# CARRIER WHEELS PRIVATE LIMITED

## GHG Emission Report 2024-25

**(as per ISO 14064-Part 1: 2018)**








**Report No.: CWPL/GHG/FY/2024-25/01**
**Revision No.: 1.1**
**Issue Date: 27-01-2026**
**Total Pages: 20**

**Site(s) Covered-**

1. **Corporate Office & Plant** - 911, Industrial Area, 6th Milestone, Panipat Road, Shamli, (U.P)- 247776, INDIA

CARRIER WHEELS PVT. LTD.

# GHG Emissions Report – 2024-25

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# 1. Preface

Climate Change is a serious global environmental and economic challenge and threat. Increasing concentration of Greenhouse Gases (GHG) due to anthropogenic activities contributes to global climate change. Rapid industrialization increases emissions of GHG into the atmosphere through the burning of fossil fuels. An effective solution to mitigate climate change is to control GHG emission at a micro level. Considering the growing impacts of climate change, countries around the world are becoming more aware of the risks involved, and Governments are taking preventive measures through appropriate policy interventions as a response to climate change. Organizations, too have started to measure, quantify, and report GHG emissions

Carrier Wheels Private Limited has quantified GHG emissions across its business operations and has developed its GHG inventory report to demonstrate its commitment towards sustainable development and addressing the environmental challenge. The GHG re port highlights objectives and strategies anddescribes the GHG inventory framework. This GHG report is prepared according to the requirements of ISO 14064 -1:2018 and provides information on emissions of inventory for the year of 2024-25. The GHG accounting for Carrier Wheels Private Limited has been carried out according to the guidelines of ISO14064-1:2018 and "Corporate GHG Accounting and Management Protocol" developed by World Resource Institute (WRI) and World Business Council for Sustainable Development (WBCSD), and IPCC assessment report.

The report demonstrates a commitment to the corporate mission of Carrier Wheels Private Limited Group Worldwide

i.e., ***"To provide innovative, clean, and energy-efficient solutions for a better tomorrow."***

## 1.1 ACKNOWLEDGEMENT

The report has been prepared for Carrier Wheels Private Limited, Uttar Pradesh, with the sole purpose of reporting Green House Gas (GHG) emission as per ISO – 14064 -1: 2018.

## 1.2 LIMITATIONS

This report is based upon the application of professional judgment to certain facts with resultant subjective interpretations. Professional judgments expressed herein are based on the facts currently available within the limits of the scope of work, information available at Carrier Wheels Private Limited, Uttar Pradesh, prevailing secondary data, budget and schedule**.**

The focus on the GHG Footprint Assessment was based on ISO 14064 -1:2018 (Specification with Guidance at the Organization Level for Quantification and Reporting of Green House Gas Emissions and Removals).

## 1.3 ORGANIZATION

The report represents the data related to Carrier Wheels Private Limited, Uttar Pradesh, as per the scope, inclusions, and exclusions, as detailed out in the report.

## 1.4 RESPONSIBLE PARTY

apoorva@carrierwheels.com

## 1.5 PROJECT TEAM MEMBERS

| S. No | Name | Functions & Location | Responsibility |
|---|---|---|---|
| 1 | **Apoorva Jain** | Director | Final Approver & Representation the detailed report to board meeting based on the requirements |

# 2. About the Report

### 2.1 OBJECTIVE OF THE REPORT

Although the overall objective of the report, as stated in the "Declaration Statement," is to demonstrate its commitment to Corporate Mission of Carrier Wheels Private Limited Group worldwide. i.e., "To provide Innovative clean and energy efficient solutions for a better tomorrow." The immediate objective of this report of Carrier Wheels Private Limited, Uttar Pradesh its validation is to provide "limited verified information" regarding its GHG emissions to the intended user, who proposes to use this report input for an Internal sustainability report.

Carrier Wheels Private Limited has developed this GHG inventory to measure, manage, and report its GHG emissions and to identify opportunities for reduction.

### 2.2 INTENDED USE AND INTENDED USERS OF THE REPORT

This report is a voluntary communication to various stakeholders of Carrier Wheels Private Limited, including Customers, Management, Investors, Financiers, Government and the Public at the large. Stakeholders can obtain necessary information on the GHG performance of the facility/company and track the performance with respect to the organization's objectives to GHG performance. This report will further serve as the launching pad for more detailed and inclusive studies for all the installations and operations. Since GHG emissions and energy/fuel have a direct correlation, this may serve as an ideal platform to identify GHG hotspots for future GHG emission/fuel consumption reduction programs. This report will also be the reference point for any verification of the GHG inventory to be estimated in the future, should the management so decide. As the ESG program is governed by Carrier Wheels Private Limited, Corporate Management, and submits the data to them. Once the Corporate ESG Assessment is done and the data is disclosed on the Carrier Wheels Private Limited website. We are providing the report to intended users based on the demand as well.

### 2.3 REPORTING PERIOD

#### 2.3.1 FREQUENCY AND BASE YEAR CALCULATION

Carrier Wheels Private Limited is assessing GHG performance on an annual basis. Hence, Inventorization of GHG emissions will be taken up on an annual frequency. The historical base year 2024-25, where Carrier Wheels Private Limited has one operational site in Uttar Pradesh. present study period includes data from 1st January 2024 to 31st March 2025.

