METALKRAFT LIMITED

#1604,16th Floor, Manjeera Trinity Corporate JNTU-Hitech City Road,
Kukatpally Hyderabad- 500072 Telangana State

GHG EMISSION REPORT

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Prepared By:	**Designation:**	**Approved By :**	**Designation:**
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1. Executive Summary

METALKRAFT manufactures and supplies engineered steel products and systems, including cold roll-formed sections, pre-engineered buildings and steel structures, purlins and girts, deck panels, roofing and wall cladding, solar module mounting structures, door/window reinforcements, metal crash barriers and general engineering components. Its manufacturing activities can involve steel receipt and handling, roll forming, cutting, punching, drilling, shearing, press-brake operations, fabrication, shot blasting, assembly, packing and dispatch.

The reporting period is FY 2025–26 (01st April, 2025–31st March, 2026). The supplied GHG summary reports Scope 1 of 13.63584 tCO_2e, Scope 2 of 206.07253 tCO_2e, and Scope 3 of 237,233.54 tCO_2e.

1.2 Key Emission Results

Organizational Boundary
METALKRAFT LIMITED
#1604,16th Floor, Manjeera Trinity Corporate JNTU-Hitech City Road,
Kukatpally Hyderabad- 500072 Telangana State
Calculation period: 01st April, 2025 to 31st March, 2026
All values are in MT CO2 e
GHG Emission Reporting Frequency: Annually

Scope	Emissions (tCO_2e)
Scope 1	**13.63584**
Scope 2	**206.07253**
Scope 3	**237233.54**
Scope 3 Upstream	**236937.62**
Scope 3 Downstream	**295.92**

Scope 3 represents 99.907% of the supplied total. This means purchased materials and other value-chain categories are likely to be the key management focus, but the exact source contribution cannot be confirmed without the detailed Scope 3 calculation sheet. Scope 1 and Scope 2 together account for 219.70837 tCO_2e.

No verified reduction achievement can be claimed from the supplied file because no 2023 baseline emissions, prior-year comparable inventory, activity trends or evidence of completed initiatives were provided. Opportunities identified in this report are recommendations, not claims that measures have already been implemented.

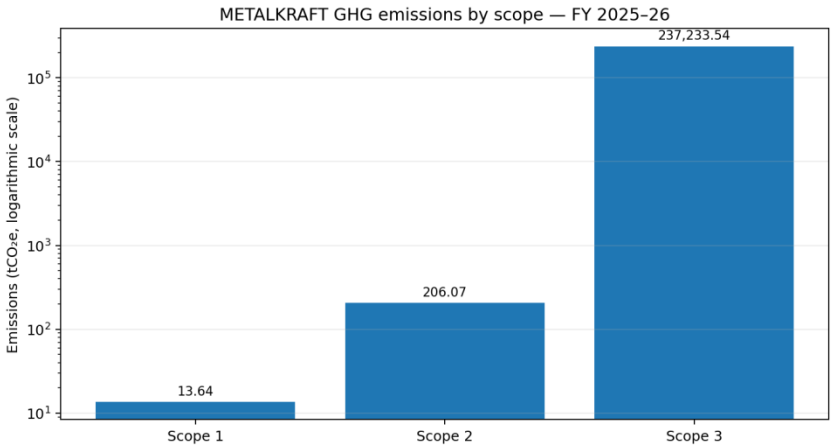

Figure 1. Reported emissions by scope. The vertical axis is logarithmic because Scope 3 is much larger than Scopes 1 and 2.

2. Introduction

2.1 Purpose

The purpose of this report is to document METALKRAFT's organizational GHG inventory for FY 2025–26, establish a transparent reporting structure, identify material direct and indirect emission sources, and define the records required to improve repeatability, accuracy and audit readiness.

2.2 Intended users

- METALKRAFT management and the Managing Director / Director Operations.
- Operations, Production, Maintenance, Electrical, Stores, Dispatch, PPIC, Plant Design, Quality Assurance and HR & Administration teams.
- Customers, suppliers, lenders, business partners and other stakeholders where the inventory is relevant.
- Independent verifiers or auditors, if METALKRAFT commissions verification.

