



GHG EMISSION REPORT

البَدَدَاد
ALBADDAD

Albaddad Capital LLC (Group) Dubai, UAE.

1. EXECUTIVE SUMMARY

1.1 Overview of Organization and Reporting Period

ALBADDAD operates in the design, manufacture, supply, installation, rental and maintenance of modular structures, tents, prefabricated buildings, steel and glass products, construction solutions and turnkey event infrastructure. Its activities serve multiple industries, including construction, events and oil & gas sectors.

This Greenhouse Gas (GHG) Emission Report has been prepared for the reporting period **1st January 2025 to 31st December 2025**, using **2024 as the baseline year**. The organization's GHG inventory covers direct emissions, purchased-energy emissions and other relevant indirect emissions associated with its value chain.

The underlying data collection checklist identifies the company's head office at National Industries Park, JAFZA, Dubai, UAE, and records 1,130 employees. The checklist also identifies activity-data categories covering stationary combustion, mobile combustion, refrigerants, purchased electricity, raw materials, packaging, employee commuting and upstream/downstream transportation.

1.2 Key Emission Results

Scope	Emission Category	GHG Emissions (tCO ₂ e)	Contribution
Scope 1	Direct emissions	5,236.26	8.99%
Scope 2 Location-Based and Market-Based	Purchased energy	1,786.54	3.07%
Scope 3	Other indirect emissions	51,240.17	87.95%
Total	Corporate GHG Inventory	58,262.97	100.00%

The total reported GHG footprint for 2025 is therefore **58,262.97 tCO₂e**.

Scope 3 represents the largest portion of the organization's footprint, contributing approximately **87.95%** of total reported emissions. This indicates that value-chain activities, transportation, materials, employee-related activities and downstream activities are significant areas for future GHG reduction.

1.3 Highlights and Reduction Opportunities

Key observations from the inventory include:

1. Scope 3 is the organization's principal emissions category.
2. Upstream Scope 3 emissions are reported as **5,124.02 tCO₂e**.

3. Downstream Scope 3 emissions are reported as **46,116.15 tCO₂e**.
4. Scope 1 emissions are associated with fuel combustion and refrigerant-related activities.
5. Scope 2 emissions are associated primarily with purchased electricity.
6. Greater supplier engagement can help reduce emissions associated with purchased materials.
7. Logistics optimization can address upstream and downstream transportation emissions.
8. Renewable electricity procurement can reduce market-based Scope 2 emissions.
9. Energy-efficient equipment and production systems can reduce Scope 1 and Scope 2 emissions.
10. Low-carbon materials and circular material practices can support long-term Scope 3 reductions.

2. INTRODUCTION

2.1 Purpose of the Report

The purpose of this report is to establish a systematic GHG emissions inventory for ALBADDAD for the 2025 reporting period.

The report provides a structured assessment of GHG emissions associated with the organization's operations and value chain and supports:

- ❖ GHG performance monitoring;
- ❖ identification of significant emission sources;
- ❖ ESG reporting;
- ❖ customer sustainability requirements;
- ❖ carbon-reduction planning;
- ❖ environmental performance evaluation;
- ❖ management decision-making;
- ❖ future target setting; and
- ❖ continuous improvement.

The inventory is structured in accordance with the principles of **ISO 14064-1** and the **GHG Protocol Corporate Accounting and Reporting Standard**.

2.2 Intended Users

The intended users of this report include:

- ❖ Top management;
- ❖ ESG and sustainability teams;
- ❖ Environment, Health and Safety personnel;
- ❖ Energy and facility management teams;
- ❖ Finance and procurement functions;
- ❖ Customers and business partners;
- ❖ Investors and other stakeholders;
- ❖ Certification and assurance bodies;
- ❖ Regulatory authorities, where applicable; and
- ❖ Supply-chain partners.

2.3 Reporting Objectives

The GHG inventory is intended to support both voluntary sustainability management and stakeholder/customer requirements.

The objectives are to:

1. Quantify organizational GHG emissions.
2. Establish a consistent annual accounting process.
3. Identify material emission sources.
4. Support ESG performance reporting.
5. Establish a basis for future GHG reduction targets.
6. Improve energy and fuel management.
7. Identify value-chain reduction opportunities.
8. Improve the quality and traceability of environmental data.

3. ORGANIZATION DESCRIPTION

3.1 Company Profile

ALBADDAD is engaged in the design, manufacture, supply, installation, rental and maintenance of modular structures, tents, prefabricated buildings, steel and glass products, construction solutions and turnkey event infrastructure. The organization serves sectors including construction, events and oil & gas.

Its operations may involve manufacturing processes, fabrication, assembly, warehousing, transportation, installation, rental operations, maintenance activities and supporting administrative functions.