#### 2.3.2 PERIOD OF VALIDITY

This report is valid until a future revision of this report is published, which supersedes this present version or publishes any report which modifies the approach and calculation rationale presented in this report, whichever is earlier.

## 3. Terms and Definitions

The terms and definitions used in this Report are as follows.

- **Greenhouse Gas (GHG):** Gaseous constituent of the atmosphere, both natural and anthropogenic, that absorbs and emits radiation at specific wavelengths within the spectrum of infrared radiation emitted by Earth's surface, the atmosphere, and clouds.
- **GHG Source:** Physical unit or process that releases a GHG into the atmosphere.
- **GHG Sink:** Physical unit or process that removes a GHG from the atmosphere.
- **GHG Emission:** Total mass of a GHG released to the atmosphere over a specified period.
- **Scope 1 (Direct GHG emission):** GHG emission from GHG sources owned or controlled by the organization.
- **Energy Indirect GHG emission:** GHG emission from the generation of imported electricity, heat or steam consumed by the organization.
- **Other Indirect GHG emission:** GHG emission, other than energy indirect GHG emissions, which is a consequence of an organization's activities, but arises from GHG sources that are owned or controlled by other organizations.
- **GHG activity data:** Quantitative measure of activity that results in a GHG emission or removal.
- **GHG Assertion:** Declaration or Factual and objective statement by the responsible party

- **GHG Inventory:** An Organization's GHG sources, GHG sinks, GHG emissions and GHG removals.
- **GHG Report:** Standalone document intended to communicate an organizations or project's GHG-related information to its intended users. Intended user is Carrier Wheels Private Limited that would like to use this report input for improving its Sustainability reporting.
- **Global Warming Potential (GWP):** Factor describing the radiative forcing impact of one mass-based unit of a given GHG relative to an equivalent of carbon dioxide over a given period.
- **Carbon dioxide equivalent (CO2e):** unit for comparing the radiative forcing of a GHG to carbon dioxide.
- **Base Year (CO2e):** Historical period specified for the purpose of comparing GHG emissions or removals or other GHG-related information over time.
- **Facility:** Single installation, set of installations or production processes (stationary or mobile), which can be defined within a single geographical boundary, organizational unit of production process
- **Organization:** Company, Corporation, firm, enterprise, authority or institution, or part or combination thereof, whether incorporated or not, public, or private, that has its own functions and administration.
- **Responsible Party:** Person or Persons responsible for the provision of GHG assertion and the supporting GHG information.
- **Intended User:** Individual or organization identified by those reporting GHG-related information as being the one who relies on that information to make decisions.
- **Level of Assurance:** Degree of assurance the intended user requires in a validation or verification.
- **Monitoring:** Continuous or periodic assessment of GHG emissions and removals or other GHG-related data.
- **Uncertainty:** Parameter associated with the result of quantification which characterizes the dispersions of the values that could be reasonably attributed to the quantified amount.
- **Scope 1: Direct GHG emissions and removals:** Direct GHG emissions and removals occur from GHG sources or sinks inside organizational boundaries and that are owned or controlled by the organization. Those sources can be stationary (e.g. heaters, electricity generators, industrial process) or mobile (e.g. vehicles).
- **Scope 2: Indirect GHG emissions from imported energy: -** This category includes only GHG emissions due to the fuel combustion associated with the production of final energy and utilities, such as electricity, heat, steam, cooling and compressed air. It excludes all upstream emissions (from cradle to power plant gate) associated with fuel, emissions due to the construction of the power plant, and emissions allocated to transport and distribution losses.

## 4. Declaration Statement by Reporting Organization

Carrier Wheels Private Limited, Uttar Pradesh collectively acting as "Reporting Organization" for the purpose of this report, do hereby declare that the Inventorization of GHG Emissions and reporting has been done in accordance with ISO 14064-1: 2018 (Specification with Guidance at the Organization Level for Quantification and Reporting of Green House Gas Emissions and Removals).

Carrier Wheels Private Limited commits that this report is intended to be verified by third party to "Limited level of assurance" and a "Statement of Assurance" from the same would be annexed to the report after the assessment.

The reporting organization operates through the manufacturing facility located in Uttar Pradesh, India. The facility is wholly owned and managed by Carrier Wheels Private Limited and operate under centralized management, policies, and decision-making authority.

Carrier Wheels Private Limited started collating the data and reporting it in a structured form as per the specifications laid down in ISO 14064-1: 2018.

### 4.1 PRINCIPLES

Carrier Wheels Private Limited declares that the contents of this report are true and fair accounts to the best of our knowledge.

### 4.2 RELEVANCE

The intended users of this report are namely Carrier Wheels Private Limited, that proposes to use this report input for improving its sustainability reporting.

### 4.3 COMPLETENESS

The report is complete with all aspects within the scope defined. This was verified based on the data collated by the team and assessed based on the data evaluation.

### 4.4 CONSISTENCY

All efforts have been made to collate the data on a monthly basis for the reporting period of the report. Exemptions, if any, are highlighted and clearly marked in the report. Inconsistencies, if any, are not expected to lead to a material discrepancy to affect the decisions of intended users.

The data has been presented in a manner so as to facilitate meaningful comparison and the ability to transpose and/or change the reporting year, if required, in future (e.g., change of financial year or reporting period)

### 4.5 ACCURACY

The organization has made all reasonable and practical efforts to remove bias and uncertainties by involving process owners and engaging external facilitators.