2.3 Reporting objectives

The stated objective is voluntary corporate GHG accounting aligned to ISO 14064-1:2018 and the GHG Protocol, with a practical view to supporting customer requests, ESG reporting, operational improvement and future independent verification. Any specific regulatory or customer reporting obligation should be separately identified by management.

2.4 Principles

The inventory should be relevant to business decisions, complete within the approved boundary, consistent between periods, transparent about assumptions and exclusions, and accurate enough to reduce material bias and uncertainty.

3. Organization Description

3.1 Company profile

METALKRAFT is an Indian engineering and manufacturing company specializing in cold roll-forming and engineered steel solutions. The website and brochure describe six manufacturing facilities across Hyderabad, Bengaluru and Ahmedabad, with regional/commercial offices including Delhi and Chennai. The brochure states a covered area of approximately 510,000 square feet and describes manufacturing capacity; capacity is not treated as actual FY 2025–26 production in this report.

Products serve infrastructure, construction, automotive, air-pollution-control, door and window, electrical, furniture, pre-engineered building, road safety, solar power and general engineering applications.

3.2 Organizational structure and roles

The supplied organization chart shows the Managing Director and Director Operations at the top level, with operational leadership through Deputy General Manager — Operations and Deputy General Manager — Quality Assurance. The chart identifies PPIC, Plant Designs, Production (SG), Production (SP), Maintenance, Electrical, Stores, Dispatch and HR & Admin. These functions should supply and review the activity records relevant to their responsibilities.

Function	GHG inventory responsibilities recommended
Managing Director / Director Operations	Approve reporting boundary, resources, significant assumptions and final report.
DGM — Operations / Production	Coordinate plant activity data, production output, fuel use, process records and improvement plans.
Maintenance	Maintain DG set fuel, equipment maintenance and refrigerant service/leakage records where applicable.
Electrical	Collect electricity invoices, meter readings, renewable electricity and generator operating records.
Stores / Procurement	Provide steel and other material purchase quantities, supplier information and packaging data.
Dispatch / Logistics	Provide outbound shipment weights, distances, modes and carrier data.
PPIC / Plant Design	Provide production volumes, product mix and process-related operational context.
Quality Assurance	Review data completeness, traceability, calculation checks and corrective actions.
HR & Admin	Provide employee counts, commuting surveys, business travel and office-related activity data.
Finance / Accounts (as applicable)	Reconcile utility invoices, fuel purchases, procurement spend and travel expenses.

3.3 Operations and facilities

The public contact page lists four Hyderabad manufacturing units, one Bengaluru factory, and one Ahmedabad manufacturing unit, plus the Hyderabad corporate office and Delhi and Chennai regional offices. The report should cover these sites only after management confirms that all six factories and relevant offices fall within the selected organizational boundary and that the supplied totals cover them.

Manufacturing activities described in the brochure include roll forming, beam-line processing, CNC plasma cutting, plate drilling and punching, shearing, press-brake work, assembly and shot blasting. Actual processes and equipment can differ by site and product line; site-level applicability must be confirmed.

4. Reporting Boundary

4.1 Organizational boundary

Recommended approach: operational control. Under this approach, METALKRAFT accounts for 100% of GHG emissions from operations over which it has operational control. The final report owner must confirm the approach and identify any leased, shared, outsourced or jointly operated facilities and vehicles. This is a proposed boundary, not a confirmed statement that every site is included in the submitted totals.

