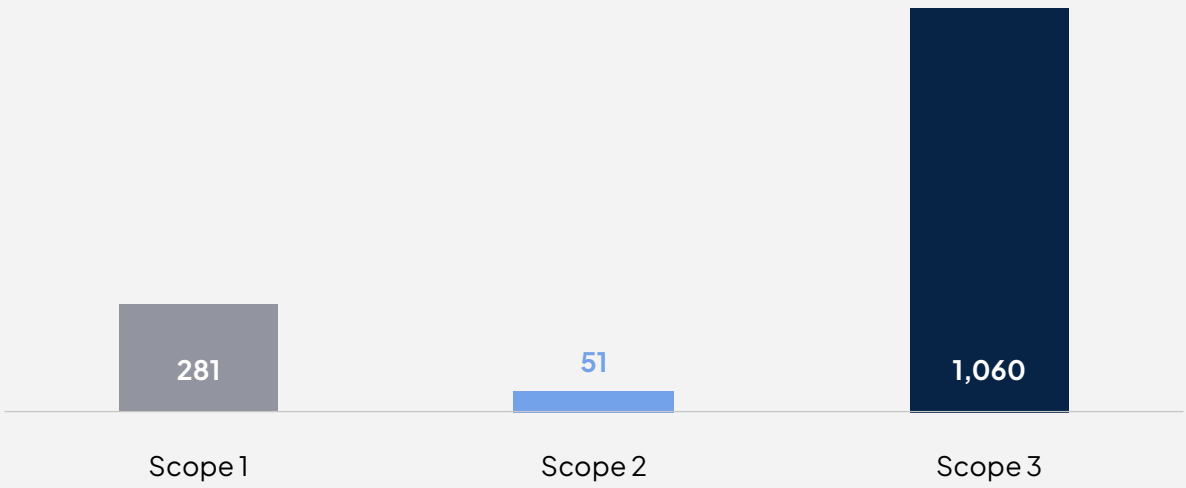
Scope 1 + 2 Intensity

4.33 $mtCO_2e$/$M lent

Data Quality Score as per the PCAF

4.07

Real Estate Emissions per Scope ($mtCO_2e$) | 2023



09

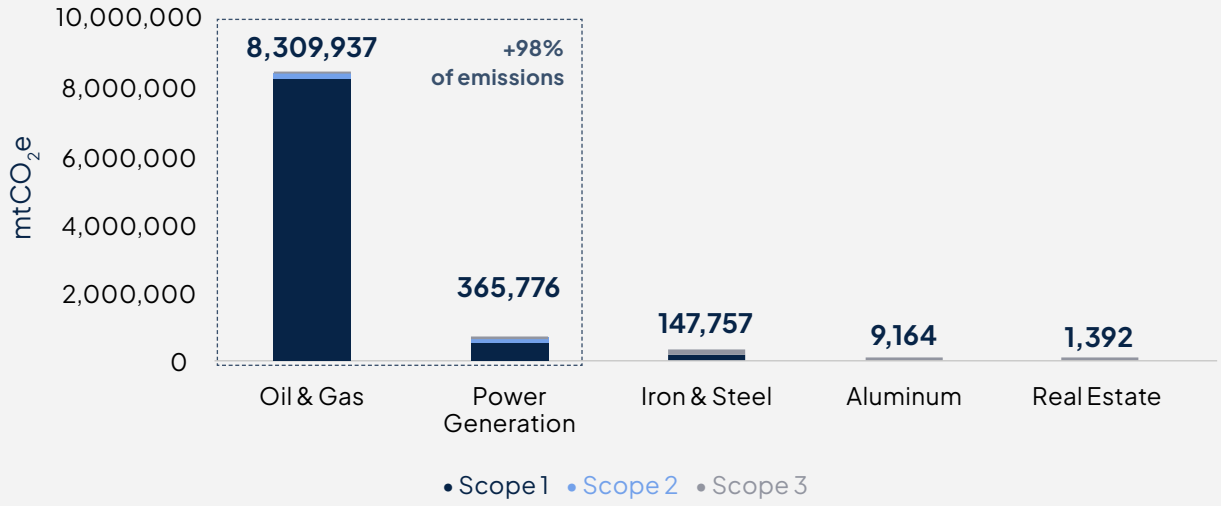
Results Summary

Results **Summary**

The oil and gas sector accounts for 94% of the Bank's financed emissions, with the majority classified as Scope 1 emissions, which are directly linked to the operational activities of oil and gas companies. These emissions primarily stem from fuel combustion in equipment used during the extraction process in addition to flaring emissions and methane leaks.