3.2 Organizational Structure

The GHG management structure should be coordinated through the following functional responsibilities:

Function	GHG Responsibility
Top Management	Overall accountability and resource allocation
ESG/Sustainability	GHG inventory coordination and reporting
EHS/Environment	Environmental data and compliance
Energy/Facility Management	Electricity and fuel data
Production	Operational consumption data
Procurement	Purchased-material and supplier data
Logistics	Transportation data
HR	Employee and commuting data
Finance	Invoice and consumption verification
Internal Audit	Data and process verification

3.3 Operations, Facilities and Boundaries

The reporting inventory is based on the organization and operations represented by ALBADDAD.

The available data collection checklist identifies the Head Office at National Industries Park, JAFZA, Dubai, UAE. The inventory should include applicable controlled manufacturing, warehouse, office, rental, maintenance and supporting facilities falling within the selected organizational boundary.

Where separate group entities, leased facilities, joint ventures or third-party controlled facilities exist, their inclusion should be assessed during the annual boundary review.

4. REPORTING BOUNDARY

4.1 Organizational Boundary

For this inventory, the **Operational Control Approach** is recommended.

Under the operational control approach, ALBADDAD accounts for GHG emissions from operations over which it has the authority to introduce and implement operating policies.

This approach is suitable for management-oriented GHG reduction because it enables the organization to focus on emissions that it can directly influence.

4.2 Operational Boundary

The operational boundary includes:

Scope 1

- ❖ Diesel combustion;
- ❖ Furnace oil, where applicable;
- ❖ LPG/propane;
- ❖ Natural gas, where applicable;
- ❖ Company vehicle fuel;
- ❖ Refrigerant losses;
- ❖ Other direct combustion sources, where applicable.

Scope 2

- ❖ Purchased electricity;
- ❖ Purchased steam, heating or cooling, if applicable.

Scope 3

- ❖ Purchased raw materials;
- ❖ Packaging materials;
- ❖ Upstream transportation;
- ❖ Downstream transportation;
- ❖ Employee commuting;

- ❖ Business travel;
- ❖ Waste generated in operations;
- ❖ Other relevant upstream activities;
- ❖ Downstream value-chain emissions;
- ❖ Relevant product-use/end-of-life categories where material.

4.3 Entities and Locations Covered

The primary reported location identified in the data collection checklist is:

ALBADDAD CAPITAL LLC (GROUP)

LOCATIONS COVERED

ALBADDAD CAPITAL LLC (GROUP)	
Head Office: Plot No. TP010405-TP010406, Techno Park, P. O. Box 56162, Dubai, United Arab Emirates.	
<u>ALBADDAD ENGINEERING LLC</u> Plot No. TP010405-TP010406, Dubai Industries Park, P.O. Box 56162, Dubai, United Arab Emirates.	<u>ALBADDAD EXPERIENCE LLC</u> Plot No. TP010405-TP010406, Techno Park, P. O. Box 56162, Dubai, United Arab Emirates.
<u>ALBADDAD ART HUB LLC</u> Plot No. TP010405-TP010406, Dubai Industries Park, P. O. Box 56162, Dubai, United Arab Emirates.	<u>ALBADDAD CONSTRUCTION LLC</u> Plot No. TP010405-TP010406, Dubai Industries Park, P. O. BOX 56162, Dubai, United Arab Emirates.
<u>ALBADDAD CONSTRUCTION LLC -SOLE PROPRIETORSHIP (SHARJAH)</u> Industrial Area No 7, Shade 1,2 & 3 behind Altawoon St., Sharjah, United Arab Emirates.	<u>ALBADDAD INTERNATIONAL CONSTRUCTION - SOLE PROPRIETORSHIP LLC (ABU DHABI)</u> P. O. Box 3017, Abu Dhabi, United Arab Emirates.
<u>ALBADDAD CONSTRUCTION SOLE PROPRIETORSHIP LLC (AI AIN)</u> P. O. Box 16489, Al Ain Municipality Building, Al Mouiji Area, Al Ain, United Arab Emirates.	<u>ALBADDAD SOLUTIONS</u> Office 208, Amir Abu Ghazaleh Building, Next to Al Khail Mall, Al Quoz 3, Dubai, United Arab Emirates.
<u>ALBADDAD TRANSPORTATION LLC</u> Office 208, Amir Abu Ghazaleh Building, Next to Al Khail Mall, Al Quoz 3, Dubai, United Arab Emirates.	<u>ALBADDAD PREFAB BUILDING LLC</u> Plot No. TP010405-TP010406, Techno Park, Dubai P. O. Box: 56162, United Arab Emirates.