4.2 Proposed entity and location coverage

Location / facility	Publicly listed location	Proposed treatment pending confirmation
Hyderabad Unit 1	IDA Pashamylaram, Sangareddy, Telangana	Include if operationally controlled and included in source totals
Hyderabad Unit 2	IDA Pashamylaram, Sangareddy, Telangana	Include if operationally controlled and included in source totals
Hyderabad Unit 3	IDA Pashamylaram, Sangareddy, Telangana	Include if operationally controlled and included in source totals
Hyderabad Unit 4	General Park, IP Sultanpur, Sangareddy, Telangana	Include if operationally controlled and included in source totals

Bengaluru Unit 5	KIADB Industrial Area, Veerapura, Bengaluru Rural, Karnataka	Include if operationally controlled and included in source totals
Ahmedabad Unit 6	Moje Chacharwadi, Sanand, Ahmedabad, Gujarat	Include if operationally controlled and included in source totals
Corporate office	Kukatpally, Hyderabad, Telangana	Include office electricity, fuels, refrigerants, travel and commuting if controlled/relevant
Delhi and Chennai regional offices	Delhi NCR and Nungambakkam, Chennai	Include relevant office and travel data if within boundary

4.3 Operational boundary and scope mapping

Scope 1 covers direct emissions from owned or controlled sources. Scope 2 covers emissions from purchased electricity and any purchased steam, heating or cooling. Scope 3 covers other material indirect emissions in the value chain. Scope 3 categories should be screened for relevance, quantified where material, and transparently excluded with justification where not applicable or not yet quantifiable.

4.4 Exclusions and thresholds

No formal significance threshold or exclusion list was supplied. Before finalization, METALKRAFT should document exclusions, their rationale, whether they are expected to be material, and a plan for obtaining the missing data. No site is assumed excluded solely because site-specific activity data was not supplied.

5. Reporting Period

Item	Description
Start date	01st April, 2025
End date	31st March, 2026
Reporting frequency	Annual; monthly collection recommended for operational control
Baseline year	2023, as nominated in supplied summary
Comparability	2023 baseline figures were not supplied; trend comparison is currently not possible

Use the same financial-year window for each annual inventory unless a justified exception is documented. If site acquisitions, closures, outsourcing changes, material methodology changes or errors materially affect comparability, apply and document a base-year recalculation policy.

6. GHG Accounting Methodology

6.1 Standards and guidance

- ISO 14064-1:2018 — organizational-level quantification and reporting of GHG emissions and removals.
- GHG Protocol Corporate Accounting and Reporting Standard — corporate boundary and Scope 1, Scope 2 and Scope 3 accounting.
- GHG Protocol Corporate Value Chain (Scope 3) Standard and calculation guidance for material value-chain categories.
- Central Electricity Authority (CEA) CO_2 Baseline Database for an applicable Indian grid electricity factor, selecting the version and factor that match the reporting methodology and period.
- IPCC guidance and nationally or internationally recognized emission-factor sources where suitable activity-specific factors are unavailable.

6.2 Calculation approach

The general calculation method is: GHG emissions (tCO_2e) = activity data × emission factor, with unit conversion and global warming potential (GWP) conversion applied as required. For electricity, activity is generally kWh consumed; for fuel, litres, kilograms, standard cubic metres or energy units; for purchased materials, tonnes or a documented spend-based proxy; for transport, tonne-kilometres, fuel consumed or distance-based activity; and for refrigerants, kilograms added or lost.

The supplied summary does not identify the exact factor set, version, GWP assessment, calculation software, market-based electricity instruments or calculation workbook used to derive its figures. These must be recorded in the final calculation file. This report does not claim that the totals have been independently recalculated.

6.3 Tools and controls

No dedicated GHG software was identified in the supplied files. A controlled spreadsheet can be used if it includes protected formulas, units, source references, factor versions, reviewer checks, change logs and a documented approval process. Store invoices, meter records, procurement exports and carrier records in a controlled evidence folder.