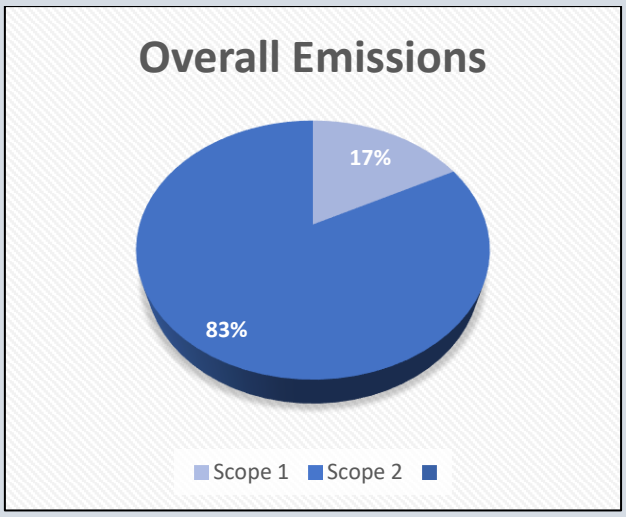
### 4.6 TRANSPARENCY

The organization has made all reasonable and practical efforts to ensure the transparency, as data was transferred directly from the user departments to the external facilitators, and no filters were introduced prior to its inclusion in the report.

## 5. Quantification of GHG Emissions

Total GHG emissions of base year 2024-25 $tCO_2e$

| Type of Emission | Scope/Category | Overall Emissions (tCO2e) | Calculation Methodology |
|---|---|---|---|
| Direct | Scope1 | **648.22** | Refer Excel spreadsheet |
| Indirect | Scope 2 | **3,094.90** | Refer Excel spreadsheet |




### 5.1 DIRECT EMISSIONS (SCOPE 1)

Emissions caused by sources that are owned or controlled by the organization (e.g., generation of electricity, company-owned vehicles, use of refrigerant.

| S. No. | Category | Overall Emissions (tCO2e) | Calculation Methodology |
|---|---|---|---|
| 1 | Stationary Combustion | 394.09 | Refer Excel spreadsheet |
| 2 | Mobile Combustion | 248.39 | Refer Excel spreadsheet |
| 3 | Fugitive Emissions | 4.14 | Refer Excel spreadsheet |
| 4 | Emissions by Waste | 1.57 | Refer Excel spreadsheet |
| | **TOTAL** | **648.19** | |

### 5.2 INDIRECT EMISSION (SCOPE 2)

Emissions from the indirect sources (e.g., emissions from the generation of purchased electricity consumed by the organization).

| S. No. | Category | Overall Emissions (tCO2e) | Calculation Methodology |
|---|---|---|---|
| 1 | Purchased Electricity | 3,094.90 | Refer Excel spreadsheet |

## 6. Organizational Boundaries

### 6.1 ABOUT THE GROUP & CARRIER WHEELS PRIVATE LIMITED REGION

**Carrier Wheels Private Limited** is a leading wheel manufacturing company based in India, globally recognized for its engineering excellence and high-performance steel wheel solutions. The company operates a world-class, vertically integrated manufacturing facility equipped with advanced production technologies covering forming, welding, machining, painting, and quality testing. With a strong focus on quality, innovation, and operational efficiency, Carrier Wheels serves a wide range of sectors including agriculture, automotive, construction, OTR, and specialty applications. Its commitment to robust engineering standards and continuous improvement has positioned the company as a trusted partner for OEMs and global customers.

**CWPL** specializes in the manufacture of over 300 variants of steel wheels, including India's smallest, largest, and widest agricultural wheels, with an installed capacity of 2,000,000 wheels per annum. Through in-house engineering, tool design, and stringent quality control systems, the company ensures consistent product performance and reliability. Its manufacturing approach integrates modern technology with responsible production practices, enabling supply to customers across 20+ countries.

### 6.2 ABOUT THE REPORTING ORGANIZATION

The reporting organizations for this report are Carrier Wheels Private Limited, Uttar Pradesh

Carrier Wheels Private Limited operates a modern manufacturing facility in Uttar Pradesh, India, producing high-quality steel wheels for agricultural, automotive, construction, OTR, and specialty applications.

| Location Name | Site Name | Full Address | Latitude | Longitude | Property |
|---|---|---|---|---|---|
| Shamli, Uttar Pradesh | Corporate Office & Plant | 911, Industrial Area, 6th Milestone, Panipat Road, Shamli, (U.P)- 247776, INDIA | 29°25'15.78"N | 77°15'28.62"E | Owned |

### 6.3 ORGANIZATIONAL BOUNDARIES

a) **Control:** Carrier Wheels Private Limited, India Region has financial and operational control over the site location(s) covered under the scope. Hence, the Operational Control approach for setting the organizational boundaries has been selected.

b) **Equity share:** The Carrier Wheels Private Limited accounts for its portion of GHG emissions and/or removals from respective facilities.

Carrier Wheels Private Limited, India Region has 100% financial and operational control over the Uttar Pradesh site covered under the scope. Hence, the Operational Control approach for setting the organizational boundaries has been selected.