4.4 Supply Chain Screening with Significance Assessment from Category 1 to 15

GHG Protocol Category	Scope 3 Category	Applicability to ALBADDAD	Significance	Reason for Significance
Category 1	Purchased Goods and Services	Applicable	Very High	High procurement of steel, aluminium, glass, fabrics, construction materials, equipment, and other goods used in manufacturing and project delivery.
Category 2	Capital Goods	Applicable	High	Purchase of machinery, production equipment, vehicles, buildings, tools, and other long-term assets generates embodied emissions.
Category 3	Fuel- and Energy-Related Activities	Applicable	High	Upstream emissions associated with purchased fuels and electricity are relevant to the company's energy-intensive manufacturing and operational activities.
Category 4	Upstream Transportation and Distribution	Applicable	High	Transportation of purchased raw materials, components, equipment, and supplies to ALBADDAD facilities and project locations contributes to Scope 3 emissions.
Category 5	Waste Generated in Operations	Applicable	Medium	Manufacturing, fabrication, installation, construction, and maintenance activities generate metal, packaging, fabric, wood, plastic, and other waste streams.
Category 6	Business Travel	Applicable	Medium	Employee air travel, accommodation-related activities, and other business transportation contribute to indirect GHG emissions.
Category 7	Employee Commuting	Applicable	Medium	Employee transportation between residences and workplaces/project locations creates indirect transportation emissions.
Category 8	Upstream Leased Assets	Applicable	Low	Leased facilities, equipment, vehicles, or other assets may generate emissions not already included within Scope 1 or Scope 2.

Category 9	Downstream Transportation and Distribution	Applicable	High	Delivery of modular structures, tents, prefabricated buildings, steel and glass products, and other solutions to customers and project sites involves transportation emissions.
Category 10	Processing of Sold Products	Applicable	Low	ALBADDAD primarily supplies finished or configured products and infrastructure solutions; further processing by customers is generally limited.
Category 11	Use of Sold Products	Applicable	Medium	Certain sold products and infrastructure may consume energy during their operational life, although emissions vary according to application and customer use.
Category 12	End-of-Life Treatment of Sold Products	Applicable	High	Modular structures, tents, steel, aluminium, glass, plastics, fabrics, and other products eventually require reuse, recycling, recovery, or disposal.
Category 13	Downstream Leased Assets	Applicable	High	ALBADDAD provides rental of modular structures, tents, facilities, and related equipment; emissions associated with operation of leased assets may occur during the rental period.
Category 14	Franchises	Not Applicable	Low	ALBADDAD's business model does not primarily operate through franchised facilities or franchise arrangements.
Category 15	Investments	Not Applicable	Low	ALBADDAD does not identify material investment activities requiring separate Scope 3 Category 15 accounting within the defined organizational boundary.

5. REPORTING PERIOD

5.1 Start and End Date

Start Date: 1 January 2025

End Date: 31 December 2025

The reporting checklist confirms January 2025–December 2025 as the reporting period.

5.2 Frequency of Reporting

The GHG inventory should be prepared annually.

For effective management, significant activity data should preferably be monitored monthly and consolidated annually.

Recommended monitoring frequency:

- ❖ Electricity – Monthly
- ❖ Diesel – Monthly
- ❖ LPG – Monthly
- ❖ Natural gas – Monthly
- ❖ Refrigerants – At every top-up/service
- ❖ Raw materials – Monthly
- ❖ Packaging – Monthly
- ❖ Transportation – Monthly/quarterly
- ❖ Employee commuting – Annual survey with periodic review
- ❖ Business travel – Monthly/quarterly
- ❖ Waste – Monthly
- ❖ GHG inventory – Annual

6. GHG ACCOUNTING METHODOLOGY

6.1 Standards Followed

The inventory is structured with reference to:

1. ISO 14064-1:2018 – Greenhouse gases – Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals.
2. GHG Protocol Corporate Accounting and Reporting Standard.
3. Applicable GHG Protocol Scope 2 guidance for purchased electricity.
4. Applicable recognized emission-factor sources.

6.2 Calculation Approach

The general calculation methodology is:

GHG Emissions = Activity Data × Emission Factor × GWP Conversion

Examples include:

Diesel emissions = Diesel consumed × Diesel emission factor

Electricity emissions = Electricity consumed × Electricity emission factor

Refrigerant emissions = Refrigerant loss × Refrigerant-specific GWP

Transport emissions = Distance × Load/Quantity × Transport emission factor

Results are expressed as:

tonnes of carbon dioxide equivalent (tCO₂e).

6.3 GWP Approach

Individual greenhouse gases such as:

- ❖ CO₂;
- ❖ CH₄;
- ❖ N₂O; and relevant fluorinated gases are converted to CO₂-equivalent using the applicable Global Warming Potential values adopted by the selected accounting methodology.

The selected GWP source should be documented consistently across reporting years.

6.4 Tools or Software Used

The current data collection checklist provides the source data for the inventory. The organization may maintain the calculation model using:

- ❖ Excel-based GHG calculation workbook;
- ❖ ERP consumption records;
- ❖ electricity bills;
- ❖ fuel records;
- ❖ procurement records;
- ❖ logistics records;

- ❖ waste records; and
- ❖ ESG data management systems.

No specific commercial GHG software is identified in the supplied checklist.