7. Emission Sources Identification

Source / activity	Likely source category	Scope	Evidence to collect
Diesel / petrol / gas used in stationary equipment or DG sets	Stationary combustion	1	Fuel invoices, issue slips, DG logbooks, meter hours
Company-owned or controlled vehicles	Mobile combustion	1	Fuel cards, litres by fuel type, vehicle logs
Air-conditioning and refrigeration systems	Fugitive refrigerant emissions	1	Refrigerant type, service logs, top-up quantity, leakage records
Manufacturing process emissions	Process emissions if any	1	Process review; confirm whether any chemical reactions release GHGs
Purchased electricity at factories and offices	Purchased electricity	2	Utility bills, meter readings, renewable electricity instruments
Purchased steel coils, plates and other materials	Purchased goods and services	3 upstream	Purchase quantity by grade, supplier-specific product footprint where available
Inbound transport of steel, consumables and equipment	Upstream transport and distribution	3 upstream	Carrier, mode, distance, shipment weight, fuel or tonne-km
Waste sent for treatment/disposal	Waste generated in operations	3 upstream	Waste type and mass, destination, treatment route
Capital equipment and construction materials	Capital goods	3 upstream	Capital purchases and material data, where material
Employee commuting	Employee commuting	3 upstream	Representative survey, modes, distances and days
Business travel	Business travel	3 upstream	Travel agency reports, flight/train/taxi distances
Fuel- and energy-related activities not included in Scopes 1/2	Fuel- and energy-related activities	3 upstream	Applicable factors and energy quantities
Outbound transport and distribution	Downstream transport and distribution	3 downstream	Shipment records, mode, weight and destination
Use of sold products	Use of sold products	3 downstream if applicable	Screen whether product use causes material direct energy or fuel consumption attributable to sold products
End-of-life treatment of sold steel products	End-of-life treatment	3 downstream	Product mass, expected recycling/disposal route and documented method

Scope classification must follow the GHG Protocol definitions. In particular, purchased raw steel generally belongs in Scope 3 upstream rather than Scope 1 or Scope 2. The supplied summary does not identify the individual categories included in its Scope 3 total.

8. GHG Scope Classification

8.1 Scope 1 — direct emissions

The supplied Scope 1 total is 13.63584 tCO_2e. The summary does not split this figure by source or gas. The following sources should be checked at each site; applicability is not confirmed by the summary.

- Stationary combustion: diesel or other fuel used in DG sets, boilers, furnaces or other fixed combustion equipment, if present.
- Mobile combustion: fuel used by company-owned or controlled vehicles, forklifts or other mobile equipment, if present.
- Fugitive emissions: leakage or refrigerant losses from air-conditioning and refrigeration equipment.
- Process emissions: assess whether any process produces direct GHG emissions; do not assume process emissions exist simply because metal fabrication occurs.

Scope 1 item	FY 2025–26 result	Status
Total Scope 1	13.63584 tCO_2e	Provided in source summary
CO_2	Not provided	Obtain source calculation / gas-level data
CH_4	Not provided	Obtain source calculation / gas-level data
N_2O	Not provided	Obtain source calculation / gas-level data
Refrigerant gases (if any)	Not provided	Obtain refrigerant type and loss data
Stationary/mobile/fugitive split	Not provided	Obtain source-level calculation sheet

Gas-wise Scope 1 emissions cannot be derived accurately from the scope total alone. Do not publish a gas-wise breakup until the underlying fuel and refrigerant calculations are available.

8.2 Scope 2 — indirect energy emissions

The supplied Scope 2 total is 206.07253 tCO_2e. Purchased electricity is expected to be a major source for roll-forming lines, CNC cutting and drilling equipment, compressors, lighting, ventilation, office equipment and other plant utilities. Actual consumption and the applied grid factor were not included in the summary.

- Collect electricity invoices and meter readings for each facility and reporting month.
- Record renewable electricity generated and consumed on-site separately, where applicable.
- Record any purchased steam, heating or cooling if applicable; otherwise document as not applicable.
- State whether the result is location-based, market-based, or whether only one method is applicable. Do not claim renewable electricity reductions without contractual and attribute evidence.

8.3 Scope 3 — other indirect emissions

The supplied Scope 3 total is 237,233.54 tCO_2e, comprising upstream emissions of 236,937.62 tCO_2e and downstream emissions of 295.92 tCO_2e. The upstream and downstream figures add to the reported Scope 3 total. However, category-level details and calculation inputs were not supplied.

For a steel products manufacturer, purchased steel and other materials can be a material upstream category. This is a screening priority, not a confirmed allocation of the reported Scope 3 result. Procurement records, supplier product carbon data, inbound logistics, waste, business travel, commuting and outbound logistics should be screened and quantified using a consistent method.

