# GHG Emissions Calculator

Track Scope 1 & 2 emissions using NGER methodology

Version 3.3 - Enhanced Edition with Fixed PDF Export

*Based on the ILMA GHG Calculator model, adapted with permission for Australian facilities.*

### ⚠️ Important Disclaimer

This calculator is provided by the Australian Lubricant Association (ALA) as a general guide only. While ALA has endeavoured to ensure accuracy, it makes no warranties and accepts no liability for the accuracy, completeness, or reliability of calculations. Users are responsible for verifying all data and calculations for their specific circumstances. This tool should not replace professional advice or official reporting requirements.

### 🔒 Your Data is Secure

This calculator operates entirely in your web browser. No data is transmitted to ALA or any external servers. All calculations happen locally on your computer, and your data remains completely private. When you close this page, no trace of your data remains.

## Facility Information

Facility Name *

Valorem Chemicals Pty Ltd

Location (State/Territory) *

New South Wales/ACT

Reporting Period *

Financial Year (Jul-Jun)

Reporting Year *

2025

### Production Metrics (Optional)

Total Annual Production

0 tonnes

Emissions Intensity

**0 kg $CO_2e$/tonne**

Calculated automatically when production data is entered

## Contact Information

Name

Mark

Position

Managing Director

Email

marka@valorem.com.au

Phone

0417 725 006

## Monthly Activity Data

## Monthly Activity Data - All Sources

| Month | Scope 1 - Direct Emissions | | | | | | | | | Scope 2 | | Total (t $CO_2e$) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Gas ($m^3$) | D-Gen (L) | W.Oil (L) | D-Veh (L) | Petrol (L) | LPG (L) | Refrig (kg) | $CO_2F$ (kg) | Weld (kg) | Elec (kWh) | Steam (GJ) | |
| Jul | 5,000 | 5,000 | 0 | 7,700 | 3,456 | 0 | 0 | 0 | 0 | 67,650 | 0 | 98.5 |
| Aug | 5,000 | 5,000 | 0 | 9,000 | 6,543 | 0 | 0 | 0 | 0 | 87,650 | 0 | 123 |
| Sep | 5,000 | 5,000 | 0 | 7,655 | 2,345 | 0 | 0 | 0 | 0 | 78,780 | 0 | 103 |
| Oct | 5,000 | 5,000 | 0 | 3,456 | 5,432 | 0 | 0 | 0 | 0 | 66,809 | 0 | 91.1 |
| Nov | 5,000 | 5,000 | 0 | 8,765 | 5,454 | 0 | 0 | 0 | 0 | 87,654 | 0 | 120 |
| Dec | 5,000 | 5,000 | 0 | 9,870 | 6,565 | 0 | 0 | 0 | 0 | 73,450 | 0 | 116 |
| Jan | 5,000 | 5,000 | 0 | 4,567 | 7,575 | 0 | 0 | 0 | 0 | 67,890 | 0 | 99.9 |
| Feb | 5,000 | 5,000 | 0 | 7,654 | 6,545 | 0 | 0 | 0 | 0 | 78,640 | 0 | 113 |
| Mar | 5,000 | 5,000 | 0 | 7,766 | 7,464 | 0 | 0 | 0 | 0 | 86,540 | 0 | 121 |
| Apr | 5,000 | 5,000 | 0 | 8,888 | 5,678 | 0 | 0 | 0 | 0 | 76,670 | 0 | 113 |
| May | 5,000 | 5,000 | 0 | 5,578 | 5,321 | 0 | 0 | 0 | 0 | 73,900 | 0 | 101 |
| Jun | 5,000 | 5,000 | 0 | 9,876 | 6,754 | 0 | 0 | 0 | 0 | 83,210 | 0 | 123 |
| **Total** | **60,000** | **60,000** | **0** | **90,775** | **69,132** | **0** | **0** | **0** | **0** | **928,843** | **0** | **1,323** |

# Emission Reduction Initiatives

Track your sustainability initiatives and their impact on emissions.

## Renewable Energy & Offsets

### Scope 2 Reporting Method

◉ Location-based ○ Market-based

Solar Generation

0 kWh/year

Green Power Purchase

0 %

Renewable Energy Certificates (RECs)

0 MWh

Carbon Offsets

0 t $CO_2e$

Carbon Neutral Energy Purchase

0 %

## Material & Process Efficiency

Electric Forklifts

Number of units

Energy Efficiency Projects

Estimated annual savings GJ/year

Waste Heat Recovery

Energy recovered GJ/year

## Additional Sustainability Notes

Describe any other emission reduction initiatives, energy management systems, or sustainability practices implemented at your facility...

### Estimated Emission Reductions

From Renewable Energy:
**0 t $CO_2e$**

From Efficiency Projects:
**0 t $CO_2e$**

Total Reductions:
**0 t $CO_2e$**

## Annual Emissions Summary

Scope 1 Emissions
**691 t $CO_2e$**

Scope 2 Emissions
**Location-based: 632 t $CO_2e$**

Total Emissions
**Location-based: 1,323 t $CO_2e$**

Direct fuel combustion

**Market-based: 632 t $CO_2e$**

Purchased electricity

**Market-based: 1,323 t $CO_2e$**

Scope 1 + Scope 2

## Methodology Comparison (Annual Totals)

| Metric | Location-based | Market-based |
|---|---|---|
| Scope 2 Emissions (t $CO_2e$) | 632 | 632 |
| Total Emissions (t $CO_2e$) | 1,323 | 1,323 |

