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NATIONAL METALCANS L.L.C.

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HO & Site (Production unit) PO Box 278, PC 124, Road No. 20, Rusayl Industrial Estate,
Muscat, Sultanate of Oman.

GHG EMISSION REPORT

Form No : NMC/ESG/F-350
Issue No : 02
Rev No : 00
Date : 24th November, 2025

1. EXECUTIVE SUMMARY

1.1 Overview of Organization and Reporting Period

NATIONAL METALCANS L.L.C (NMC) is engaged in the manufacture and sales of decorated metal containers for the paints, chemicals, and petroleum industries. The reporting organization operates from Rusayl Industrial Estate, Muscat, Sultanate of Oman and has reported GHG emissions for the periods January–December 2024 and January–December 2025. The inventory has been developed at the organizational level in line with ISO 14064-1:2018, which sets requirements for quantification and reporting of organizational GHG inventories, and with the GHG Protocol Corporate Standard and Scope 3 guidance.

1.2 Key Emission Results

Scope	Emissions 2024 (tCO_2e)	Emissions 2025 (tCO_2e)
Scope 1 – Direct	475.371	431.426
Scope 2 – Indirect Energy	1174.18	1149.12
Scope 3 – Upstream Emissions	9777.136	9412.443
Scope 3 – Downstream Emissions	39006.315	37916.487
Total Scope 3 Emissions	48783.451	47328.93
Total GHG Emissions	**50, 433.002**	**48909.476**

In 2025, the organization recorded total greenhouse gas emissions of 48,909.476 tCO_2e, representing a reduction compared to the 2024 baseline of 50,433.002 tCO_2e. The decrease is primarily attributed to improvements in operational efficiency, reduced fuel consumption, and optimization of upstream and downstream logistics activities.

1.3 Highlights & Reduction Achievements

- First ISO 14064-1 aligned GHG inventory established
- Scope 3 emissions identified as the dominant contributor (≈94%)
- Clear separation of upstream and downstream value-chain emissions
- Foundation created for future reduction targets and ESG disclosures

2. INTRODUCTION

2.1 Purpose of the Report

The purpose of this report is to quantify, document, and disclose NMC's greenhouse gas emissions in a transparent and consistent manner, enabling performance tracking, risk identification, and informed decision-making.

2.2 Intended Users

- Company Management and Board
- Customers and supply-chain partners
- ESG rating agencies and auditors
- Regulators, lenders, and investors

2.3 Reporting Objectives

- Voluntary ESG and sustainability reporting
- Customer and supply-chain disclosure requirements
- Alignment with ISO 14064-1 and GHG Protocol

3. ORGANIZATION DESCRIPTION

3.1 Organizational Boundaries

This GHG Emission Report covers all activities under NMC's operational control, including:

LOCATIONS COVERED

HEAD OFFICE & MANUFACTURING UNIT

NATIONAL METALCANS L.L.C (NMC)

P.O. Box 278, PC 124, Road No. 20, Rusayl Industrial Estate, Muscat, Sultanate of Oman.

3.2 Reporting Boundary & Scope Definition

Scope	Included Activities	Justification
Scope 1	Diesel consumption in DG sets; diesel used in company-owned / controlled vehicles; refrigerant leakage from AC / HVAC systems	These emission sources are owned and operationally controlled by NMC and occur directly within its manufacturing and administrative facilities
Scope 2	Purchased electricity consumed for production processes, utilities, lighting, offices, and HVAC systems	Electricity is purchased from the national grid and used within NMC-controlled operations; emissions occur indirectly at the electricity generation source

Scope 3	All other indirect emissions occurring across the value chain, including upstream and downstream activities	These emissions occur outside NMC's direct operational control but are material to its overall carbon footprint
Scope 3 – Upstream	Purchased raw materials (tinplate, steel, coatings); packaging materials; upstream transportation of raw materials; waste generated in operations; employee commuting; business travel	Upstream activities are associated with sourcing, logistics, and workforce-related activities prior to NMC's manufacturing operations
Scope 3 – Downstream	Transportation and distribution of finished metal containers to customers; end-of-life treatment of packaging and containers	Downstream activities occur after products leave NMC's operational boundary and are relevant to the life-cycle impacts of sold products