Scope 3 category to screen	Direction	Current evidence status
Purchased goods and services, including steel	Upstream	Likely material; source-level calculation not provided
Capital goods	Upstream	Not evidenced in summary; screen for materiality
Fuel- and energy-related activities	Upstream	Not separately identified
Upstream transportation and distribution	Upstream	Not separately identified
Waste generated in operations	Upstream	Not separately identified
Business travel	Upstream	Not separately identified
Employee commuting	Upstream	Not separately identified
Downstream transportation and distribution	Downstream	Not separately identified
Processing/use of sold products	Downstream	Applicability requires screening
End-of-life treatment of sold products	Downstream	Applicability requires screening
Other applicable categories	Upstream/downstream	Screen and document applicability

9. GHG Data Collection and Quality

9.1 Data sources and collection

Data owners should collect records monthly or quarterly, retain original documents, and reconcile totals at year-end. A data sheet should include site, month, activity, quantity, unit, source document, factor, factor source/version, calculation, preparer, reviewer and date.

Data set	Responsible function proposed	Primary source / control
Electricity consumption	Electrical / Accounts	Utility bills, meter readings; reconcile monthly totals
Diesel and other fuel	Maintenance / Stores / Accounts	Supplier invoices, stock issue and consumption logs
Refrigerants	Maintenance	Equipment register, service slips, refrigerant type and quantity
Purchased steel and consumables	Stores / Procurement / Accounts	ERP purchase records, invoices, mass units and supplier declarations
Inbound/outbound transport	Dispatch / Procurement	Shipment records, weights, mode, distance and carrier data
Waste	Operations / Stores / approved waste vendors	Weighment slips, manifests, vendor receipts and destination
Employee commuting	HR & Admin	Anonymous representative survey and documented extrapolation method
Business travel	HR & Admin / Accounts	Travel bookings, expense claims, itinerary and distance
Production output	PPIC / Production	Monthly finished-goods mass by product and site
Employee count	HR & Admin	Headcount at a stated date or average FTE method, consistently applied

9.2 Data management procedure

- Assign one accountable data owner for each source and each site.
- Collect source records for all 12 months and check for missing months, duplicate invoices and unusual values.
- Use consistent units and document all conversions.
- Apply emission factors with version, geography, technology and gas coverage recorded.
- Review calculations independently and reconcile electricity, fuel, materials and logistics against finance or ERP records.
- Maintain a change log and obtain management approval before freezing the inventory.

9.3 Current limitations

The provided GHG summary is insufficient to independently reproduce the reported totals. Missing items include activity quantities, source/category splits, factors and versions, gas-level data, electricity method, production output, 2023 baseline results, uncertainty calculation, and supporting records. These limitations must be closed before external assurance or an unqualified compliance statement.

10. Emission Factors

Emission factors should be specific to the activity, geography, fuel/material, technology and reporting year where possible. The factor register must cite source, publication/version, factor unit, GWP basis, date accessed and any conversion assumptions.

Activity	Preferred factor source / selection principle	Unit examples
Grid electricity in India	CEA CO_2 Baseline Database; select applicable grid factor and disclose version and method	kg CO_2/kWh or t CO_2/MWh
Combustion fuels	IPCC default factors or applicable national factors; use fuel-specific calorific value and oxidation assumptions where needed	kg gas/TJ; kg CO_2/litre; kg CO_2/kg
Refrigerants	Recognized refrigerant-specific GWP source aligned with the chosen reporting basis	kg CO_2e/kg refrigerant lost
Purchased steel and materials	Supplier-specific verified product footprint where available; otherwise a credible LCA database or documented industry-average factor	t CO_2e/tonne material
Transport	Fuel-based or mode-specific distance/tonne-kilometre factors from a recognized source such as DEFRA where appropriate to geography and method	kg CO_2e/km; kg CO_2e/tonne-km
Waste	Treatment-route and waste-type factors from a recognized national or international source	kg CO_2e/kg waste

The factor sources listed above are recommended sources for final calculations; they are not confirmation that these factors were used to generate the supplied headline figures. Select one consistent GWP basis and disclose it. Avoid combining incompatible factor sets without documenting the reason.