	Oil & Gas	Power Generation	Iron & Steel	Aluminium	Real Estate
Bank Exposure per sector					
Outstanding loans ($M)	34.3	47.0	109.9	30.9	76.6
Sector % from carbon intensive sectors in large corporate lending portfolio	11.5%	15.7%	36.8%	10.4%	25.6%
2023 Results					
Scope 1 ($mtCO_2e$)	8,066,076	275,119	37,369	585	281
Scope 2 ($mtCO_2e$)	171,463	37,613	4,623	869	51
Scope 3 ($mtCO_2e$)	72,398	53,044	105,765	7,710	1,060
Total Emissions ($mtCO_2e$)	**8,309,937**	**365,776**	**147,757**	**9,164**	**1,392**
Scope 1 & 2 Emissions Intensity ($mtCO_2e$/$M lent)	**239,840**	**6,658**	**382**	**47**	**4.33**

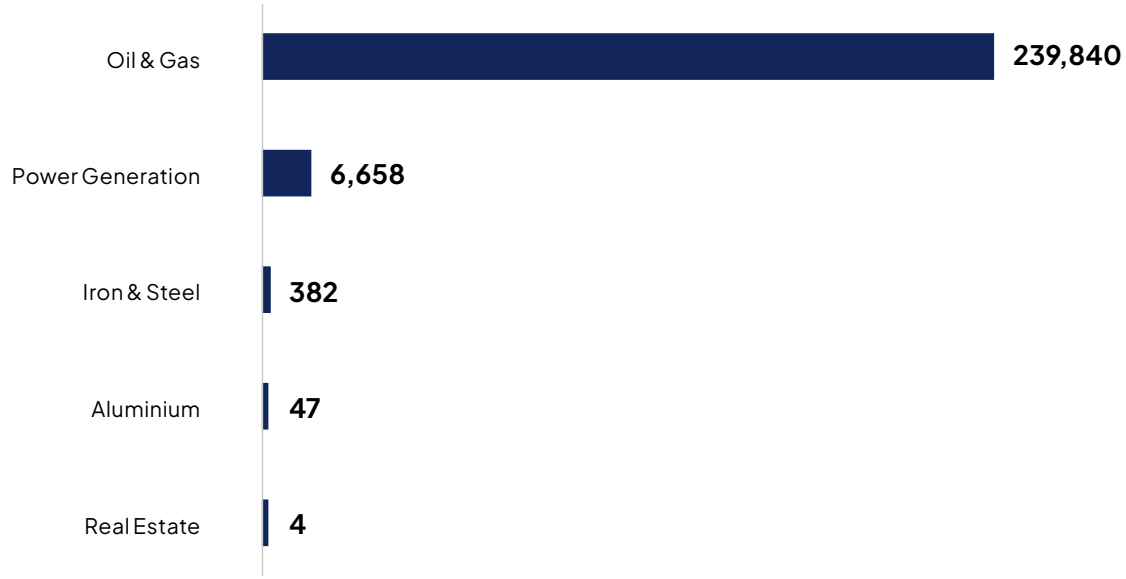
Financed Emissions Per Sector By Scope | 2023



The oil and gas sector, along with power generation, accounts for approximately 98% of Emirates NBD - Egypt's financed emissions, despite representing only 27% of the carbon intensive sectors in the bank's large corporate portfolio. This disparity is due to the nature of these sectors as high carbon intensive. Among them, the oil and gas sector exhibit the highest Scope 1 and 2 emissions intensity.

Financed Emissions Scope 1 and 2 Intensity Per Sector | 2023

($mtCO_2e$/$M lent)



10 Way Forward

Way Forward

As part of Emirates NBD - Egypt's ongoing commitment to sustainable finance, this preliminary plan explores potential pathways to address financed emissions across our portfolio. The proposed actions outline initial steps to enhance data collection, engage stakeholders, and consider financial incentives—laying the groundwork for a more comprehensive strategy as regulatory frameworks and client capabilities evolve.

Key **Actions**

Data Quality & Transparency

A crucial step in reducing emissions is enhancing the quality of emissions data collected from clients by obtaining actual reported figures. However, this remains a challenge, as many clients do not currently assess their GHG emissions. To bridge this gap, Emirates NBD - Egypt aims to support clients in measuring and reporting their emissions in line with established standards. This initiative will improve data accuracy, strengthening the reliability of our reported financed emissions.