### 6.4 OPERATION BOUNDARIES

Carrier Wheels Private Limited have selected to quantify, verify, and report its Direct GHG emissions (Scope 1), Energy Indirect emissions (Scope 2) related to each of the facility mentioned above.

The term "Scope" for the categorization of emissions in Scope 1, & 2 has not been specified in ISO 14064 -1:2018 specifications, but in the World Resource Institute (WRI-GHG protocol). However, these terms have been included in the report to provide clarity to intended users, wherever required. This is intended to improve the consistency and reliability of the report.

The organizational boundary for this GHG inventory has been established using the Operational Control approach, in accordance with ISO 14064-1:2018. Under this approach, the organization accounts for 100% of GHG emissions from operations over which it has full authority to introduce and implement operating policies.

## 7. Reporting Boundary / Scope of ISO 14064-1:2018

Carrier Wheels Private Limited is a group under which below factories/offices operate:

1. **Corporate Office & Plant** - 911, Industrial Area, 6th Milestone, Panipat Road, Shamli, (U.P)- 247776, INDIA

### 7.1 ESTABLISHING REPORTING BOUNDARY

Reporting boundary establishment includes identifying GHG emissions and removals associated with the Carrier Wheels Private Limited operations. The GHG emission and removals is categorized into direct emissions, Indirect emissions (Energy, upstream transportation and distribution, downstream transportation and distribution, employee commuting, and waste generated in operations). Sewage treatment plant activity is included in the waste generated in operations.

**Significance criteria of all the emissions will be as below: -**

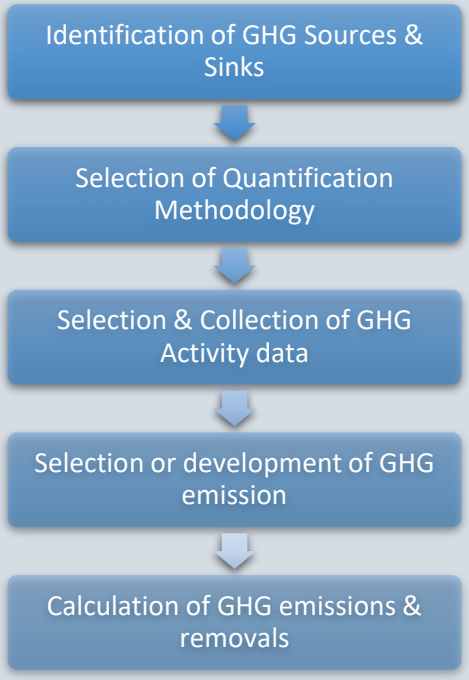
1. **Significant**: - Any emission source lying in any category (1 to 9/Scope 1 to 3) which is/will be having potential to produce more than or equal to 5% of tCO2e w.r.t. total tCO2e generation by the Organization.
2. **Non - Significant**: - Any emission source lying in any category (1 to 9/Scope 1 to 3) which is/will be having potential to produce less than 5% of tCO2e w.r.t. total tCO2e generation by the Organization.

For Carrier Wheels Pvt. Ltd. – Shamli, Scope 2 emissions are the most dominant, accounting for over 80% of the total GHG emissions. The major contributor is mobile combustion, followed by smaller shares from stationary combustion, refrigerants, fire extinguishers, and wastewater treatment. These emissions fall under the company's direct operational control, presenting a strong opportunity for emission reductions through fuel-efficient transport, cleaner energy sources, and optimized process management.

(Please refer Annexure: Scope 1;

Annexure: Scope 2)

Carrier Wheels Private Limited has quantified and documented its emissions from different sources based on its emission activity data, selected quantification methodology, and emission factor



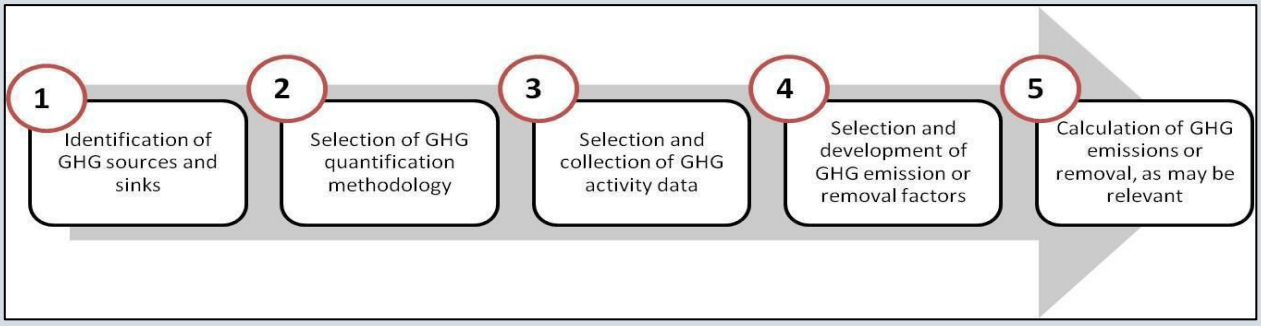

## 8. Quantification of GHG Emissions and Removals

### 8.1 GHG SINK

Carrier Wheels Private Limited have rooftop solar installations.