11. Calculation Results

11.1 Total GHG emissions

Scope	Emissions (tCO_2e)	Share of total
Scope 1	13.63584	0.0057%
Scope 2	206.07253	0.0868%
Scope 3	237,233.54	99.9075%
Total	237,453.24837	100.0000%
Scope 3 upstream	236,937.62	Component of Scope 3
Scope 3 downstream	295.92	Component of Scope 3

Total reported footprint is calculated as Scope 1 + Scope 2 + Scope 3 = 13.63584 + 206.07253 + 237,233.54 = 237,453.24837 tCO_2e. The calculation is arithmetic only and does not validate the underlying scope totals.

11.2 Emission breakdown by source

A source-level breakdown cannot be prepared from the summary sheet because it contains only scope totals. The following table is the required completion schedule; source amounts must be populated from the underlying calculation workbook.

Scope	Source line	FY 2025–26 emissions	Evidence / completion status
1	Stationary combustion	Pending	Fuel quantities and factors required
1	Mobile combustion	Pending	Vehicle fuel records required
1	Fugitive refrigerants	Pending	Service/top-up records required
1	Process emissions, if any	Pending	Applicability assessment required
2	Purchased electricity	Pending at source level	kWh and grid factor required
3 upstream	Purchased steel/materials	Pending at category level	Reconcile to Scope 3 upstream total
3 upstream	Inbound logistics, waste, travel, commuting and other relevant categories	Pending	Category screening and calculation required
3 downstream	Outbound logistics, product processing/use and end-of-life as applicable	Pending	Reconcile to Scope 3 downstream total

11.3 Emission intensity indicators

Indicator	Calculation	Result / status
Total emissions per employee	237,453.24837 tCO_2e ÷ 240 employees	989.389 tCO_2e/employee
Scope 1 per employee	13.63584 ÷ 240	0.05682 tCO_2e/employee
Scope 2 per employee	206.07253 ÷ 240	0.85864 tCO_2e/employee
Scope 3 per employee	237,233.54 ÷ 240	988.473 tCO_2e/employee
Emissions per tonne of finished product	Total tCO_2e ÷ actual FY 2025–26 output (tonnes)	Not calculable; actual production tonnage not provided
Emissions per revenue	Total tCO_2e ÷ FY 2025–26 revenue	Not calculated; reporting-period revenue not provided

The employee intensity is a screening metric only. Because Scope 3 dominates the total and its underlying calculation has not been provided, this intensity should not be used for external benchmarking until the Scope 3 data and the employee-count method are validated.

12. Base Year and Trend Analysis

The source sheet nominates 2023 as the baseline year but does not provide 2023 emissions by scope, activity data or the rationale for selecting that year. Therefore, this report cannot determine a reduction or increase versus baseline.

Requirement	Current position	Action required
Baseline year	2023 nominated	Obtain approved 2023 inventory and boundary
Historical comparison	Unavailable	Calculate comparable Scope 1, Scope 2 and Scope 3 totals
Intensity trend	Unavailable	Obtain production tonnage, revenue and consistent headcount
Organizational changes	Not documented	Record acquisitions, new/closed sites, outsourcing or structural changes
Base-year recalculation policy	Not provided	Define significance threshold and recalculation triggers

A base-year recalculation should be considered where structural changes or significant errors materially affect comparability. Routine organic growth or decline should be distinguished from structural changes. The company should document the recalculation threshold and apply it consistently.

13. Uncertainty Assessment

A numerical uncertainty estimate cannot be calculated from the summary sheet because activity-data uncertainty, factor uncertainty, source-level values and aggregation method are unavailable.