7. EMISSION SOURCES IDENTIFICATION

7.1 Direct and Indirect Sources

Source	Scope	Applicability
Diesel DG sets	Scope 1	Applicable where DG sets are operated
Furnace oil	Scope 1	Applicable if used
LPG/Propane	Scope 1	Applicable where consumed
Natural gas	Scope 1	Applicable if consumed
Company vehicles	Scope 1	Applicable
Refrigerants	Scope 1	Applicable
Purchased electricity	Scope 2	Applicable
Raw materials	Scope 3	Applicable
Packaging	Scope 3	Applicable
Upstream transportation	Scope 3	Applicable
Employee commuting	Scope 3	Applicable
Business travel	Scope 3	Applicable where incurred
Waste disposal	Scope 3	Applicable
Downstream transportation	Scope 3	Applicable
Product-related emissions	Scope 3	To be assessed

The checklist specifically identifies diesel, furnace oil, LPG/propane, natural gas, company vehicle diesel and refrigerant top-ups under Scope 1.

7.2 Source Mapping

Emission sources should be mapped to:

- ❖ Manufacturing facilities;
- ❖ Offices;
- ❖ Warehouses;
- ❖ Workshops;
- ❖ Rental operations;
- ❖ Transportation activities;
- ❖ Installation locations;
- ❖ Maintenance operations;
- ❖ Supply chain;
- ❖ Customer delivery operations.

8. GHG SCOPE CLASSIFICATION

8.1 SCOPE 1 – DIRECT EMISSIONS

Scope 1 represents direct GHG emissions from sources owned or controlled by the organization.

The data collection checklist includes the following Scope 1 activity categories:

- ❖ Diesel used in DG sets;
- ❖ Furnace oil;
- ❖ LPG/propane;
- ❖ Natural gas;
- ❖ Diesel used in company vehicles;
- ❖ Refrigerant top-ups.

The reported Scope 1 emissions are: **5,236.26 tCO₂e**

Stationary Combustion

Potential stationary sources include:

- ❖ DG sets;
- ❖ furnaces;
- ❖ boilers;
- ❖ heaters;
- ❖ process combustion equipment.

Actual consumption should be supported by fuel purchase records, tank records and equipment logs.

Mobile Combustion

Company-owned or controlled vehicles may consume diesel or other fuels.

The organization should maintain:

- ❖ vehicle-wise fuel records;
- ❖ fuel invoices;
- ❖ odometer records;
- ❖ fleet records; and
- ❖ fuel-card data.

Fugitive Emissions

Refrigerant leakage may occur from:

- ❖ air-conditioning systems;
- ❖ HVAC systems;
- ❖ chillers;
- ❖ cold rooms;
- ❖ other refrigeration equipment.

Refrigerant top-ups should be recorded by refrigerant type and quantity.

Process Emissions

No material process-emission quantity has been separately identified in the supplied checklist.

Process emissions should nevertheless be reviewed annually for manufacturing and fabrication operations.

Gas-wise Contribution – Scope 1

The available checklist provides the aggregate Scope 1 result rather than gas-by-gas quantities. Therefore, a gas-wise CO₂/CH₄/N₂O breakdown cannot be independently reconstructed from the supplied activity data.

Gas	Scope 1 Contribution
CO ₂	To be established from calculation workbook
CH ₄	To be established
N ₂ O	To be established
HFCs/refrigerant gases	To be established
Total Scope 1	5,236.26 tCO₂e

8.2 SCOPE 2 – INDIRECT ENERGY EMISSIONS

Scope 2 represents indirect emissions associated with purchased energy.

The reported Scope 2 emissions are:

Location-based Scope 2: 1,786.54 tCO₂e

Market-based Scope 2: 1,786.54 tCO₂e

These values are directly reported in the supplied checklist.

Purchased Electricity

Purchased electricity is expected to be the principal Scope 2 source for offices, manufacturing operations, warehouses, workshops and other facilities.

The organization should maintain:

- ❖ electricity bills;
- ❖ meter readings;

- ❖ utility statements;
- ❖ renewable electricity certificates, where applicable;
- ❖ electricity contracts; and
- ❖ facility-wise consumption data.

Purchased Steam/Heat/Cooling

No separate purchased steam, heat or cooling emissions are reported in the supplied checklist.

This category should be reviewed annually and reported as zero/not applicable only after verification.

Gas-wise Contribution – Scope 2

The current data sheet provides aggregate Scope 2 emissions rather than gas-specific emissions.

Gas	Scope 2 Contribution
CO ₂	Included in aggregate calculation
CH ₄	Included in aggregate calculation
N ₂ O	Included in aggregate calculation
Total Scope 2	1,786.54 tCO₂e

8.3 SCOPE 3 – OTHER INDIRECT EMISSIONS

Scope 3 represents indirect emissions occurring throughout the organization's upstream and downstream value chain.