### 8.2 GHG EMISSIONS AND REMOVALS

Total GHG emissions and removals from the business site(s) of Carrier Wheels Private Limited, Uttar Pradesh, was/were assessed through collection of data from designated responsible sources, and also site visit was conducted to understand the processes. The total GHG emissions from both the sites under direct, indirect, and other indirect emissions were inventoried through the following five-step process.




### 8.3 IDENTIFICATION OF GHG EMISSION SOURCE, SINKS & AVOIDED EMISSIONS

| S. No. | Source of emissions | Source of data | Emissions (t $CO_2e$) |
|---|---|---|---|
| 1 | DG Set operation – Stack emissions | Fuel Combustion | **394** |
| 2 | Company owned vehicle | Fuel Combustion | **248.39** |
| 3 | Refrigerant Gas | Administration | **3.97** |
| 4 | Purchase of Electricity – Emissions at the source of production | Electricity bills | **3,094.90** |
| 5 | Waste generated in facilities | Administration | **1.57** |

| | | | |
|---|---|---|---|
| **6** | Fire Extinguishers | Administration | **0.173** |
| ***In year 2024-25 Total GHG Emissions-** | | | **3,743.00** |

| S. No. | Source of Emission Reduction/Avoidance | Source of data | Capacity |
|---|---|---|---|
| 1 | Solar | Administration | 575 KW |

### 8.4 METHODOLOGY

The calculations have been compiled using a qualitative approach based on the GHG protocol, the EPA, and the IPCC. The methodology uses a combination of calculation-based (GHG activity data multiplied by GHG emission or removal factors) and measurement based (either continuous or intermittent approach). This is because direct measurement of GHG emissions by monitoring concentration and flow rate is not common.

To minimise uncertainty and improve consistency and accuracy, the selected methodology for GHG quantification is GHG activity DATA multiplied by GHG emission factors.

*Emission factor reference attached in* Annexure: (Emission Factor & Reference)

### 8.5 SELECTION AND COLLECTION OF GHG ACTIVITY DATA

The following steps are followed during the selection and collection of GHG activity DATA.

1. Based on the GHG sources and sinks as listed in the GHG sources list, relevant GHG activity data are identified as required under the chosen GHG quantification methodology.
2. The current set of data collection procedures is followed to capture the GHG activity data.
3. GHG activity data are extracted from the existing data collection system.
4. GHG activity data collection, storage, and reporting procedures for uncaptured GHG activity data are developed (wherever such data was not available) as per the selected quantification methodology.

### 8.6 SELECTION AND COLLECTION OF GHG EMISSION DATA

| S. No | Source of emissions | Activity data | Source |
|---|---|---|---|
| 1 | DG Set operation – Stack emissions | Fuel consumption | Fuel Combustion |
| 2 | Company owned vehicle | Fuel consumption | Fuel Combustion |
| 3 | Refrigerant Gas | Gas refilling consumption | Administration (Maintainance Record) |
| 4 | Purchase of Electricity – Emissions at the source of production | Electricity consumption | Electricity bills |
| 5 | Waste Generated in Facilities | Weight of waste generated | Administration (LogBook) |

### 8.7 SELECTION AND DEVELOPMENT OF GHG EMISSION FACTORS

As per the UNFCCC, an emission factor is defined as the average emission rate of a given GHG for a given source, relative to units of activity. GHG emission factor is needed to calculate GHG emission from different sources and plays an important role in GHG inventory. ISO 14064-1-2018, Clause 6.3 defines greenhouse gas emission or removal factor as a relating activity data to GHG emissions or removals. Emission factors have been sourced from publicly available documents. The emission factor for purchased electricity (indirect energy use) has been sourced from Central Electricity authority of India, whereas emission factors for stationary combustion sources have been sourced from 2006 IPCC Guidelines for National Greenhouse Gas Inventories and the GHG protocol. Global Warming Potential values have been sourced from the IPCC Fifth and Sixth Assessment Reports. This corresponds to the use of the Tier-02 approach for determination of GHG emissions. Emission factors for GHG emissions from mobile sources (transportation of raw materials and product distribution) were sourced from India GHG program.

*Please refer* Annexure: (Emission Factor & Reference) *for complete details*

## 8.8 GHG EMISSION QUANTIFICATION

GHG accounting is done using guidelines mentioned in ISO 14064-1-2018 and the GHG protocol. As described in section 6.2.3, the GHG quantification is done by GHG activity data is multiplied by the relevant GHG emission/removal factors. The GHG calculations are made in an MS Excel-based spread sheet. The GHG emissions under direct 4GHG emissions, energy indirect GHG emissions and other indirect GHG emission categories are given below.

**Direct GHG Emissions (Scope 1/ Category 1)**

Direct GHG emission account for all fossil fuel combustion for its DG set operations, transports, movement of company-owned vehicles, refrigeration and air-conditioning equipment, chiller, fire extinguishers, and circuit breakers. All data for energy consumed by manufacturing processes is monitored and collated by the Facilities team. Hence, all this data has been collated from Facilities team under Direct GHG Emissions (or Scope 1 emissions).

### Energy Indirect Emissions (Scope 2)/ Category 2: Indirect GHG emissions from imported energy

Indirect GHG emissions are associated with energy purchased by the organization/facility. The purchased electricity could be electricity or steam, or heat. The emission source could be outside of the Organizational boundary, but since the energy is used by the facilities, the associated emissions are calculated and categorized as Scope 2 emissions.