Uncertainty source	Potential concern	Recommended assessment/control
Purchased material quantities and product factors	Potentially material because Scope 3 is the largest reported scope	Use supplier-specific data where available; compare purchase mass with ERP and invoices
Electricity quantities and grid factor	Invoice completeness, meter allocation and factor selection	Reconcile all site bills; document CEA factor version and calculation method
Fuel and refrigerant records	Missing logs, stock changes, leakage or estimates	Reconcile purchases, stock movement, consumption and maintenance logs
Transport estimates	Incomplete distances, shipment masses or modes	Prefer carrier fuel/tonne-km data; document proxy and assumptions
Boundary and coverage	Sites or offices may be omitted or double-counted	Create a site list and signed completeness checklist
Scope 3 category mapping	Potential overlap or omissions	Map each calculation line to one category and check for double counting

Recommended method: assign data-quality and uncertainty ranges to each material source, calculate source-level uncertainty where sufficient data exists, and aggregate using a documented approach consistent with the selected standard/guidance. Until quantified, report uncertainty qualitatively as high for the overall inventory because the activity-level basis is not available. No numerical confidence interval is claimed.

14. Data Quality Assessment

Data element	Current quality rating	Reason	Improvement needed
Scope-level totals	Medium for transcription; low for auditability	Values present, calculation support absent	Obtain calculation workbook and source evidence
Scope 1 source/gas split	Low / unavailable	No source or gas breakdown	Fuel, refrigerant and process records
Scope 2 electricity	Low / unavailable at activity level	No kWh or factor supplied	Site/month meter and invoice data
Scope 3 categories	Low / requires reconciliation	Only upstream/downstream totals provided	Category map, material quantities, supplier factors and logistics data
Employee count	Medium for arithmetic	240 reported; date/method not stated	Confirm average or year-end headcount method
Production intensity	Unavailable	Actual output not provided	Monthly production tonnes by site and product
Base year 2023	Unavailable	No baseline totals or records supplied	Retrieve 2023 inventory and recalculate if needed

Cross-checks to complete: scope 3 upstream plus downstream equals reported Scope 3; scope totals equal grand total; utility bills match monthly consumption; fuel purchases reconcile with stock and use; material procurement aligns with purchase ledger; shipment data aligns with dispatch records; and year-on-year anomalies are investigated.

15. GHG Reduction Initiatives

The actions below are proposed opportunities suited to steel roll-forming and fabrication operations. They should be recorded as planned until implementation and results are supported by evidence.

Initiative	Relevant area	Suggested KPI / evidence	Owner proposed	Timing
Sub-meter high-load roll-forming, CNC, compressors and shot-blasting equipment	Scope 2	kWh per tonne produced; meter readings	Electrical + Production	0–6 months
Compressed-air leak detection, pressure optimization and scheduled maintenance	Scope 2	Compressor kWh; leak closure log	Maintenance + Electrical	0–6 months
Optimize idle time, machine scheduling and changeovers	Scope 2 / productivity	kWh per production tonne; machine idle hours	Production + PPIC	0–12 months
Assess high-efficiency motors, drives and power-factor performance	Scope 2	Energy audit and project savings calculations	Electrical	6–18 months
Evaluate rooftop solar / renewable electricity options where technically feasible	Scope 2	Renewable kWh and documented contractual attributes	Management + Electrical	6–24 months
Reduce steel scrap through nesting, cutting optimization and yield monitoring	Scope 3 upstream / material efficiency	Steel input vs good output; scrap tonnes and destination	Production + Quality + Stores	0–12 months
Engage steel suppliers for product-specific GHG data and lower-footprint grades	Scope 3 upstream	Share of steel purchases with supplier footprint data	Procurement / Stores	0–12 months
Improve inbound/outbound load consolidation and route planning	Scope 3 transport	Tonnes shipped, tonne-km, load factor	Dispatch + Procurement	0–12 months
Segregate recyclable scrap and track authorized recovery/disposal	Waste and resource use	Waste by type and destination, weighment slips	Stores + Operations	Ongoing
Track refrigerant servicing and prevent leakage	Scope 1	Refrigerant top-up and loss per equipment type	Maintenance	Ongoing
Collect commuting and business travel data and encourage lower-emission options where practical	Scope 3	Survey coverage; travel distance by mode	HR & Admin	Annual
Set a validated reduction target after a complete baseline is available	All scopes	Approved target, baseline, annual progress	Management + QA	Next reporting cycle

15.1 Goal-setting recommendation

After validating the 2023 baseline and FY 2025–26 source-level inventory, management should set measurable near-term goals for electricity intensity, steel yield/scrap, supplier data coverage and transport efficiency. Targets should state the baseline, boundary, absolute or intensity metric, target year, owner and calculation method.