The reported Scope 3 total is: **51,240.17 tCO₂e**

The supplied checklist further identifies:

Upstream value: 5,124.02 tCO₂e

Downstream value: 46,116.15 tCO₂e.

Scope 3 Category	Assessment
Purchased raw materials	Relevant
Packaging materials	Relevant
Upstream transportation	Relevant
Employee commuting	Relevant
Business travel	To be quantified where applicable
Waste disposal	Relevant
Downstream transportation	Relevant
Product sold	To be assessed
Product end-of-life	To be assessed

The checklist specifically requests raw-material consumption, packaging, employee commuting, upstream transport, downstream transport and finished-product quantities.

Purchased Raw Materials

Major materials used in manufacturing should be evaluated for embodied carbon.

Potential categories include:

- ❖ Steel;
- ❖ aluminium;
- ❖ glass;
- ❖ fabrics;
- ❖ polymers;
- ❖ plastics;
- ❖ construction materials;
- ❖ packaging;
- ❖ other purchased components.

Supplier-specific product carbon footprints should be preferred where reliable and independently supported.

Waste Disposal

Waste emissions should be quantified based on:

- ❖ waste type;
- ❖ quantity;
- ❖ treatment method;
- ❖ recycling;
- ❖ reuse;
- ❖ landfill;
- ❖ incineration; and
- ❖ authorized disposal routes.

Transportation and Logistics

Upstream transportation relates to movement of purchased materials from suppliers to ALBADDAD facilities.

Downstream transportation relates to movement of finished components/products from ALBADDAD facilities to customers.

The checklist explicitly requests distances for both upstream and downstream transportation.

Employee Commuting

Employee commuting emissions should be estimated using:

Number of employees × commuting distance × working days × transport mode × emission factor.

The checklist requests average employee commuting distance and total employee numbers.

Business Travel

Business travel by air, rail, taxi, rental vehicle or other modes should be included where material and data is available.

End-of-Life Product Emissions

The organization should assess whether products placed on the market create material end-of-life emissions.

For reusable modular structures and rental assets, the assessment should consider:

- ❖ reuse;
- ❖ repair;
- ❖ refurbishment;
- ❖ recycling;
- ❖ recovery; and
- ❖ final disposal.

Product Sold

Where product-use emissions are relevant, they should be evaluated using the appropriate Scope 3 methodology.

9. GHG DATA COLLECTION AND QUALITY

9.1 Data Sources and Collection Method

Data should be collected from:

- ❖ utility invoices;
- ❖ fuel invoices;
- ❖ fuel consumption registers;
- ❖ DG operating logs;
- ❖ vehicle fuel records;
- ❖ refrigerant service records;
- ❖ procurement records;
- ❖ ERP systems;
- ❖ supplier records;
- ❖ logistics records;
- ❖ employee surveys;
- ❖ waste manifests;
- ❖ travel records;
- ❖ sales records; and
- ❖ production records.

9.2 Accuracy, Completeness and Reliability

The organization should apply the following controls:

- ❖ Obtain primary data wherever possible.
- ❖ Reconcile utility invoices with meter readings.
- ❖ Reconcile fuel purchase data with consumption records.
- ❖ Check abnormal year-on-year variations.
- ❖ Verify units of measurement.
- ❖ Review missing data.
- ❖ Maintain evidence for all significant calculations.
- ❖ Obtain supplier data where available.
- ❖ Document assumptions.
- ❖ Maintain version-controlled calculation workbooks.

9.3 Data Management Procedure

GHG data should follow a controlled process:

Data Owner → Collection → Verification → Calculation → Review → Approval → Reporting → Record Retention

Each major emission source should have an assigned data owner.

10. EMISSION FACTORS

10.1 Sources of Emission Factors

Emission factors should be selected from recognized and current sources, including, as applicable:

- ❖ IPCC Guidelines;
- ❖ GHG Protocol;
- ❖ UK Government/DEFRA conversion factors;
- ❖ UAE-specific electricity factors where available;
- ❖ utility-provider factors;
- ❖ supplier-specific emission factors;
- ❖ recognized lifecycle databases; and

❖ internationally recognized transport emission factors.

For electricity, the organization should prioritize an appropriate UAE/Dubai electricity emission factor supported by the relevant electricity authority or recognized reporting source.

10.2 Units and Justification

Activity	Typical Unit	Emission Factor Basis
Diesel	Litres	kgCO ₂ e/litre
LPG	kg	kgCO ₂ e/kg
Natural gas	m ³	kgCO ₂ e/m ³
Refrigerant	kg	kgCO ₂ e/kg refrigerant
Electricity	kWh	kgCO ₂ e/kWh
Road transport	tonne-km / vehicle-km	kgCO ₂ e/km or tonne-km
Air travel	passenger-km	kgCO ₂ e/passenger-km
Raw materials	kg/tonne	kgCO ₂ e/kg or tCO ₂ e/t
Waste	kg/tonne	kgCO ₂ e/kg waste

Important data limitation: The supplied checklist reports aggregate Scope 1, Scope 2 and Scope 3 results but does not provide the individual emission factors used to generate those figures. Therefore, the specific factors should be documented in the controlled GHG calculation workbook before third-party assurance.