Purchase grid electricity, which is supplied by National Grid at both the sites, and quantification is done through meters installed at site.

## 8.9 GHG QUANTIFICATION INCLUSIONS & EXCLUSIONS

The GHG inventory for the reporting period has been prepared in accordance with ISO 14064-1:2018, considering all relevant emission sources and activities falling within the defined organizational and operational boundaries of the reporting organization. GHG emissions have been quantified for all significant Scope 1 & Scope 2 categories based on relevance, data availability, materiality, and operational control.

## 8.10 MATERIALITY

Materiality is defined as a concept that individual, or the aggregation of errors, omissions, and misrepresentations, may affect the GHG assertion and could influence the intended user's decisions. The materiality threshold is set at 5%. All shall ensure that any omission of data or GHG sources, any misrepresentations, should not affect the GHG inventory by more than 5%.

## 8.11 HISTORICAL BASE YEAR AND BASE YEAR GHG COMPARISON

No, Historical Base year data. 2024-25 will be considered as the Base year.

## 8.12 RECALCULATE ITS BASE YEAR

GHG Protocol explains in A Corporate Accounting and Reporting Standard, " that the Companies often undergo significant structural changes such as acquisitions, divestments, and mergers. These changes will alter a company's historical emission profile, making meaningful comparisons over time difficult. For consistent tracking of emissions over time, the base year emissions may need to be recalculated as companies undergo significant structural changes such as acquisitions, divestments, and mergers.

Structural/Operational business changes, including acquisitions that result in a significant change to overall emissions.

- Source ownership and control changes (changes in operational control over the GHG sources)
- Quantification methodology changes or data improvements that result in a 10 per cent or greater change to overall emissions and
- Structural/Operational business changes, including acquisitions that result in a significant change to overall emissions.

- -Source ownership and control changes (changes in operational control over the GHG sources)
- Quantification methodology changes or data improvements that result in a 10 per cent or greater change to overall emissions

### 8.13 ORGANIZATIONAL ACTIVITIES TO REDUCE GHG EMISSIONS OR INCREASE GHG REMOVALS.

**GHG Reduction Initiatives –** Carrier Wheels Private Limited cuts its efforts to reduce the GHG emissions through Rooftop Solar installation for all the activities, which has saved energy consumption to some extent.

## 9. Assessing and Reducing Uncertainty

The methodology presented here addresses the estimation of $CO_2$, $CH_4$ from Uttar Pradesh. Uncertainty is used to characterize the dispersion of values that could be reasonably attributed to a measured quantity (IPCC, 2006). The overall uncertainty associated with a GHG inventory is driven primarily by the uncertainty associated with the largest ("key") sources of emissions. Although very high levels of uncertainty may be associated with some sources, our overall impact on the uncertainty of entity-wide emissions, or that of a specific installation, may often be very small. In turn, the uncertainty associated with each individual source depends on the quality and availability of sufficient data to estimate emissions and/or on the ability to measure emissions and properly account for measurement variability.

For the present study, the most relevant data parameters used for the GHG estimation are based on measured values such as poser generation from DG set and purchased electricity from the National Grid. Hence, the uncertainty in the GHG emission calculation relates to the uncertainty of the measurement of the parameters. Since in both cases the parameter value is also used for financial transactions between, Uttar Pradesh and various other entities, the uncertainty of measurement of fossil fuel combustion and electricity purchased from grid are usually below 5% in all cases. When site-specific data are unavailable, good practice will usually be to develop emission estimates using emission factors drawn from references consistent with the IPCC Guidelines/ GHG protocol and national emission factors and the source category-specific good practice guidance. These factors will have been measured under circumstances that are judged to be typical. There will be uncertainties associated with the original measurements, as well as with the use of the factors in circumstances other than those associated with the original measurements. It is a key function of good practice guidance for each source category to guide the choice of emission factors to minimise this second source of uncertainty to the extent possible. The source category specific guidance also indicates, wherever possible, the uncertainty ranges likely to be associated with using these factors. Considering the above, the overall uncertainty in the GHG estimation of the present study is not likely to be more than ±5% and may hence be considered free from material misrepresentation.

Please refer Annexure: Scope 1 for uncertainty ranking

## 10.Document Retention and Record Keeping

Carrier Wheels Private Limited Manufacturing sites are certified with ISO 9001:2015 and ISO 14001:2015. The same procedure is used for document retention and record keeping (Minimum 3 years), and Master list of records are maintained.

## 11.GHG reporting

**Introduction and Statement of Intent**

### 11.1 INTRODUCTION

This GHG Annual Report has been prepared and written in accordance with part 9.3.1 of ISO 14064-1:2018 standard and is designed to be used in the process of moving towards improved GHG Performance.

### 11.2 STATEMENT OF INTENT

This report is prepared with the intent of communicating the GHG emissions related to the organizational value additions to its stakeholders. While doing so, the report also ensures the following.

- Communicating organizational GHG performance to Customers and Potential customers.
- Communicating organizational resolve in GHG performance improvements to the society.

### 11.3 INTENDED USER

The Intended users of this document are identified as given below:

a. Existing and potential customers

b. Regulators and governmental entities

c. Society in general

### 11.4 FREQUENCY OF THE REPORT AND PERIOD OF VALIDITY

This report to be produced every Financial Year, covering a period of one year ending on 31st March.