Stakeholder Engagement & Transition Support

Reducing financed emissions requires strong collaboration with stakeholders. We plan to actively support our clients in their transition to sustainability while also engaging with industry groups and regulators to enhance expertise, gain valuable insights, identify effective strategies, and promote best practices in decarbonization.

Client Selection & Capital Allocation

Capital allocation should prioritize companies that show measurable progress in sustainability, evidenced by credible transition strategies and emissions reduction targets.

Green Financing Incentives

Introducing preferential financial terms (e.g., reduced interest rates, extended tenors) for projects delivering decarbonization solutions, such as renewable energy installations, circular economy facilities, and other low-carbon technologies can serve as a powerful incentive for companies to pursue their decarbonization efforts.

Risk Integration & Governance

Incorporating net-zero alignment metrics and climate risk indicators could strengthen our risk management systems. This enhanced framework will embed climate considerations at all decision levels, ensuring financial activities consistently advance our sustainable finance leadership.

11 Annex

Annex

Definitions & Terminology

Absolute emissions	Emissions attributed to a financial institution's lending and investing activity. (Expressed in tonnes CO_2e.)
Asset class	A group of financial instruments that have similar financial characteristics.
Attribution factor	The share of total GHG emissions of the borrower or investee that are allocated to the loan or investments.
Base year	A base year is a reference year in the past with which current emissions can be compared. To maintain consistency and comparability with future carbon footprints, base year emissions need to be recalculated when structural changes occur in the company that change the inventory boundary (such as acquisitions or divestments). If no changes to the boundaries of the inventory happen, the base year is not adjusted.
Business loans	Loans and lines of credit for general corporate purposes (i.e., with unknown use of proceeds as defined by the GHG Protocol) to businesses, non-profits, and any other structure of organization that are not traded on a market and are on the balance sheet of the financial institution.
Carbon footprint	The amount of Carbon Dioxide that an individual, group, or organization lets into the atmosphere in a certain time frame.
CO_2e	Carbon dioxide equivalent or CO_2 equivalent, abbreviated as CO_2e, is a metric used to compare the emissions from various GHGs based on their global-warming potential (GWP), by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.
Emissions factors	Specific value used to convert activity data into greenhouse gas emission values.
Financed emissions	GHG emissions that occur as a result of financing, including lending and investment activity. These activities fall within scope 3, category 15 of the GHG protocol.
GHG protocol	Greenhouse Gas Protocol is a uniform methodology used to calculate the carbon footprint of an organization.
Greenhouse gases	GHGs are atmospheric gases that absorb and emit radiation within the thermal infrared range and that contribute to global climate change. The seven gases include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF_6), and nitrogen trifluoride (NF_3).
Indirect emissions	Greenhouse gas emissions from facilities/sources that are not owned or controlled by the reporting company, but for which the activities of the reporting company are responsible, e.g., purchasing of electricity.
Kyoto protocol	It operationalizes the United Nations Framework Convention on Climate Change by committing industrialized countries to limit and reduce greenhouse gases (GHG) emissions in accordance with agreed individual targets.
Scope 1	Direct emissions from sources that are owned or controlled by the reporting entity (i.e., any owned or controlled activities that release emissions straight into the atmosphere).
Scope 2	Indirect emissions associated with the consumption of purchased electricity, heat or steam from a source that is not owned or controlled by the company.
Scope 3	Indirect emissions resulting from other activities that are not covered in scope 1 and 2. This includes transport fuel used by air business travel, and employee-owned vehicles for commuting to and from work; emissions resulting from courier shipment; emissions from waste disposal, etc.

Data Quality Score Table

Data Quality (Score 1 = highest: Score 5 = lowest data quality)	Options to Estimate the Financed Emissions		When to Use Each Option
Score 1	Option 1: Reported emissions	1a	Outstanding amount in the company and total company equity plus debt are known. Verified emissions of the company are available.
		1b	Outstanding amount in the company and total company equity plus debt are known. Unverified emissions calculated by the company are available.
Score 2	Option 2: Physical activity-based emissions	2a	Outstanding amount in the company and total company equity plus debt are known. Reported company emissions are not known. Emissions are calculated using primary physical activity data for the company's energy consumption and emission factors specific to that primary data. Relevant process emissions are added.
Score 3		2b	Outstanding amount in the company and total company equity plus debt are known. Reported company emissions are not known. Emissions are calculated using primary physical activity data for the company's production and emission factors specific to that primary data.
Score 4	Option 3: Economic activity-based emissions	3a	Outstanding amount in the company, total company equity plus debt, and the company's revenue is known. Emission factors for the sector per unit of revenue are known (e.g., tCO_2e per euro of revenue earned in a sector).
Score 5		3b	Outstanding amount in the company is known. Emission factors for the sector per unit of asset (e.g., tCO_2e per euro of asset in a sector) are known
		3c	Outstanding amount in the company is known. Emission factors for the sector per unit of revenue (e.g., tCO_2e per euro of revenue earned in a sector) and asset turnover ratios for the sector are known.