11. CALCULATION RESULTS

11.1 TOTAL GHG EMISSIONS

The reported 2025 GHG inventory is:

Scope	Emissions (tCO ₂ e)	% of Total
Scope 1	5,236.26	8.99%
Scope 2	1,786.54	3.07%
Scope 3	51,240.17	87.95%
Total	58,262.97	100%

Total Carbon Footprint

58,262.97 tCO₂e

The total is calculated from the three reported scope values.

11.2 EMISSION BREAKDOWN BY SOURCE

Emission Source	Scope	Emissions
Direct fuel and fugitive sources	Scope 1	5,236.26 tCO ₂ e
Purchased electricity	Scope 2	1,786.54 tCO ₂ e
Upstream value-chain emissions	Scope 3	5,124.02 tCO ₂ e
Downstream value-chain emissions	Scope 3	46,116.15 tCO ₂ e
Total	All Scopes	58,262.97 tCO₂e

Textual Emission Profile

Scope 3 – 87.95%



Scope 1 – 8.99%



Scope 2 – 3.07%



The footprint is therefore strongly influenced by value-chain emissions, particularly downstream activities.

11.3 EMISSION INTENSITY INDICATORS

The checklist identifies **1,130 employees**.

Emissions per Employee

$$58,262.97 \text{ tCO}_2\text{e} \div 1,130 \text{ employees} = 51.56 \text{ tCO}_2\text{e/employee}$$

Therefore:

$$\text{GHG intensity} = 51.56 \text{ tCO}_2\text{e per employee}$$

Production/Revenue Intensity

A production-based intensity indicator should be established after obtaining reliable annual production/sales quantities.

Recommended indicators include:

- tCO₂e per tonne of product;
- tCO₂e per square metre of structure produced;
- tCO₂e per project;
- tCO₂e per AED million revenue;
- tCO₂e per tonne of steel/fabricated product;
- tCO₂e per rental asset deployed.

The supplied checklist requests quantity of finished products sold, but does not provide the numerical quantity.

12. BASE YEAR AND TREND ANALYSIS

12.1 Base Year Selection

The organization has identified 2024 as the baseline year.

The baseline should represent a year for which reliable and sufficiently complete GHG data is available.

12.2 Historical Comparison

The current data sheet provides the 2025 inventory but does not provide corresponding numerical 2024 Scope 1, Scope 2 and Scope 3 emissions.

Accordingly, a quantitative year-on-year reduction percentage should **not** be invented.

The following comparison should be completed when the 2024 inventory is available:

Scope	2024 Baseline	2025	Change
Scope 1	To be inserted	5,236.26	To be calculated
Scope 2	To be inserted	1,786.54	To be calculated
Scope 3	To be inserted	51,240.17	To be calculated
Total	To be inserted	58,262.97	To be calculated

12.3 Organizational Changes

Any significant changes between 2024 and 2025 should be reviewed, including:

- ❖ acquisitions;
- ❖ divestments;
- ❖ new facilities;
- ❖ facility closures;
- ❖ changes in production;
- ❖ changes in rental fleet;
- ❖ changes in logistics;
- ❖ changes in organizational control; and
- ❖ major changes in methodology.

If such changes materially affect comparability, the baseline should be recalculated in accordance with the organization's documented recalculation policy.

13. UNCERTAINTY ASSESSMENT

13.1 Sources of Uncertainty

Potential uncertainty may arise from:

- ❖ incomplete supplier data;
- ❖ estimated transportation distances;
- ❖ employee commuting assumptions;
- ❖ variations in fuel records;
- ❖ refrigerant leakage estimates;
- ❖ emission-factor selection;
- ❖ raw-material emission factors;
- ❖ waste-treatment assumptions;
- ❖ data aggregation; and
- ❖ downstream activity estimates.

13.2 Method for Estimating Uncertainty

The organization should prioritize sources according to their materiality and data quality.

A practical qualitative rating may be used:

Rating	Description
High confidence	Primary measured/invoiced data and reliable emission factor
Medium confidence	Reliable activity data with estimated factor or allocation
Low confidence	Estimated activity data and generic emission factor

13.3 Confidence Level

The current inventory should be considered **reasonable for internal ESG management**, subject to completion of supporting activity-level records and verification of the underlying emission factors.

For external assurance, all significant emission categories should be supported by traceable evidence.