16. Standards Referred

S. No.	Standard / Reference	Application to METALKRAFT
1	ISO 14064-1:2018	Quantification and reporting of organizational greenhouse gas emissions and removals.
2	GHG Protocol Corporate Accounting and Reporting Standard	Establishment of organizational boundaries and accounting for Scope 1 and Scope 2 emissions.
3	GHG Protocol Corporate Value Chain (Scope 3) Standard	Identification and assessment of indirect value-chain emissions including purchased steel and transportation.
4	IPCC Guidelines for National Greenhouse Gas Inventories	Reference for appropriate greenhouse gas emission factors and calculation methods.
5	Central Electricity Authority (CEA) CO_2 Baseline Database	Selection of applicable Indian grid emission factors for purchased electricity.
6	GHG Protocol Scope 2 Guidance	Accounting for emissions associated with purchased electricity and other acquired energy, where applicable
7	GHG Protocol Scope 3 Calculation Guidance	Quantification of relevant upstream and downstream value-chain emission categories.
8	ISO 14064-3:2019	Guidance for verification and validation of greenhouse gas statements where independent verification is undertaken.
9	DEFRA Greenhouse Gas Conversion Factors	Reference for relevant transportation business travel and other activity-based emission factors where suitable.
10	IPCC Global Warming Potential (GWP) Values	Conversion of relevant greenhouse gas emissions into tonnes of carbon dioxide equivalent (tCO_2e), using a consistent and documented assessment basis.

17. Conclusions and Next-Period Plan

The supplied summary reports a total of 237,453.24837 tCO_2e for FY 2025–26. Scope 3 contributes approximately 99.91% of this total and is therefore the most important area for data validation and value-chain engagement. Scope 2 electricity is the next priority for plant-level energy tracking. Scope 1 requires a source-level breakdown and supporting fuel/refrigerant records.

The main limitation is not the absence of a headline total, but the absence of traceable activity data and calculation details. Before external publication, METALKRAFT should validate the site boundary, reconstruct source-level calculations, confirm the Scope 3 category mapping, obtain the 2023 baseline, document factors and GWPs, quantify uncertainty where practicable, and approve the final inventory.

17.1 Prioritized action plan

Priority	Action	Responsible function	Target timing
1 — Critical	Obtain the detailed GHG calculation workbook and reconcile scope totals, Scope 3 upstream/downstream and grand total	Quality Assurance + Operations + Finance	Within 30 days
2 — Critical	Confirm organizational control boundary and site-by-site coverage	Management + Operations	Within 30 days
3 — Critical	Collect monthly electricity, fuel, refrigerant and material purchase data with source records	Electrical + Maintenance + Stores	Within 45 days
4 — High	Break Scope 3 into relevant categories and verify purchased steel calculations	Stores / Procurement + Dispatch + QA	Within 60 days
5 — High	Retrieve 2023 baseline data and document recalculation policy	Finance + QA + Management	Within 60 days
6 — High	Obtain actual FY 2025–26 production tonnage and finalize intensity metrics	PPIC + Production	Within 45 days
7 — Medium	Complete uncertainty and data quality assessment; management review and approval	Quality Assurance	Within 75 days
8 — Medium	Develop reduction targets and monitor monthly KPIs	Management + relevant departments	Next reporting cycle

17.2 Reporting and grievance contact

For reporting queries, corrections, data requests or GHG-related concerns, contact METALKRAFT at 040-40271149 or marketing@metalkraft.in. Employees should use the company's established internal reporting route through HR & Admin or the designated management channel for workplace concerns. The supplied materials do not identify a dedicated GHG grievance officer or a separate confidential grievance email; management should designate and publish one if required.