12 Quality Assurance statement

Quality Assurance Statement

To Emirates NBD - Egypt Board of Directors,

We have been appointed by Emirates NBD - Egypt to conduct the financed emissions calculations pertaining to the bank's loans portfolio for the period from 1st of January 2023 to the 31st of December 2023.

AUDITORS' INDEPENDENCE AND QUALITY CONTROL

We adhere to integrity, objectivity, competence, due diligence, confidentiality, and professional behavior. We maintain a quality control system that includes policies and procedures regarding compliance with ethical requirements, professional standards, and applicable laws and regulations.

AUDITORS' RESPONSIBILITY

In conducting the financed emissions calculations, we have adopted the Partnership for Carbon Accounting Financials (PCAF) (The Global GHG Accounting and Reporting Standard for the Financial Industry. 2022 "second edition"), and the Greenhouse Gas Protocol Guidelines.

It is our responsibility to express a conclusion about the quality and completeness of the primary data collected/ provided by Emirates NBD - Egypt. We have performed the following quality assurance/ quality control tasks:

- Several rounds of data requests were performed whenever the received information was not clear;
- All data presented in this report were provided by the reporting entity and revised and completed by our technical teams;
- For data outliers, meetings were held to investigate the accuracy of the data and new data was provided when requested;
- Any gaps, exclusions and/or assumptions have been clearly stated in the report.

CONCLUSION

Based on the aforementioned procedures, nothing has come to our attention that would cause us to believe that Emirates NBD - Egypt raw data used in the carbon footprint calculations have not been thoroughly collected, verified, and truly represent Emirates NBD - Egypt resource consumption in the reporting period related to all categories/aspects identified in this report. We do not assume and will not accept responsibility to anyone other than Emirates NBD - Egypt for the provided assurance and conclusion.

Dr. Abdelhamid Beshara, Founder and Chief Executive Officer

MASADER, ENVIRONMENTAL & ENERGY SERVICES S.A.E CAIRO,

May 2025

ABOUT MASADER

Masader is an innovative interdisciplinary consulting, design and engineering sustainability firm based in Cairo, aiming at leveraging positive impact across the MENA region and globally. It specializes in Resource Efficiency, Sustainable Management of Natural Resources and Integrated Sustainability Solutions. Since 2015, Masader has led 100+ projects across the areas of energy, environment, climate change & carbon footprint, circular economy, green building (LEED), as well as corporate sustainability strategies, reporting and certification.

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13 Disclaimer

Disclaimer

Please note that the analysis and estimation of financed emissions are ongoing processes. The estimates presented in this report are based on internal bank data and non-financial metrics from external sources, which Emirates NBD - Egypt does not independently verify. These estimates involve inherent risks and uncertainties that may cause actual outcomes to differ significantly from expectations. Factors such as financial market fluctuations, economic conditions in Egypt and globally, market volatility, national policies, and our clients' actions may impact the final results.

Data Quality

The indicators presented in this report are derived from a combination of internal and external data sources, all of which are subject to measurement uncertainties. At present, climate-related data remains incomplete, inconsistent, and lacks universally accepted global standards. However, as more clients adopt climate disclosure frameworks and reporting practices, we anticipate an improvement in the accessibility and reliability of external emissions data. Despite ongoing enhancements, data collection, verification challenges, and the absence of standardized industry-wide measurement techniques continue to pose obstacles to data consistency. Addressing these limitations remains a priority for stakeholders striving for greater transparency.

Methodology

Current emissions calculation methodologies present challenges in terms of consistency, industry-wide adoption, and cross-sector replicability. Regulatory guidance and reporting requirements for climate-related disclosures have evolved in recent years, but these frameworks are still developing and expected to stabilize over time. As methodologies improve and data quality advances, Emirates NBD - Egypt will continue to assess their impact on reported baselines, which may result in refinements to calculations over time.

بنك الإمارات دبي الوطني

Emirates NBD