14. DATA QUALITY ASSESSMENT

14.1 Quality Rating

Data Category	Indicative Quality	Improvement Requirement
Scope 1 aggregate	Medium	Maintain source-wise fuel records
Scope 2 aggregate	Medium	Retain utility bills and electricity factors
Scope 3 aggregate	Medium	Improve category-level primary data
Downstream emissions	Medium	Improve logistics and customer data
Employee commuting	Medium/Low	Conduct annual commuting survey
Refrigerants	Medium	Maintain equipment-wise top-up records
Emission factors	To be verified	Document factor source and version

14.2 Cross-Checks and Validations

Recommended validation controls include:

- ❖ Monthly-to-annual reconciliation;
- ❖ invoice-to-consumption reconciliation;
- ❖ meter-to-invoice comparison;
- ❖ fuel purchase-to-fuel usage comparison;
- ❖ logistics distance validation;
- ❖ raw-material quantity reconciliation with procurement;
- ❖ employee count reconciliation with HR;
- ❖ duplicate-data checks;
- ❖ unit-conversion checks; and
- ❖ year-on-year variance analysis.

15. GHG REDUCTION INITIATIVES

15.1 Energy Efficiency Programs

ALBADDAD should prioritize:

1. LED lighting conversion.
2. High-efficiency motors.
3. Variable-frequency drives.
4. HVAC optimization.
5. Preventive maintenance of electrical equipment.
6. Compressed-air leakage reduction.
7. Energy-efficient welding and fabrication equipment.
8. Solar photovoltaic deployment.
9. Renewable electricity procurement.
10. Energy monitoring by facility.

15.2 Fuel Reduction

Actions should include:

- ❖ DG-set efficiency monitoring;
- ❖ vehicle fuel-efficiency monitoring;
- ❖ route optimization;
- ❖ preventive fleet maintenance;
- ❖ reduction of unnecessary idling;
- ❖ transition to lower-carbon vehicles where practical; and
- ❖ electrification of suitable equipment.

15.3 Refrigerant Management

The organization should:

- ❖ maintain an HVAC asset register;
- ❖ identify refrigerant types;
- ❖ monitor refrigerant top-ups;
- ❖ repair leakage promptly;
- ❖ select lower-GWP refrigerants where technically feasible; and
- ❖ ensure responsible recovery during equipment servicing.

15.4 Materials and Circularity

Because Scope 3 is the largest source, material-management measures should receive priority.

Recommended measures include:

- ❖ increased recycled steel;
- ❖ recycled aluminium where feasible;
- ❖ responsible glass sourcing;
- ❖ low-carbon construction materials;
- ❖ supplier environmental assessment;
- ❖ supplier-specific product carbon footprints;

- ❖ material optimization;
- ❖ design for disassembly;
- ❖ reuse of modular components;
- ❖ repair and refurbishment;
- ❖ increased recycling; and
- ❖ reduction of material wastage.

15.5 Logistics Optimization

The organization should:

- ❖ optimize delivery routes;
- ❖ consolidate shipments;
- ❖ improve vehicle loading;
- ❖ reduce empty return journeys;
- ❖ increase local sourcing where practical;
- ❖ select lower-emission logistics providers;
- ❖ monitor tonne-km;
- ❖ use digital logistics planning; and
- ❖ evaluate lower-carbon transport modes.

15.6 Future Sustainability Goals

Recommended future targets include:

- ❖ reduction in Scope 1 emissions;
- ❖ reduction in Scope 2 market-based emissions;
- ❖ increased renewable electricity;
- ❖ reduction in energy intensity;
- ❖ reduction in fuel intensity;
- ❖ increased recycled-material content;
- ❖ reduction in waste-to-landfill;
- ❖ supplier carbon-data coverage;
- ❖ lower transport emissions; and

16. CONCLUSIONS

16.1 Summary of GHG Performance

For the January–December 2025 reporting period, ALBADDAD reports total GHG emissions of:

58,262.97 tCO₂e

The distribution is:

- ❖ **Scope 1:** 5,236.26 tCO₂e;
- ❖ **Scope 2:** 1,786.54 tCO₂e;
- ❖ **Scope 3:** 51,240.17 tCO₂e.

Scope 3 represents approximately **87.95%** of the total footprint and should therefore be the primary focus of the organization's long-term decarbonization strategy.

16.2 Successes and Opportunities

The organization has established a consolidated GHG inventory covering all three scopes.

The most significant opportunities are:

- ❖ value-chain decarbonization;
- ❖ low-carbon materials;
- ❖ logistics optimization;
- ❖ renewable electricity;
- ❖ energy efficiency;
- ❖ fleet efficiency;
- ❖ refrigerant management;
- ❖ supplier engagement; and
- ❖ circular use of modular structures and materials.

16.3 Plan for Next Reporting Period

For the next reporting period, ALBADDAD should:

1. Establish monthly GHG data collection.
2. Maintain facility-wise energy data.
3. Maintain fuel-wise Scope 1 records.
4. Record refrigerants by type and quantity.
5. Improve Scope 3 category-level data.
6. Obtain supplier-specific emission factors.
7. Improve transportation data.
8. Conduct an employee commuting survey.
9. Establish production/revenue-based intensity indicators.
10. Compare 2026 performance against the 2024 baseline.
11. Establish quantified GHG reduction targets.
12. Conduct an internal GHG data verification.
13. Prepare evidence files for external assurance where required.