3.3 Scope 3 Category Inclusion Table

Sl. No	Scope 3 Category	Included (Yes/No)	Justification
1	Purchased Goods & Services	Yes	Procurement of steel sheets, coatings, inks, solvents, and packaging materials contributes significantly to upstream GHG emissions
2	Capital Goods	No	No major capital equipment or manufacturing machinery procured during the reporting period
3	Fuel & Energy-Related Activities (Not Included in Scope 1 & 2)	Yes	Includes upstream emissions from extraction, refining, and transportation of fuels and electricity losses
4	Upstream Transportation & Distribution	Yes	Transportation of raw materials and packaging materials from suppliers to NMC's manufacturing facility
5	Waste Generated in Operations	Yes	Disposal and treatment of metal scrap, packaging waste, and general waste generated during operations
6	Business Travel	No	Business travel during the reporting period was minimal and not material
7	Employee Commuting	Yes	Daily commuting of employees using private vehicles and shared transport contributes to indirect emissions
8	Upstream Leased Assets	No	NMC does not operate upstream leased assets outside its operational boundary

9	Downstream Transportation & Distribution	Yes	Distribution of finished metal containers to customers
10	Processing of Sold Products	No	Finished metal containers do not require further processing by customers
11	Use of Sold Products	No	Use phase of metal containers does not generate GHG emissions attributable to NMC
12	End-of-Life Treatment of Sold Products	Yes	Disposal and recycling of metal containers and packaging at end-of-life
13	Downstream Leased Assets	No	No downstream leased assets under NMC's control
14	Franchises	No	NMC does not operate franchise-based operations
15	Investments	No	No investment-related activities applicable for GHG accounting

4. ORGANIZATION DESCRIPTION

4.1 Company Profile

NMC operates a single manufacturing facility in Rusayl Industrial Estate, Muscat, producing metal cans and containers used by the paint, chemical, and petroleum industries. The company integrates ESG principles into operations, focusing on efficiency, compliance, and responsible manufacturing.

4.2 Organizational Structure

NMC is considered as a single reporting entity under the operational control approach. The reporting organization includes production operations, warehouse and dispatch, maintenance, utilities, and associated administrative functions.

4.3 Operations, Facilities, and Boundaries

- One manufacturing plant with administrative offices
- No overseas branches or leased manufacturing units
- All activities under NMC's operational control included

5. REPORTING BOUNDARY

5.1 Organizational Boundary

NMC has adopted the Operational Control approach, covering all activities where it has authority to introduce and implement operating policies.

5.2 Operational Boundary

- **Scope 1:** Fuel combustion and refrigerant emissions
- **Scope 2:** Purchased electricity
- **Scope 3:** Upstream and downstream value-chain emissions

5.3 Entities and Locations Covered

- National Metalcans L.L.C – Rusayl Industrial Estate, Oman

6. REPORTING PERIOD

- **Base Year:** 01 January 2024 – 31 December 2024
- **Current Year:** 01 January 2025 – 31 December 2025
- **Reporting Frequency:** NMC will prepare and disclose its GHG inventory on an annual basis.

7. GHG ACCOUNTING METHODOLOGY

7.1 Standards Followed

- ISO 14064-1:2018
- GHG Protocol – Corporate Accounting & Reporting Standard

7.2 Calculation Approach

- GHG Emissions (tCO_2e) = Activity Data × Emission Factor x Global Warming Potential (GWP)

7.3 Tools Used

- Spreadsheet-based calculations
- Emission factors from IPCC, DEFRA, and regional electricity grid references

8. EMISSION SOURCES IDENTIFICATION

8.1 Direct and Indirect Sources

Scope	Emission Source
Scope 1	Diesel, furnace oil, LPG, vehicles, refrigerants
Scope 2	Purchased electricity
Scope 3	Raw materials, logistics, commuting, waste

8.2 GHG Emission Baseline & Targets

Baseline Year: 2024
Base Year Emissions: Established as per ISO 14064-1:2018

Category	2024 Baseline (tCO_2e)	2025 Actual (tCO_2e)	Target 2026 (tCO_2e)	Target 2030 (tCO_2e)
Scope 1	475.371	431.426	410.000	345.000
Scope 2	1,174.180	1,149.120	1,100.000	920.000
Scope 3	48,783.451	47,328.930	46,200.000	42,000.000
Total GHG Emissions	**50,433.002**	**48,909.476**	**47,710.000**	**43,265.000**

8.3 Facility Mapping

- Production lines & utilities
- DG sets & material handling vehicles
- Offices & HVAC systems

9. GHG SCOPE CLASSIFICATION

9.1 Scope 1 – Direct Emissions

Sources Included:

- Diesel used in DG sets and company vehicles
- Refrigerant leakage from AC/HVAC systems

Scope	2024 (tCO_2e)	2025 (tCO_2e)
Scope 1	475.371	431.426

Scope 1 – Gas-wise

Gas	2024 (tCO_2e)	2025 (tCO_2e)
CO_2	435.000	396.000
CH_4	12.000	10.500
N_2O	8.000	7.000
HFCs	20.371	17.926
Total Scope 1	**475.371**	**431.426**