### 11.5 OBJECTIVE OF THE INITIATIVE

**Carrier Wheels Private Limited** is a manufacturer of high-quality steel wheels catering to agricultural, automotive, construction, OTR, and specialty applications. The company operates a vertically integrated manufacturing facility, encompassing in-house engineering, forming, welding, machining, painting, and quality assurance processes. Its products are known for durability, precision engineering, and consistent performance, meeting the requirements of both domestic and global customers.

### 11.6 DECLARATION STATEMENT BY CARRIER WHEELS PRIVATE LIMITED

Carrier Wheels Private Limited, collectively acting as "Reporting Organization" for the purpose of this report, do hereby declare that the Inventorization of GHG Emissions and reporting has been done as per ISO 14064-1: 2018 (Specification with Guidance at the Organization Level for Quantification and Reporting of Green House Gas Emissions and Removals).

Carrier Wheels Private Limited commits that this report is intended to be verified by a third party to "Limited level of assurance" and a "Statement of Assurance" from the same would be annexed to the report after the assessment.

Carrier Wheels Private Limited started collating the data and reporting it in a structured form as per the specifications laid down in ISO 14064-1: 2018.

### 11.7 POLICY ON AVAILABILITY AND METHODS OF DISSEMINATION OF THE REPORT

We will provide to all users. This report including the opinion statement issued by the certification body. Same can be referred on the Server Link.

Carrier Wheels Private Ltd

And for other intended users, the data & report is being managed by Corporate Management of Carrier Wheels Private Limited, and based on demand from any intended user, data is provided accordingly.

## 12.GHG Management and Monitoring Procedures

As per the ISO 14064 -1:2018 clause 8.1, The organization shall establish and maintain GHG information management procedures that - ensure conformance with the principles of this part of ISO 14064 -1:2018, ensure consistency with the intended use of the GHG inventory, provide routine and consistent checks to ensure accuracy and completeness of the GHG inventory, identify and address errors and emissions, and document and archive relevant GHG inventory records, including information management activities. During developing GHG inventory, A Core Team has been

formed. Training on the ISO 14064 -1:2018 specification including introduction of climate change, impacts of GHG emission on environment, role of organization in GHG emission reduction has been conducted for the core team members at Uttar Pradesh where other locations participated through intranet video and where GHG activity data collection and archiving procedures have been discussed with core team.

## 13.Organization Role in Verification Activities

To provide the intended user with the required assurance, the GHG report will be verified at two levels as given below

| S. No. | Type of Verification | Level of Assurance |
|---|---|---|
| 1 | Internal Verification | Reasonable Assurance |
| 2 | Third Party Verification | Limited Assurance |

Internal Verification is being done to identify the responsible authority who has undergone appropriate GHG training from our corporate team. The records will be kept for reference purpose and report will be updated accordingly before the 3rd Party Assessment. – Platform for the intended user.

### 13.1 STATEMENT OF VERIFICATION (INTERNAL)

- For 2024-25 Data, Internal Verification of the Baseline Report was carried out and it was concluded that the Baseline Report is materially correct and is a fair representation of GHG Data and Information. Platform for the intended user to upload the GHG data and verification done by the Functional head with supporting documents. Managed by Corporate
- For 2024-25 Data, Internal Verification of this Annual Report was carried out and it was concluded that this Annual Report is materially correct and is a fair representation of GHG Data and Information.

The data furnished in this GHG Report and supporting GHG Inventory Quality Management System has validated that the GHG Annual Report for the period **1st April 2024 to 31st March 2025** is prepared in accordance with ISO 14064-1-2018 International Standard.

## 14.Annexure: Significance Criteria

Data Certainity is 5% (overall)

## 15.Annexure: Scope 1

**Stationary Combustion**

| S. No. | Contents | Quantity | Unit | Converted Quantity | Converted Unit | Emission Factor | Unit of Emission Factor | TCO2e | Source | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **PNG GAS** | 76358 | SCM | | - | 2.066 | CM/kgCO2e | 157.75563 | DEFRA | Fuels Sheet (D40) |
| 2 | **LPG Gas** | 80406.00 | Kg | 80.41 | Tonnes | 2939.36 | Tonnes/kgCO2e | 236.34 | DEFRA | Fuels Sheet (D35) |
| **Total** | | | | | | | | 394.10 | | |

**Mobile Emission**

| Name | Ownership | Vehicle Number | Fuel Consumed | Unit | Emission Factor | TCO2e | Source | Remarks |
|---|---|---|---|---|---|---|---|---|
| Truck 1 | Company | 2857 | 8353 | Litre | 2.66155 | 22.23192715 | DEFRA | Fuels Sheet (D76) |
| Truck 2 | Company | 8105 | 11488 | Litre | 2.66155 | 30.5758864 | DEFRA | Fuels Sheet (D76) |
| Truck 3 | Company | 8280 | 11268 | Litre | 2.66155 | 29.9903454 | DEFRA | Fuels Sheet (D76) |
| Truck 4 | Company | 8559 | 10279 | Litre | 2.66155 | 27.35807245 | DEFRA | Fuels Sheet (D76) |
| Tryck 5 | Company | 8568 | 9235 | Litre | 2.66155 | 24.57941425 | DEFRA | Fuels Sheet (D76) |
| Truck 6 | Company | 1071 | 12737 | Litre | 2.66155 | 33.90016235 | DEFRA | Fuels Sheet (D76) |
| Truck 7 | Company | 5004 | 7989 | Litre | 2.66155 | 21.26312295 | DEFRA | Fuels Sheet (D76) |
| Truck 8 | Company | 6003 | 10948 | Litre | 2.66155 | 29.1386494 | DEFRA | Fuels Sheet (D76) |
| Truck 9 | Company | 7002 | 10613 | Litre | 2.66155 | 28.24703015 | DEFRA | Fuels Sheet (D76) |
| Tractor | Company | 5850 | 390 | Litre | 2.66155 | 1.0380045 | DEFRA | Fuels Sheet (D76) |
| Ambulance | Company | 3302 | 20 | Litre | 3.66155 | 0.073231 | DEFRA | Fuels Sheet (D76) |
| Total | | | | | | 248.395846 | | |