17. APPENDICES

Appendix A – Activity Data Register

Data Category	Required Data	Source/Record
DG diesel	Litres	Fuel register/invoices
Furnace oil	Litres	Fuel records
LPG/Propane	kg/cylinders	Purchase records
Natural gas	m ³	Utility records
Company vehicles	Litres	Fleet/fuel records
Refrigerants	kg/type	HVAC service records

Electricity	kWh	Utility bills/meters
Raw materials	kg/MT	Procurement/ERP
Packaging	kg/MT	Procurement/warehouse
Employee commuting	km/day	Employee survey
Upstream transport	km/tonne-km	Logistics records
Downstream transport	km/tonne-km	Dispatch/logistics
Finished products sold	quantity	Sales/ERP
Waste	tonnes by type	Waste manifests
Business travel	passenger-km	Travel records

The supplied checklist includes the corresponding Scope 1 fuel/refrigerant categories and Scope 3 raw-material, packaging, commuting, transport and finished-product data fields.

Appendix B – Reported GHG Results

Parameter	2025 Result
Scope 1	5,236.26 tCO ₂ e
Location-based Scope 2	1,786.54 tCO ₂ e
Market-based Scope 2	1,786.54 tCO ₂ e
Scope 3	51,240.17 tCO ₂ e
Upstream Scope 3	5,124.02 tCO ₂ e
Downstream Scope 3	46,116.15 tCO ₂ e
Total GHG Emissions	58,262.97 tCO₂e
Employees	1,130
Emissions per employee	51.56 tCO ₂ e/employee

The underlying Scope 2 and Scope 3 values are reported in the supplied data collection checklist.

Appendix C – GHG Calculation Formula

General formula:

GHG Emissions = Activity Data × Emission Factor × GWP

For each source, the calculation workbook should record:

- ❖ Source;
- ❖ Activity data;
- ❖ Unit;
- ❖ Emission factor;
- ❖ Emission-factor source;
- ❖ GWP;
- ❖ Calculated kgCO₂e;
- ❖ Calculated tCO₂e;
- ❖ Data owner;
- ❖ Evidence reference;
- ❖ Review status.

Appendix D – Definitions and Abbreviations

Term	Definition
GHG	Greenhouse Gas
CO ₂	Carbon Dioxide
CH ₄	Methane
N ₂ O	Nitrous Oxide
HFC	Hydrofluorocarbon
CO ₂ e	Carbon Dioxide Equivalent
GWP	Global Warming Potential
Scope 1	Direct GHG emissions
Scope 2	Indirect emissions from purchased energy

Scope 3	Other indirect value-chain emissions
ISO	International Organization for Standardization
ESG	Environmental, Social and Governance
DG	Diesel Generator
HVAC	Heating, Ventilation and Air Conditioning
JAFZA	Jebel Ali Free Zone Authority
ERP	Enterprise Resource Planning

Appendix E – Reference Standards

The GHG inventory should be maintained with reference to:

1. **UK Government GHG Conversion Factors for Company Reporting (DESNZ/DEFRA)** – Used for fuels, electricity, transportation, business travel, waste, and other applicable emission sources. [UK Government GHG Conversion Factors](#)
2. **IPCC Emission Factor Database (EFDB)** – Internationally recognized source of emission factors for energy, industrial processes, waste, and other relevant activities. [IPCC Emission Factor Database](#)
3. **IPCC 2006 Guidelines for National GHG Inventories** – Used for relevant emission-factor and Global Warming Potential (GWP) methodologies. [IPCC 2006 Guidelines](#)
4. **US EPA GHG Emission Factors Hub** – Provides recognized emission factors for stationary combustion, mobile sources, purchased electricity, and other relevant activities. [US EPA GHG Emission Factors Hub](#)
5. **GHG Protocol Calculation Tools and Guidance** – Provides calculation methodologies and emission factors for corporate Scope 1, Scope 2, and Scope 3 emission sources. [GHG Protocol Calculation Tools](#)
6. **DEWA Electricity Emission-Factor Information** – Used where applicable for Dubai electricity consumption and location-based Scope 2 emissions. DEWA Integrated Reports
7. **UAE Government Environmental and Climate Data** – Used where applicable for UAE-specific environmental, energy, and greenhouse-gas reporting requirements. [UAE Ministry of Climate Change and Environment](#)

ACKNOWLEDGEMENT OF RECEIPT

I confirm that I have received and reviewed this GHG Emission Report and understand my responsibility to comply with applicable requirements.

Name : Don Wisely Rasalian

Designation : HSE Engineer

Signature : 

Date : 04th February, 2025