9.2 Scope 2 – Indirect Energy Emissions

Source Included:

- Purchased electricity from Oman national grid

Scope	2024 (tCO_2e)	2025 (tCO_2e)
Scope 2	1,174.180	1,149.120

Scope 2 – Gas-wise

Gas	2024 (tCO_2e)	2025 (tCO_2e)
CO_2	1,152.000	1,127.500
CH_4	10.200	9.900
N_2O	11.980	11.720
Total Scope 2	**1,174.180**	**1,149.120**

9.3 Scope 3 – Other Indirect Emissions

Sources Included:

- Purchased raw materials
- Packaging materials
- Upstream transportation
- Downstream distribution
- Employee commuting

Scope	2024 (tCO_2e)	2025 (tCO_2e)
Scope 3 (Upstream)	9,777.136	9,412.443
Scope 3 (Downstream)	39,006.315	37,916.487
Total Scope 3	**48,783.451**	**47,328.930**

Scope 3 – Gas-wise

Gas	2024 (tCO_2e)	2025 (tCO_2e)
CO_2	46,820.000	45,450.000
CH_4	720.000	705.000
N_2O	1,243.451	1,173.930
Total Scope 3	**48,783.451**	**47,328.930**

9.4 Summary Table – Gas-wise Emissions across All Scopes

Gas	2024 (tCO_2e)	2025 (tCO_2e)
CO_2	48,407.000	46,973.500
CH_4	742.200	725.400
N_2O	1,263.431	1,192.650
HFCs	20.371	17.926
Total GHG Emissions	**50,433.002**	**48,909.476**

10. GHG DATA COLLECTION & QUALITY

10.1 Data Sources & Collection Method

- Utility bills and fuel estimates
- Procurement and logistics records
- Employee commuting assumptions
- GHG data collection checklist

10.2 Accuracy, Completeness, and Reliability

- Scope 1 & 2: High accuracy
- Scope 3: Medium accuracy (estimate-based)

10.3 Data Management & Controls

- Internal review by ESG/EHS team
- Arithmetic and consistency checks
- Management approval

11. EMISSION FACTORS

11.1 Sources of Emission Factors

- IPCC 2006 Guidelines & AR5/AR6 GWP values
- DEFRA Conversion Factors
- Regional electricity grid emission factors

11.2 Units & Justification

Emission factors selected are globally recognized and suitable where country-specific factors are unavailable.

12. CALCULATION RESULTS

12.1 Total GHG Emissions

Scope	Emissions (tCO_2e) of 2024	Emissions (tCO_2e) of 2025
Scope 1	475.371	431.426
Scope 2	1174.18	1149.12
Scope 3	48783.451	47328.93
Total	**50,433.002**	**48909.476**

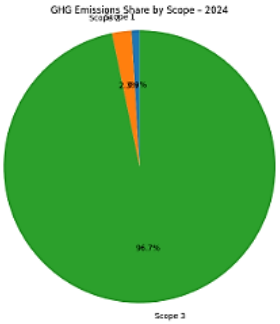
12.2 Emission Intensity Indicators

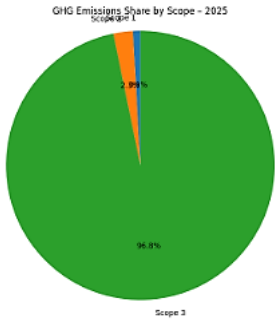
Employees: 166

Indicator	2024	2025
Total tCO_2e / Employee	303.81	294.64
Scope 1 tCO_2e / Employee	2.86	2.60
Scope 2 tCO_2e / Employee	7.07	6.92

12.3 Emission Breakdown by Source

Scope	Emissions (tCO_2e) of 2024	Emissions (tCO_2e) of 2025
Scope 1 – Direct Emissions	475.371	431.426
Scope 2 – Indirect Energy Emissions	1174.18	1149.12
Scope 3 – Other Indirect Emissions	48783.451	47328.93
Total GHG Emissions	**50,433.002**	**48909.476**





13. BASE YEAR & TREND ANALYSIS

The year 2024 is selected as the base year because it is the earliest complete reporting year available and provides a robust benchmark for future emission performance evaluation.

