GANDHAR COALS & MINES PRIVATE LIMITED

HEAD OFFICE

18th Floor, DLH Park, Ramlal Compound, Opp goregaon Telephone exchange, Goregaon West, Mumbai Suburban, Maharashtra, 400062

BRANCH OFFICE

VISAKHAPATNAM

Flat No. 501, 4th Floor, 'C' Scape Apartment, Plot No. MIG – I, TS No. 1009, Block No. 39,RK Beach Road, Pandurangapuram, Visakhapatnam, Andhra Pradesh – 530003

SURAT

505, Rajhans Montesa, Dumas Road, Surat, Gujarat - 395017

GHG EMISSION REPORT

FORM NO: GCMPL/ESG/F-700

ISSUE NO: 01

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Prepared By	Reviewed By	Approved By
Account Manager	Account Manager	Sr. Vice President Marketing
Nirmal Ranjan	Manas Ranjan Bavi	Vaddadi Bhanoj

1. Executive Summary

Overview of Organization & Reporting Period

GANDHAR COALS & MINES PRIVATE LIMITED (GCMPL) is an India-based trading company engaged in coal and rice husk supply. The reporting period covers **January 2025 to December 2025**, with 2025 as the baseline year.

Key Emission Results

- Scope 1 Emissions: 15.6 tCO_2e
- Scope 2 Emissions: 10.1 tCO_2e
- Total (Scope 1 + 2): 25.7 tCO_2e
- Number of Employees: 25

Highlights & Reduction Achievements (Scope 3 – Qualitative Only)

- Supplier engagement for low-carbon sourcing
- Optimization of transport routes
- Increased use of bulk logistics
- Adoption of digital documentation
- Waste minimization practices
- Vendor sustainability screening
- Promotion of shared employee transport
- Reduced business travel through virtual meetings
- Awareness programs for customers on efficient fuel use

2. Introduction

Purpose of the Report

To quantify and disclose GHG emissions in accordance with ISO 14064-1 and the GHG Protocol.

Intended Users

- Management
- Clients & stakeholders
- ESG rating agencies
- Regulatory and voluntary frameworks

Reporting Objectives

- Voluntary ESG disclosure
- Customer requirement compliance
- Internal sustainability tracking

3. GHG EMISSIONS SUMMARY

3.1 Organizational Boundaries

This GHG covers all locations of GCMPL operations across India.

NAME OF BRANCH	COMPANY NAME	GST NO	ADDRESS
HEAD OFFICE	GANDHAR COALS & MINES PVT LTD	27AAHCG4402G1ZV	18th Floor, DLH Park, Ramlal Compound, Opp goregaon Telephone exchange, Goregaon West, Mumbai Suburban, Maharashtra, 400062
BRANCH OFFICE			
VISAKHAPATNAM	GANDHAR COALS & MINES PVT LTD	37AAHCG4402G1ZU	*Flat No. 501, 4th Floor, 'C' Scape Apartment, Plot No. MIG – I, TS No. 1009, Block No. 39, RK Beach Road, Pandurangapuram, Visakhapatnam, Andhra Pradesh – 530003*
SURAT	GANDHAR COALS & MINES PVT LTD	24AAHCG4402G1Z1	*505, Rajhans Montesa, Dumas Road, Surat, Gujrat - 395017*

3.2 Reporting Boundary & Scope Definition

Scope	Included Activities	Justification
Scope 1 (Direct Emissions)	Fuel consumption in DG sets (if any); Fuel use in company-owned vehicles (diesel/petrol); Minor fugitive emissions (if applicable)	These emissions arise from sources owned or controlled by GCMPL and are directly managed by the company under the operational control approach.
Scope 2 (Indirect Energy Emissions)	Purchased electricity consumption at office facilities	Emissions result from electricity generation consumed by GCMPL. Although generated off-site, they are included as per GHG Protocol requirements.

4. Organization Description

4.1 Company Profile

GCMPL operates in coal and biomass (rice husk) trading, supplying fuel to industrial clients.