### Net Emissions (After Reductions & Offsets)

**1,323 t $CO_2e$**

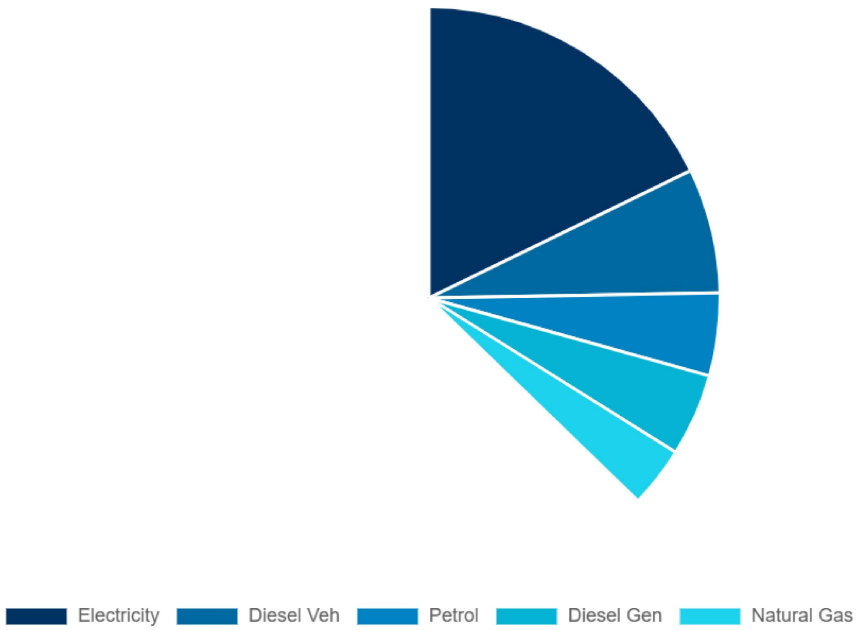
Total emissions minus renewable energy, efficiency savings, and carbon offsets

### Emissions Intensity

**0 kg $CO_2e$/tonne**

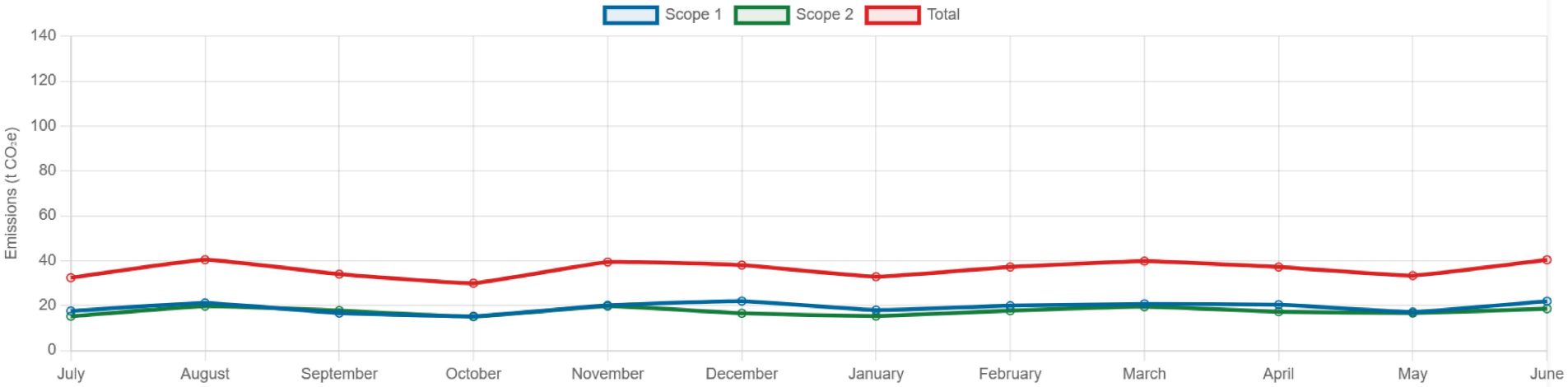
Per tonne of lubricant produced

## Emissions by Source





## Monthly Emissions Trend



## Detailed Emissions Breakdown

| Energy Source | Category | Annual Consumption | Energy Content (GJ) | Emissions (t $CO_2e$) |
|---|---|---|---|---|
| Natural Gas | Stationary | 60,000 $m^3$ | 2,316 | **120** |
| Diesel Gen | Stationary | 60,000 L | 2,316 | **163** |
| Diesel Veh | Mobile | 90,775 L | 3,504 | **246** |
| Petrol | Mobile | 69,132 L | 2,364 | **163** |
| Electricity | Purchased | 928,843 kWh | 3,344 | **632** |
| **Total** | | - | **13,844** | **1,323** |

# Executive Summary

Valorem Chemicals Pty Ltd

GHG Emissions Report - FY 2025

### Scope 1 Emissions

**691**

tonnes $CO_2e$

### Scope 2 Emissions

**Location-based: 632**

**Market-based: 632**

tonnes $CO_2e$

### Total Emissions

**Location-based: 1,323**

**Market-based: 1,323**

tonnes $CO_2e$ (gross)

## Key Findings

- Direct emissions (Scope 1) account for 52.2% of total emissions
- Indirect emissions (Scope 2) from purchased electricity represent 47.8% of total emissions
- The facility's carbon intensity reflects the NSW electricity grid emission factor

This report was generated using the Australian Lubricant Association GHG Emissions Calculator, aligned with NGER methodologies and emission factors.

**Australian Lubricant Association**

GHG Emissions Calculator for Lubricant Blending Facilities

This calculator applies Australian NGER methodologies and emission factors.
Based on the ILMA GHG Calculator model, adapted with permission for Australian facilities.
NGER factors published 1 July 2023