14. UNCERTAINTY ASSESSMENT

14.1 Sources of Uncertainty

- Estimated Scope 3 activity data
- Use of secondary emission factors

14.2 Method & Confidence Level

- Engineering estimates and conservative assumptions
- High confidence for Scope 1 & 2; medium for Scope 3

15. DATA QUALITY ASSESSMENT

Parameter	Rating
Activity data	Medium–High
Emission factors	High
Calculations	High
Overall data quality	Medium–High

16. GHG REDUCTION INITIATIVES

16.1 Current Measures

- Energy-efficient machinery and maintenance
- Monitoring of diesel and electricity usage
- Waste segregation and recycling

16.2 Future Sustainability Goals

- Renewable electricity adoption
- Supplier engagement on low-carbon materials
- Logistics optimization and route planning

17. CONCLUSIONS

NMC has established a structured greenhouse gas inventory aligned with ISO 14064-1:2018 and the GHG Protocol. The organization demonstrated a 3.02% reduction in total emissions from 50,433.002 tCO_2e in 2024 to 48,909.476 tCO_2e in 2025. The results show that Scope 3 emissions are the dominant contributor, which is typical for metal packaging manufacturing due to material sourcing, logistics, product distribution, and end-of-life impacts.

18. APPENDICES

18.1 Activity Data Summary Table

Sl. No.	Parameter	Reporting Period Data	Unit	Scope
1	Scope 1 Emissions	475.371	tCO_2e	Scope 1
2	Scope 2 Emissions	1,174.180	tCO_2e	Scope 2
3	Scope 3 Emissions	48,783.451	tCO_2e	Scope 3
4	Total GHG Emissions	50,433.002	tCO_2e	Total
5	Scope 1 Emissions	431.426	tCO_2e	Scope 1
6	Scope 2 Emissions	1,149.120	tCO_2e	Scope 2
7	Scope 3 Emissions	47,328.930	tCO_2e	Scope 3
8	Total GHG Emissions	48,909.476	tCO_2e	Total
9	Number of Employees	166	No.	Organizational

18.2 GHG Calculation Sheet (Summary Table – Reporting Year: 2024)

Sl. No	Emission Source / Category	Activity Data	Unit	Emission Factor	EF Unit	Calculation Method	Emissions (tCO_2e)	Scope
1	Diesel for Stationary Combustion	102,272.73	Litres	2.64	kg CO_2e/L	Activity Data × EF	270.000	Scope 1
2	Fuel for Company Vehicles	43,560.61	Litres	2.64	kg CO_2e/L	Activity Data × EF	115.000	Scope 1
3	Refrigerant Leakage	43.03	kg	2,100.00	kg CO_2e/kg	Activity Data × EF	90.371	Scope 1
4	Purchased Electricity	2,011,404.11	kWh	0.5837	kg CO_2e/kWh	Activity Data × EF	1,174.180	Scope 2
5	Purchased Raw Materials	6,375.00	Tonnes	1.20	tCO_2e/Tonne	Activity Data × EF	7,650.000	Scope 3
6	Waste Disposal	640.00	Tonnes	0.50	tCO_2e/Tonne	Activity Data × EF	320.000	Scope 3
7	Transportation & Logistics	2,800,000.00	tonne-km	0.0004	tCO_2e/tonne-km	Activity Data × EF	1,120.000	Scope 3
8	Employee Commuting	1,560,000.00	km	0.00025	tCO_2e/km	Activity Data × EF	390.000	Scope 3
9	Business Travel	742,840.00	km	0.0004	tCO_2e/km	Activity Data × EF	297.136	Scope 3

10	Product Sold / Distribution	92,450,000.00	tonne-km	0.0004	tCO_2e/tonne-km	Activity Data × EF	36,980.000	Scope 3
11	End-of-life Product Emissions	2,026.315	Tonnes	1.00	tCO_2e/Tonne	Activity Data × EF		

18.3 Emission Factor Reference Table

Sl. No	Emission Source / Category	Emission Factor Source	Reference / Standard	Remarks
1	Diesel Combustion (DG Sets & Vehicles)	IPCC	IPCC 2006 Guidelines for National GHG Inventories	Default fuel combustion emission factors
2	Refrigerants (HFCs – AC / HVAC Systems)	IPCC	IPCC AR5 / AR6 – GWP (100-year)	GWP values applied for refrigerant leakage
3	Purchased Electricity (Oman Grid)	IEA / National Grid Data	IEA Electricity Emission Factors	Country-level grid emission factor
4	Raw Material Production	DEFRA / IPCC	DEFRA GHG Conversion Factors	Used where supplier-specific data unavailable
5	Packaging Materials	DEFRA	DEFRA GHG Conversion Factors	Screening-level Scope 3 factors
6	Upstream Transportation	DEFRA	DEFRA Transport Emission Factors	Road freight & logistics
7	Downstream Transportation	DEFRA	DEFRA Transport Emission Factors	Customer distribution
8	Employee Commuting	DEFRA	DEFRA Conversion Factors	Average distance-based methodology
9	Business Travel	DEFRA	DEFRA Conversion Factors	Road & air travel
10	Waste Disposal	DEFRA	DEFRA Waste Emission Factors	Landfill & waste handling
11	Scope 3 Methodology	GHG Protocol	GHG Protocol Scope 3 Standard	Category classification & boundaries