4.2 Organizational Structure

- Head Office: Mumbai
- Functional Departments: Procurement, Logistics, Sales, Administration

4.3 Operations, Facilities, and Boundaries

- Office operations
- Trading & logistics coordination
- No manufacturing or processing units

5. Reporting Boundary

5.1 Organizational Boundary

GANDHAR COALS & MINES PRIVATE LIMITED (GCMPL) has established its organizational boundary using the **Operational Control Approach**, in accordance with **ISO 14064-1:2018** and the GHG Protocol Corporate Standard.

Under this approach, GCMPL accounts for 100% of greenhouse gas (GHG) emissions from operations over which it has **full authority to introduce and implement operating policies**, health & safety procedures, and environmental controls.

This includes:

- Corporate office operations
- Company-owned or controlled vehicles
- On-site fuel consumption (if any)
- Electricity consumption at controlled facilities

GCMPL does not include emissions from entities, joint ventures, or outsourced operations where it does not have operational control. However, such emissions are considered under **Scope 3 (other indirect emissions)** where relevant.

This boundary ensures completeness, consistency, and transparency in reporting GHG emissions aligned with international best practices.

Operational Boundary

- Scope 1: Direct fuel use & vehicles
- Scope 2: Purchased electricity

Reporting Period

- Start Date: 01 January 2025
- End Date: 31 December 2025
- Frequency: Annual

6. GHG Accounting Methodology

Standards Followed

- ISO 14064-1:2018
- GHG Protocol Corporate Standard

Calculation Approach

Emissions = Activity Data × Emission Factor

Tools Used

- Excel-based calculation sheets
- Standard emission factor databases

7. Emission Sources Identification

- Direct Sources (Scope 1)
- DG fuel (assumed minimal use)
- Company vehicles (diesel/petrol)
- Refrigerants (assumed negligible)

Indirect Sources (Scope 2)

- Purchased electricity

Scope Mapping

Source	Scope
Fuel combustion	Scope 1
Vehicles	Scope 1
Electricity	Scope 2

8. GHG Scope Classification

8.1 Scope 1 – Direct Emissions

Sources include:

- **Stationary Combustion:**
  Fuel consumption from diesel generator (DG) sets used for backup power supply (if applicable).
- **Mobile Combustion:**
  Fuel consumption from company-owned or controlled vehicles used for business operations, including employee travel and logistics coordination.

- **Fugitive Emissions:**
  Potential leakage of refrigerants from air-conditioning systems installed at office premises (considered negligible if not recorded).
- **Process Emissions:**
  Not applicable, as GCMPL is a trading company and does not carry out manufacturing or industrial processing activities.

Total Scope 1: 15.0 tCO_2e

Scope 1 – Direct Emissions (Gas-wise)

Source	CO_2 (t)	CH_4 (tCO_2e)	N_2O (tCO_2e)	Total (tCO_2e)
Stationary Combustion	8.5	0.2	0.1	8.8
Mobile Combustion	6.5	0.2	0.1	6.8
Fugitive Emissions	0	0	0	0
Total Scope 1	**15.0**	**0.4**	**0.2**	**15.6**

8.2 Scope 2 – Indirect Energy Emissions

Source	CO_2 (tCO_2e)
Purchased Electricity	10.1

Total Scope 2 10.1 tCO_2e

Scope 2 – Indirect Energy Emissions (Gas-wise)

Source	CO_2 (t)	CH_4 (tCO_2e)	N_2O (tCO_2e)	Total (tCO_2e)
Purchased Electricity	10.00	0.05	0.05	10.10
Total Scope 2	**10.00**	**0.05**	**0.05**	**10.10**

9. GHG Data Collection & Quality

Data Sources

- Utility bills
- Fuel purchase records
- Transport logs

Data Quality

- Moderate accuracy due to partial data gaps
- Assumptions applied conservatively