**Fugitive Emission**

**Fire Extinguisher**

| S.No. | LOCATION | TYPE | CAPACITY (in Kg) | No. of Cylinders | Source | Emission Factor | TCO2e |
|---|---|---|---|---|---|---|---|
| 1 | Fire Extinguisher | ABC | 4 | 11 | Climatiq | 0.38 | 0.01672 |
| 2 | Fire Extinguisher | ABC | 6 | 52 | Climatiq | 0.38 | 0.11856 |
| 3 | Fire Extinguisher | ABC | 25 | 4 | Climatiq | 0.38 | 0.038 |
| | **Total** | | | | | | 0.17328 |

| | |
|---|---|
| Total Fugitive Emissions | 4.14968 |

**Air Conditioner Refrigerants**

| S. No. | Type | Capacity | Refrigerant | Amount (in Kg) | Source | Emission Factor | Emissions (tCO2e) |
|---|---|---|---|---|---|---|---|
| 1 | Gas Refilling | 1.5 | R32 | 1.2 | DEFRA | 677 | 0.8124 |
| 2 | Gas Refilling | 2 | R32 | 2 | DEFRA | 677 | 1.354 |
| 3 | Gas Refilling | 1.5 | R22 | 1 | Climatiq | 1810 | 1.81 |
| | **Total** | | | | | | 3.9764 |

| Effluent Treatment Plant (ETP) | Quantity | Unit | Source | Emission Factor | Emission (tCO2e) |
|---|---|---|---|---|---|
| Processing per day | 7.34 | $m^3$ | - | - | - |
| Total Operational Days | 303 | - | - | - | - |
| BOD Input | - | mg /l | - | - | - |
| BOD Output | - | mg /l | - | - | - |
| COD Input | - | mg /l | - | - | - |
| COD Output | - | mg /l | - | - | - |
| Total Volume Processsed | 2224.02 | m3 | ClimateIQ | 0.708 | 1.57460616 |

## 16.Annexure: Scope 2

| Electricity (FY 24-25) | | | | | |
|---|---|---|---|---|---|
| Month | Consumptio | Emission Fact | Emission (tCO2 | Source | Remarks |
| April | 360348 | 0.71 | 255.84708 | CEA-CO2 Baseline Data V21.0 | Results Sheet (Q14) |
| May | 347100 | 0.71 | 246.441 | CEA-CO2 Baseline Data V21.0 | Results Sheet (Q14) |
| June | 366444 | 0.71 | 260.17524 | CEA-CO2 Baseline Data V21.0 | Results Sheet (Q14) |
| July | 350544 | 0.71 | 248.88624 | CEA-CO2 Baseline Data V21.0 | Results Sheet (Q14) |
| August | 371226 | 0.71 | 263.57046 | CEA-CO2 Baseline Data V21.0 | Results Sheet (Q14) |
| September | 358986 | 0.71 | 254.88006 | CEA-CO2 Baseline Data V21.0 | Results Sheet (Q14) |
| October | 366912 | 0.71 | 260.50752 | CEA-CO2 Baseline Data V21.0 | Results Sheet (Q14) |
| November | 341268 | 0.71 | 242.30028 | CEA-CO2 Baseline Data V21.0 | Results Sheet (Q14) |
| December | 378858 | 0.71 | 268.98918 | CEA-CO2 Baseline Data V21.0 | Results Sheet (Q14) |
| January | 414582 | 0.71 | 294.35322 | CEA-CO2 Baseline Data V21.0 | Results Sheet (Q14) |
| February | 341808 | 0.71 | 242.68368 | CEA-CO2 Baseline Data V21.0 | Results Sheet (Q14) |
| March | 360942 | 0.71 | 256.26882 | CEA-CO2 Baseline Data V21.0 | Results Sheet (Q14) |
| **Total** | **4359018** | | **3094.90278** | | |

## 17.Annexure: (Emission Factor & Reference)

- Reference for emission factor: https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2024-25
- Reference for Emission Factor for Refrigerants: https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2024-25
- Reference for ETP and STP: ClimateQ
- Reference for Electricity Emission factor: https://cea.nic.in/wp-content/uploads/2021/03/User_Guide_Version_20.0.pdf
- Reference for ETP Sludge: https://jaspers.eib.org/files/library/2013/calculation-of-ghg-emissions-in-waste-and-waste-to-energy-projects.pdf

# CARRIER WHEELS PVT. LTD.



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