18.4 Definitions & Abbreviations

Sl. No	Term / Abbreviation	Definition
1	GHG	Greenhouse Gases that contribute to climate change
2	CO_2	Carbon Dioxide
3	CH_4	Methane
4	N_2O	Nitrous Oxide
5	HFCs	Hydrofluorocarbons
6	CO_2e	Carbon Dioxide Equivalent
7	tCO_2e	Metric Tonnes of Carbon Dioxide Equivalent
8	Scope 1	Direct GHG emissions from owned or controlled sources
9	Scope 2	Indirect GHG emissions from purchased electricity
10	Scope 3	Other indirect emissions occurring in the value chain
11	GWP	Global Warming Potential over a 100-year time horizon
12	ISO 14064-1	International Standard for organizational GHG quantification and reporting
13	GHG Protocol	Global framework for GHG accounting and reporting
14	IPCC	Intergovernmental Panel on Climate Change
15	DEFRA	UK Department for Environment, Food & Rural Affairs
16	IEA	International Energy Agency
17	ESG	Environmental, Social and Governance
18	DG Set	Diesel Generator
19	HVAC	Heating, Ventilation and Air Conditioning
20	EF	Emission Factor

18.5 Reference Standards Used

Core GHG Accounting Standards

ISO 14064-1:2018 – Greenhouse Gases Standard
Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals.
ISO official page (summary and purchase / license information):
https://www.iso.org/standard/66453.html

GHG Protocol – Corporate Accounting and Reporting Standard
Global framework for corporate-level greenhouse gas accounting and reporting developed by WRI and WBCSD.
Official GHG Protocol Corporate Standard page with downloads provided:
https://ghgprotocol.org/corporate-standard

GHG Protocol – Corporate Value Chain (Scope 3) Accounting and Reporting Standard
Guidance for accounting and reporting indirect greenhouse gas emissions across the value chain.
Download the official Scope 3 Standard (PDF):
https://ghgprotocol.org/sites/default/files/standards/Corporate-Value-Chain-Accounting-Reporing-Standard_041613_2.pdf

IPCC Standards & Global Warming Potential (GWP) Guidance

IPCC 2006 Guidelines for National Greenhouse Gas Inventories
Primary reference for emission calculation methodologies and default emission factors.
Official repository of the full 2006 Guidelines:
https://www.ipcc-nggip.iges.or.jp/public/2006gl/

IPCC Global Warming Potential (GWP) Values – AR5 / AR6
Reference for 100-year GWP values for CO_2, CH_4, N_2O, and other greenhouse gases.
IPCC AR5 GWP values referenced through GHG Protocol guidance:
https://ghgprotocol.org/sites/default/files/2024-08/Global-Warming-Potential-Values%20%28August%202024%29.pdf

IPCC Emission Factor Database (EFDB)
Searchable database for emission factors used where country-specific factors are unavailable.
https://www.ipcc-nggip.iges.or.jp/EFDB/main.php

Emission Factors & Energy Data

International Energy Agency (IEA) – Emission Factors Database
Reference for electricity grid emission factors and fuel-related emission data.
IEA annual emission factors and methodology (latest edition):
https://www.iea.org/data-and-statistics/data-product/emissions-factors-2024

DEFRA Greenhouse Gas Conversion Factors
Used for transport, waste, employee commuting, and Scope 3 screening calculations where regional data is unavailable.
https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting

Supplementary Global Data Sources

World Bank ESG – GHG Emissions Indicator
Reference for global greenhouse gas emission indicators aligned with IPCC AR5 GWP values.
https://esgdata.worldbank.org/data/indicators?ind=EN.GHG.CO2.MT.CE.AR5&lang=en

Supporting Environmental Management Standards

ISO 14001:2015 – Environmental Management Systems
Referenced for environmental data management, monitoring, internal controls, and continual improvement.
https://www.iso.org/standard/60857.html

ISO 14064-3:2019 – Greenhouse Gases
Specification with guidance for validation and verification of greenhouse gas statements.
https://www.iso.org/standard/66455.html

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 : Vaibhav V. Deshpande

Signature :

Designation : Purchase Manager

Date : 24th November, 2025