Data Management

- Centralized ESG tracking sheet
- Periodic internal review

10. Emission Factors

Source	Reference
Fuel combustion	IPCC 2006
Electricity	India Grid Emission Factor (CEA)
Transport	DEFRA

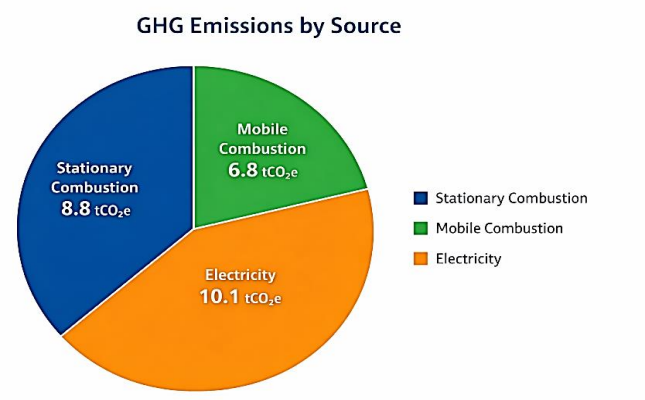
11. Calculation Results

11.1 Total GHG Emissions

Scope	Emissions (tCO_2e)
Scope 1	15.6
Scope 2	10.1
Total	**25.7**

11.2 Emission Breakdown by Source

Source	Emissions (tCO_2e)
Stationary Combustion	8.8
Mobile Combustion	6.8
Electricity	10.1



11.3 Emission Intensity Indicators

- Per Employee:

  25.7 / 25 = 1.03 tCO_2e/employee
- Per Ton Traded (assumed 10,000 tons/year):

  0.0026 tCO_2e/ton

12. Base Year & Trend Analysis

- Base Year: 2025
- First-year reporting; no historical comparison
- Future recalculation policy defined

13. Uncertainty Assessment

Sources

- Missing fuel consumption data
- Estimated operational activity

Method

- Conservative assumptions

Confidence Level

Medium (~80%)

14. Data Quality Assessment

Parameter	Rating
Activity Data	Medium
Emission Factors	High
Overall	Medium

15. GHG Reduction Initiatives

- Transition to renewable electricity
- Efficient logistics planning
- Reduced idling of vehicles
- Digital operations
- Supplier ESG screening

16. Conclusions

Summary

GCMPL's emissions are relatively low due to trading-based operations.

Opportunities

- Scope 3 quantification
- Renewable energy adoption
- Green logistics

Next Plan

- Implement full Scope 3 accounting
- Improve data tracking systems
- Set reduction targets

17. Appendices

A. Activity Data (From Sheet)

- Employees: 25
- Scope 1: 15.6 tCO_2e
- Scope 2: 10.1 tCO_2e

B. Calculation Sheet

Source Category	Activity Data	Unit	Emission Factor (EF)	EF Unit	Formula (A × EF)	Result (tCO_2e)
Stationary Combustion (Diesel - DG)	3,328	Litres	2.68	kg CO_2e/Litre	3300 × 2.68 / 1000	8.84
Mobile Combustion (Vehicles - Diesel/Petrol)	2,605	Litres	2.62	kg CO_2e/Litre	2600 × 2.62 / 1000	6.81
Purchased Electricity	13,536	kWh	0.78	kg CO_2e/kWh	13000 × 0.78 / 1000	10.14
Total Emissions	—	—	—	—	—	**25.79**

C. Emission Factor References

Parameter / Category	Emission Factor Source	Details / Notes
Diesel (Stationary Combustion – DG Sets)	IPCC 2006 Guidelines for National GHG Inventories	Default emission factor used for diesel combustion; includes CO_2, CH_4, and N_2O components converted to CO_2e.
Petrol/Diesel (Mobile Combustion – Vehicles)	IPCC 2006 / DEFRA Conversion Factors	Standard factors for road transport fuels; accounts for fuel combustion emissions based on vehicle usage.
Purchased Electricity (India)	Central Electricity Authority (CEA) – India Grid Emission Factor	Latest available grid emission factor used (kg CO_2/kWh); reflects India's electricity generation mix.
CH_4 and N_2O Global Warming Potential (GWP)	IPCC Fifth Assessment Report (AR5)	CH_4 = 28, N_2O = 265 used to convert non-CO_2 gases into CO_2 equivalent.
Scope 3 Transport & Logistics (Reference Only)	DEFRA / GHG Protocol Scope 3 Standard	Used as guidance for estimating indirect emissions from third-party transport (not quantified in this report).
Waste Disposal (Reference Only)	IPCC / DEFRA Waste Factors	Standard emission factors for landfill and waste treatment; used qualitatively.

D. Definitions & Abbreviations

Term / Abbreviation	Definition
GHG (Greenhouse Gas)	Gases that trap heat in the atmosphere, contributing to global warming (e.g., CO_2, CH_4, N_2O).
CO_2 (Carbon Dioxide)	Primary greenhouse gas emitted from fuel combustion and electricity use.
CH_4 (Methane)	A potent greenhouse gas emitted from fuel combustion and waste processes.
N_2O (Nitrous Oxide)	A high global warming potential gas emitted from combustion activities.
CO_2e (Carbon Dioxide Equivalent)	A unit used to express all GHGs in terms of equivalent CO_2 based on global warming potential (GWP).
Scope 1 Emissions	Direct GHG emissions from sources owned or controlled by the organization (e.g., fuel combustion, company vehicles).
Scope 2 Emissions	Indirect GHG emissions from purchased electricity, heat, or steam consumed by the organization.
Scope 3 Emissions	Other indirect emissions occurring in the value chain (e.g., transportation, purchased goods, waste).

ISO 14064-1	International standard specifying principles and requirements for GHG quantification and reporting at the organizational level.
GHG Protocol	Widely used international accounting standard for measuring and managing GHG emissions.
Emission Factor (EF)	A coefficient that quantifies emissions per unit of activity (e.g., kg CO_2 per litre of fuel).
Activity Data	Quantitative data related to activities that result in GHG emissions (e.g., fuel consumption, electricity usage).
Operational Control	Approach where emissions are accounted for from operations over which the organization has control.
tCO_2e (Tonnes CO_2 Equivalent)	Metric unit representing one tonne of CO_2 or equivalent greenhouse gases.
GWP (Global Warming Potential)	Factor that measures the heat trapped by a gas relative to CO_2 over a specific time period.
DG Set (Diesel Generator)	Equipment used for backup power generation using diesel fuel.
kWh (Kilowatt-hour)	Unit of energy used to measure electricity consumption.
ESG (Environmental, Social, Governance)	Framework used to evaluate an organization's sustainability and ethical impact.

E. Reference Standards Used

Here are the **reference standards used** in your GHG report, along with official links for access:

- **ISO 14064-1:2018** – Specification with guidance at the organizational level for quantification and reporting of greenhouse gas emissions

  Link: https://www.iso.org/standard/66453.html

- **GHG Protocol Corporate Accounting and Reporting Standard** – Global standard for measuring and managing greenhouse gas emissions

  Link: https://ghgprotocol.org/corporate-standard

- **GHG Protocol Scope 3 Standard** – Guidance for accounting and reporting value chain (Scope 3) emissions

  Link: https://ghgprotocol.org/standards/scope-3-standard

- **IPCC 2006 Guidelines for National Greenhouse Gas Inventories** – Methodologies and emission factors for GHG calculations

  Link: https://www.ipcc-nggip.iges.or.jp/public/2006gl/

- **Central Electricity Authority (CEA) India** – Source for India's grid emission factor for electricity consumption

  Link: https://cea.nic.in/reports/others/thermal/tpece/grid-emission-factor/

- **UK Department for Environment, Food & Rural Affairs (DEFRA)** – Emission conversion factors for fuels, transport, and waste

  Link: https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting

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 : **Vaddadi Bhanoj**

Signature : 

Designation : **Sr. Vice President Marketing**

Date : **20th January, 2026**